Bibliography on
COLD REGIONS SCIENCE AND TECHNOLOGY

DTIC
ELECTE
MAY 1 0 1995
S
C



DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

VOLUME 48, PART 2, 1994

19950508 145

DTIC QUALITY INSPECTED 1

U.S. Army Corps
of Engineers
Cold Regions Research &
Engineering Laboratory

Bibliography on
COLD REGIONS SCIENCE AND TECHNOLOGY

VOLUME 48, PART 2

Stuart G. Hibben, Editor

Accesion For
NTIS CRA&I ☑
DTIC TAB ☐
Unannounced ☐
Justification
By
Distribution /
Availability Codes
Dist | Avail and / or Special
A-1

BIBLIOGRAPHY ON COLD REGIONS SCIENCE AND TECHNOLOGY
Volume 48, Part 2

This companion issue to Volume 48, Part 1, contains author and subject headings for the volume. In the author index, principal and joint personal and corporate authors are listed along with the title, date, pagination, and language of the document and the accession number. The subject index is composed of four basic elements:

1) terms taken from a controlled vocabulary based on the Thesaurus of Engineering and Scientific Terms (LEX-EJC)
2) free terms added as needed
3) geographic names, generally entered under countries
4) cross references suggesting additional appropriate terms.

The terms are listed in a single alphabetical arrangement, along with title (original, translated, abridged, expanded, or supplied), principal author, date, pagination, and language of pertinent documents, and their accession numbers.

This publication is available from the National Technical Information Service, Springfield, Virginia 22151. When ordering, both Parts 1 and 2 should be requested, as they are complementary.

AUTHOR INDEX

Aagaard, K.
Coupled ice-ocean variability in the Greenland Sea [1993, eng] **48-2352**
Aamo, O.M.
Real time oil spill forecasting during MIZ '93 [1994, eng] **48-4922**
Aario, R.
Glacial dispersal of till constituents in morainic landforms of different types [1992, eng] **48-2516**
Proceedings [1992, eng] **48-2514**
Third International Drumlin Symposium—introduction [1992, eng] **48-2515**
Aarkrog, A.
Radioactivity in polar regions—main sources [1993, eng] **48-4512**
Abbatt, J.P.D.
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications [1993, eng] **48-2315**
Abbott, D.T.
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea [1993, eng] **48-4517**
Abbott, S.
Spring thaw in the land of Cold War coal [1993, eng] **48-1648**
Abd El Halim, A.O.
Effect of highway geometry on distress of asphalt pavements in cold climates [1993, eng] **48-5079**
Abdel-Sayed, G.
Frost effects in soil-steel bridges [1992, eng] **48-2154**
Abdel-Tawab, K.
On the relevance of linear elastic fracture mechanics to ice [1992, eng] **48-1554**
Abdelnour, R.
Assessment of ice boom technology for application to the upper Niagara River [1994, eng] **48-5612**
Abe, A.
Sangoku Pass National Highway [1989, jpn] **48-678**
Abe, M.
Regional economy along the Okhotsk Sea in Hokkaido [1994, eng] **48-3992**
Abe, O.
Estimated seasonal snow cover and snowfall in Japan [1993, eng] **48-2848**
Striped pattern of snowfall and snow cover [1993, eng] **48-2823**
Abe, T.
Evaluation of the data measured by MSR related to snowpack parameter [1990, jpn] **48-4875**
Note on the theory of the Ih-XI transition in ice [1993, eng] **48-3499**
SAR detection of snow-covered objects [1994, eng] **48-5135**
Abe-Ouchi, A.
How does the Greenland ice sheet geometry remember the ice age [1994, eng] **48-3521**
On the initiation of ice sheets [1993, eng] **48-2853**
Abelentsev, V.V.
Snow and soil moisture-reserve measuring device [1992, eng] **48-4072**
Abell, F.
Movement and decay of the tabular iceberg A-24 [1993, eng] **48-328**
Aber, J.D.
Nutrient cycle in high-elevation spruce-fir stands [1993, eng] **48-1246**
Aboulazm, A.F.
Repeated ice impacts and ship resistance in fragmented ice [1993, eng] **48-100**
Abrahams, P.W.
Geochemical analysis of snow samples [1993, eng] **48-2047**
Abrahamsson, I.
Impact of overflows on acid-base chemistry in limed lakes [1993, eng] **48-3613**
Abramov, V.
General sea ice conditions [1992, eng] **48-2903**
Ocean-ice interactions [1992, eng] **48-2900**
Abramov, V.A.
Soviet-Norwegian expedition in the Barents Sea [1992, eng] **48-736**
Abrams, M.
Hazard assessment of slopes on an ice-capped Mexican volcano [1993, eng] **48-3232**
Abromeit, D.
Military artillery for avalanche control [1993, eng] **48-2647**
Abu-Isa, I.A.
Heated wiper blade using conductive elastomer [1993, eng] **48-1652**
Abumeri, G.H.
BLASIM: a computational tool to assess ice impact damage on engine blades [1993, eng] **48-2640**
Root damage analysis of aircraft engine blade subject to ice impact [1992, eng] **48-4882**
Abyzov, S.S.
Microorganism numbers in the deep layer of the central antarctic ice-sheet [1993, eng] **48-1666**
Achari, G.
Effects of leachates from industrial wastes on soil properties in permafrost areas [1994, eng] **48-3358**
Achenbach, J.D.
New method to obtain 3-D Green's functions for anisotropic solids [1993, eng] **48-5016**
Ackerman, S.A.
Cloud properties inferred from 8-12 micron data [1994, eng] **48-2886**
Ackermann, N.L.
Arctic sea ice sediment enrichment through frazil entrainment [1994, eng] **48-4053**
Ackley, S.F.
Ice dynamics at Ice Station Weddell 1: I. Part 1. [1992, eng] **48-3778**
Ice observations in the western Weddell Sea [1992, eng] **48-3772**
Ice thermodynamics at Ice Station Weddell 1. Part 2 [1992, eng] **48-3777**
Ice-core studies in the western Weddell Sea [1992, eng] **48-3771**
Radar backscatter measurements over Weddell Sea pack ice [1992, eng] **48-3774**
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2 [1992, eng] **48-3770**
Snow properties and surface elevation profiles in the western Weddell Sea [1992, eng] **48-3773**
Acquafredda, P.
New correlation of the glacial moraines in the Southern Apennines, Italy [1990, eng] **48-2102**
Adachi, H.
Earthquake response of offshore structures in sea ice (part 4) [1990, jpn] **48-4669**
Adachi, M.
Road snow removal in Ishikawa Prefecture [1986, jpn] **48-18**
Adams, E.E.
Thermal conductivity of a dry snow cover [1993, eng] **48-2870**
Adams, G.T.
Assessing cold tolerance in *Picea* using chlorophyll fluorescence [1993, eng] **48-133**
Adams, L.J.
Electro-repulsive separation system for deicing [1989, eng] **48-1875**
Adams, P.
Snow and ice in the publications of the Canadian Institute, 1852-1914 [1993, eng] **48-2943**
Adams, P.C.
Climate of the Tanana River floodplain near Fairbanks, Alaska [1993, eng] **48-639**
Adams, W.M.
Snowfall rate and supercooled liquid water content [1993, eng] **48-1725**
Adams, W.R.
Cold weather breathing mask [1990, eng] **48-2173**
Adamson, B.
Stress-optic effect in ice [1994, eng] **48-4448**
Adamson, D.A.
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island [1993, eng] **48-940**
Adenlof, K.A.
Bedload movement controls in a subalpine stream [1994, eng] **48-3510**
Adrian, G.P.
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic [1994, eng] **48-5479**
Infrared spectroscopy of stratospheric trace gases [1994, eng] **48-5475**
Adriani, A.
Mechanisms of antarctic stratospheric cloud formation [1993, eng] **48-339**
Adrianova, O.A.
Tribology of frost-resistant antifriction materials [1994, eng] **48-3980**
Adylova, Ch.U.
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan [1990, rus] **48-1237**
Aellen, M.
Discharge of glacierized basins and glacier mass balance [1990, eng] **48-1573**
Glaciers of the Swiss Alps 1987/88 and 1988/89 [1993, ger] **48-1211**
Water balance and glacier mass balance in the Swiss Alps [1990, fre] **48-1572**
Afonina, O.M.
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago) [1993, rus] **48-1632**
Liverworts of Chukotka [1993, rus] **48-1641**
Ageta, Y.
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal [1993, eng] **48-2781**
Agnew, T.
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns [1993, eng] **48-2347**
Aguirre-Puente, J.
Model of elastic wave propagation in frozen media—comparison with experiment [1993, eng] **48-417**
Two-dimensional Stefan problem around a cooled buried cylinder [1993, eng] **48-5211**
Ultrasonic measurements in frozen soils [1993, eng] **48-465**
Ahti, K.
Climatic mapping of ice loads based on airport weather observations [1993, eng] **48-811**
Aihara, M.
Application of in-situ surface recycling methods in cold areas [1993, eng] **48-5072**
Aimedieu, P.
Aerosol composition of the Scandinavian arctic stratosphere [1994, eng] **48-5451**
Ait-Kadi, A.
Rheological properties of regular and polymer modified asphalts [1993, eng] **48-5090**
Aïtcin, P.C.
High performance air entrained concrete for a bridge in Quebec [1993, eng] **48-2657**
Aitken, A.E.
Macrobenthos communities in Baffin I. fiords [1993, eng] **48-1833**
Aitken, G.W.
Movement of mortar baseplates on soil; mortar stability report 1(U) [1973, eng] **48-3488**
Aivazian, G.M.
Hail formation in a cloud measured by ice absorption index [1993, eng] **48-2005**
Aĭzin, E.M.
Glacier runoff and streamflow in Central Asia [1993, eng] **48-2783**
Study of glacial runoff regime in central Tien Shan during 1989-1990 [1993, eng] **48-4573**
Aĭzin, V.B.
Glacier runoff and streamflow in Central Asia [1993, eng] **48-2783**
Model of calculation of glacial runoff in central Tien Shan glacier system [1993, eng] **48-4584**
Study of glacial runoff regime in central Tien Shan during 1989-1990 [1993, eng] **48-4573**
Ajvazyan, H.M.
Infrared investigation of water/ice physical properties [1994, eng] **48-5155**
Akagawa, S.
Initiation of segregation freezing observed in porous soft rock during melting process [1993, eng] **48-5191**
Akamatsu, J.
Glacier-generated ground motions at Bomi, southeastern Tibet [1993, eng] **48-2754**
Akan, A.O.
Modeling enrichment of soluble pollutants in snow covers [1994, eng] **48-4251**
Akatov, V.V.
Spotty distribution of alpine plants in the western Caucasus [1993, rus] **48-5281**
Åkerman, J.
Mountain permafrost in Europe [1993, eng] **48-5186**
Akihara, S.
Experimental study on the overtopping of breakwaters by ice floes and waves [1993, eng] **48-156**
Akimoto, T.
Field performance of porous asphalt pavement in cold areas [1993, eng] **48-5085**
Akitaya, E.
Characteristics of snow cover taking account of ram hardness in Hokkaido [1992, jpn] **48-3205**
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92 [1992, jpn] **48-3154**
Depth-hoar crystal growth in the surface layer under high temperature gradient [1993, eng] **48-2825**
Growth rates of depth hoar (II) [1992, jpn] **48-3204**
Investigation of sun crust formation using field data and laboratory experiments (I) [1992, jpn] **48-3203**

Regional observations of snow cover in Hokkaido, February 1992 [1992, jpn] 48-3153
Report of pit-wall observations of snow cover in Sapporo 1991-92 [1992, jpn] 48-3152

Aksenov, B.G.
Ice segregation in frozen soils [1993, eng] 48-4821

Aksenov, V.I.
Plastic frozen (saline) soil as bases [1993, eng] 48-349

Aktary, N.
Observations of a snow band in a symmetrically unstable flow over Alberta [1993, eng] 48-3496

Al-Joulani, N.
Strengthening of marginal soils by confined stone columns [1994, eng] 48-3355

Al-Khalil, K.M.
Anti-icing system results on a NASA 0012 airfoil [1993, eng] 48-4883
Development of an improved model for runback water on aircraft surfaces [1994, eng] 48-4063
Ice accretion and performance degradation calculations with LEWICE/NS [1993, eng] 48-4884

Al-Rizzo, H.M.
Range errors in global positioning system during ice cloud and snowfall periods [1994, eng] 48-4164

Ala, P.
Role of ice-binding proteins in frost tolerance of winter rye [1993, eng] 48-1254

Alaska. University. Geophysical Institute
Biennial report 1991-1992 [1993, eng] 48-3122

Albert, D.G.
Attenuation of outdoor sound propagation levels by a snow cover [1993, eng] 48-2607
Permeability of temperate snow: preliminary links to microstructure [1993, eng] 48-2939

Albert, M.R.
Proceedings [1993, eng] 48-2817
Snowpack stratigraphy evolution at forested and open sites [1993, eng] 48-2946
Some numerical experiments on firn ventilation with heat transfer [1993, eng] 48-2845
Stability of thick ice formation in pipes [1993, eng] 48-866

Albertson, M.E.
Air conditioning system with a conduit for deicing driveways [1992, eng] 48-2241

Alborzi, K.
Axial conduction during liquid freezing in cooled tubes [1994, eng] 48-4704

Albright, A.E.
Glycol ice protection system on a general aviation airfoil [1981, eng] 48-1142

Aleksakhin, R.M.
Radioecology of the northern and northwestern part of Russia [1993, eng] 48-4563

Aleksandrov, E.B.
Gradientometric magnetic survey of arctic ice [1993, eng] 48-3248

Aleksandrov, IU.P.
Heat transfer in translucent enclosed structures [1986, rus] 48-1288

Alekseev, IU.N.
Hydrodynamic problems of propellers for icebreaking ships [1993, eng] 48-120
Investigation into the effects of ice cover parameters upon ship resistance [1994, eng] 48-3950
Method for ship level ice resistance computation [1993, eng] 48-163

Alekseev, V.A.
Snow cover metal content near an earthquake epicenter [1993, eng] 48-1824

Alekseev, V.V.
Quaternary geology of the shelf areas surrounding Franz Josef Land [1994, eng] 48-5639

Alekseev-Gai, A.
Escape from the Arctic [1993, rus] 48-5399

Alekseeva, I.IU.
Energy efficiency in heating and ventilating [1994, eng] 48-3863

Alekseeva, O.I.
Creation of water-impervious frozen screens in earth dams in central Yakutia [1993, eng] 48-514

Alekseevskii, N.I.
Effect of mining operations on the flow of sediments and on ice shelves [1992, rus] 48-4802

Alenius, P.
Temperature and salinity statistics for the northern Baltic Sea 1961-1990 [1994, eng] 48-4949

Alexander, V.
Arctic marine ecosystems [1992, eng] 48-1261
New research vessel for arctic research [1993, eng] 48-1027
Primary production in sea ice covered waters [1990, eng] 48-4665

Alger, R.
Snow characterization for traction testing: a survey of techniques used [1993, eng] 48-1177
Three approaches to winter traction testing using instrumented vehicles [1994, eng] 48-3105
Winter traction testing using three different instrumented vehicles [1993, eng] 48-757

Alger, R.G.
New concept in trail grooming—"the KRC Groomer" [1994, eng] 48-3371

Ali, G.
Snowmelt runoff in a Pakistani river basin [1989, eng] 48-2602

Ali, M.A.
Underwater photic environment of two subarctic Icelandic lakes [1993, eng] 48-1831

Alifanova, A.A.
Impact of salt type on deformation of frozen saline soils [1993, eng] 48-5234

Aliotta, F.
Dynamical states in liquid water [1993, eng] 48-2367

Allaire, M.A.
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor [1993, eng] 48-826

Allamandola, L.J.
Astrochemical implications of ice system condensation [1993, eng] 48-2919
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io [1993, eng] 48-2997
Organic molecule production in cometary ice analogs [1993, eng] 48-1751
Spectroscopic detection of molecular hydrogen frozen in interstellar ices [1993, eng] 48-769

Allard, M.
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec) [1994, eng] 48-3393
Dune development on a Canadian subarctic coastline [1994, eng] 48-3805
Effect of physical properties of frozen ground on electrical resistivity logging [1994, eng] 48-5113
Monitoring thawing front movement by self-potential measurement [1993, eng] 48-383
Quaternary geology and geocryology in Nunavik, Canada [1993, eng] 48-350
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec [1990, eng] 48-1521
Thermal regime of discontinuous permafrost in Quebec [1993, eng] 48-879

Allely, R.D.
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska [1994, eng] 48-5102

Allen, D.N.
Helicopter icing module for TWI [1985, eng] 48-1277

Alley, R.B.
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] 48-1899
Greenland hoar formation indicated by brightness temperatures [1993, eng] 48-4653
In search of ice-stream sticky spots [1993, eng] 48-3570
Preliminary depth-age scale of the GISP2 ice core [1994, eng] 48-5407
Radiometry of surface hoar on the Greenland ice sheet [1993, eng] 48-1320
Sensitivity of the ice-divide position in Greenland to climate change [1994, eng] 48-4444
Sticky spots under ice streams [1992, eng] 48-2623

Allison, A.L.
Antarctic glacier-tongue velocities from Landsat images: first results [1993, eng] 48-1349

Allison, J.
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin [1992, eng] 48-2090

Alm, T.
Palynostratigraphy of Quaternary deposits on a Norwegian island [1993, eng] 48-1008

Alscher, R.G.
Cold-hardiness-specific glutathione reductase isozymes in red spruce [1994, eng] 48-4835
Purification of enzymes specific for spruce cold hardiness [1994, eng] 48-4834

Alstrup, V.
Lichenicolous fungi from Spitsbergen [1993, eng] 48-5003
Lichenicolous fungi of Greenland 1990, eng] 48-67

Alt, B.T.
1550-1620: a period of summer accumulation in the Queen Elizabeth Islands [1985, eng] 48-2729

Amacher, M.C.
Modeling the transport of heavy metals in soils [1990, eng] 48-3493

Ambach, E.
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view [1993, eng] 48-4092

Ambach, W.
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view [1993, eng] 48-4092

Ameen, F.R.
Experimental study of warm-air defrosting of heat-pump evaporators [1993, eng] 48-3198

Amenomori, M.
Prediction of daily snowfall depth obtained from neuro computing method [1993, jpn] 48-3179

American Society for Testing and Materials
Standard test for determining air change by a tracer gas [1993, eng] 48-2700

Ammosov, A.P.
Deformation of a pressure vessel during failure caused by a technological defect [1990, rus] 48-55
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels [1990, rus] 48-56

Ammosov, S.P.
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels [1990, rus] 48-56

Amoris, E.
Development of a steel grade for arctic applications [1994, eng] 48-3981

Amrhein, C.
Deicing salt effects on roadside soil chemical mobility [1993, eng] 48-1759
Trace metal solubility in soils and waters receiving deicing salts [1994, eng] 48-4159

Amundson, R.G.
Physiological response to controlled freezing of attached red spruce branches [1993, eng] 48-2452
Red spruce bud mortality at Whiteface Mountain, New York [1993, eng] 48-1217
Water stress effects on spruce cold tolerance [1993, eng] 48-134

An, V.
Permafrost in the north of Korean peninsula [1993, eng] 48-511

An, W.D.
Climate change influence on highway stability in a permafrost zone [1993, eng] 48-351

Anandakrishnan, S.
Micro-earthquakes beneath West Antarctica ice streams [1993, eng] 48-3571
Radiometry of surface hoar on the Greenland ice sheet [1993, eng] 48-1320
Sensitivity of the ice-divide position in Greenland to climate change [1994, eng] 48-4444

Ananth, R.
Thermal convection, morphological stability and the dendritic growth of crystals [1992, eng] 48-2894

Ananthaswamy, V.
Influences of aerodynamic forces in ice shedding [1994, eng] 48-4829

Ancker, P.E.
Crash landings in Greenland—1. Operation Bolero [1980, dan] 48-2649
Crash landings in Greenland—2. The white wilderness [1980, dan] 48-2650
Crash landings in Greenland—4. Traces obliterated [1986, dan] 48-2652
Icebound curiosities of aviation history [1981, dan] 48-2651

Andersen, J.K.
Autonomous rapid thermal ice penetrating method and system [1991, eng] 48-2249

Andersen, R.
Finite element analysis of ice sheet indentation [1993, eng] 48-167
Modelling ductile behavior of columnar ice using computational plasticity [1994, eng] 48-5565

Anderson, B.E.
AASE-II observations of trace carbon species distributions in the mid to upper troposphere [1993, eng] 48-2584
Summertime tropospheric ozone distributions over central and eastern Canada [1994, eng] 48-4628

Anderson, D.N.
Rime-, mixed- and glaze-ice evaluations of three scaling laws [1994, eng] 48-4890

Anderson, F.
Winter maintenance on Transport Canada airports [1993, eng] 48-5083

Anderson, I.
Antarctic career move for ageing torpedo [1993, eng] 48-3626

Anderson, J.G.
Airborne Arctic Stratospheric Expedition II: an overview [1993, eng] 48-2577

Anderson, K.O.
Low temperature properties of asphalt cements [1993, eng] 48-5071

Anderson, L.G.
Water masses and circulation in the Eurasian Basin [1994, eng] 48-4222

Anderson, M.G.
Evaluation of deterministic models for near surface soil moisture prediction [1988, eng] 48-5377

Anderson, M.R.
Radiometric derivations of Greenland ice sheet surface variations [1993, eng] 48-1328

Anderson, P.M.
Late Quaternary history of tundra vegetation in northwestern Alaska [1994, eng] 48-5065
Long-term Kolyma air temperature variations from tree rings [1994, eng] 48-3509

Andersson, B.
Cross-country mobility of tracked vehicles [1993, eng] 48-1169

AUTHOR INDEX

Andersson, L.O.
Ice accretion and ice adhesion to polymer materials [1993, eng] 48-4003
Ice adhesion to rubber materials [1994, eng] 48-4252
Andersson, T.
New functional concepts for marine snowband formation [1994, eng] 48-5004
Ando, A.
Tenth Five-Year Plan for road maintenance [1988, jpn] 48-575
Ando, M.
Studies on freezing and thawing of flat ice on the water surface [1993, jpn] 48-3177
Ando, S.
Effect of heat conductor plates on ice formation near a wall [1993, eng] 48-864
Andreas, E.L.
Atmospheric sciences on Ice Station Weddell [1992, eng] 48-3780
Comments on "On the contribution of spray droplets to evaporation" [1994, eng] 48-4023
Andreev, M.D.
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States [1992, rus] 48-1954
Andreev, M.P.
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago) [1993, rus] 48-1632
Andres, D.
Criteria for increased ice discharge capacity of the upper Niagara River [1994, eng] 48-5607
Studies of ice jamming in the upper Niagara River: introduction and background [1994, eng] 48-5605
Andrew, R.
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene [1993, eng] 48-4287
Andrews, J.T.
Baffin I. environment of the last 11,000 years [1985, eng] 48-2727
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation [1993, eng] 48-1248
Heinrich events in the Labrador Sea [1993, eng] 48-4188
Holocene ice stream advance, Hudson Strait [1993, eng] 48-2340
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea [1994, eng] 48-3327
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979 [1983, eng] 48-3344
Paleoecology of glacial deposits, Baffin I., NWT [1993, eng] 48-1219
Andriushchenko, V.I.
Particulars of weather and ice conditions in the Arctic in 1991 [1992, eng] 48-731
Andriushin, A.V.
Ice loads on propellers of ice breaking ships [1993, eng] 48-164
Androshchuk, V.V.
Structures to protect river banks against ice erosion [1992, eng] 48-5518
Andrzejczyk, Z.
Bacterial flora in soils of western Spitsbergen [1993, eng] 48-4999
Anfossi, D.
Air mass identification in relation to pollution episodes in Italian Alps [1991, eng] 48-4763
Angammana, K.S.
Modeling oil spills in a river-lake system [1994, eng] 48-3619
Angell, J.K.
Antarctic ozone hole-atmospheric circulation relation [1993, eng] 48-287
Anghelache, G.
General preheating system for cold starting of internal combustion engine [1994, eng] 48-3113
Anklin, M.
Continuous measurements of Greenland ice core chemistry [1993, eng] 48-1233
Anokhin, V.N.
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea [1992, rus] 48-2742
Ansmann, A.
Lidar observations of cirrus scattering properties [1993, eng] 48-928
Antila, J.
New information on the differences between studded and unstudded tyres [1994, eng] 48-3096
Antipin, I.N.
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks [1994, eng] 48-3991
Antipina, D.K.
Local introduction of fertilizer [1988, rus] 48-912
Antipov, A.N.
Geoecological characteristics of Siberian cities [1990, rus] 48-3725
Antonov, S.I.
Fluvial lithomorphogenesis in the Protva River valley [1993, rus] 48-3742
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones [1992, rus] 48-1398
Antonov-Druzhinin, V.P.
Ensuring and ecological safety of the gas pipelines operating in the permafrost zone [1993, eng] 48-5192
Optimal thermal regime of pipeline gas transportation in permafrost zone [1994, eng] 48-3989
Anttonen, H.
Safety in the use of four-wheeled all-terrain vehicles in Finland [1992, eng] 48-4966
Simulation of the effect of wind on clothing by measurements and calculations [1993, eng] 48-4902
Antvik, G.
Airport friction control in wintertime [1994, eng] 48-3967
Anzaki, Y.
Study on the evaluation methods for the strength of pavement materials [1993, eng] 48-5091
Aoi, T.
Study on acid snow [1987, jpn] 48-550
Aoki, K.
Characteristics of heat exchanger for melting of piled snow [1993, eng] 48-876
Aoki, S.
Forecasting system for snow and freezing [1986, jpn] 48-20
Variations of tropospheric ozone concentration at Syowa Station [1993, jpn] 48-2442
Aoki, T.
Multiple scattering model for the atmosphere-snow system [1993, eng] 48-2989
Multiple scattering model for the atmosphere-snow system [1993, eng] 48-2989
Aoki, Y.
Detection of a straight metal tube by snow search radar [1993, eng] 48-1713
Enhancement of radar imaging by snow permittivity [1993, eng] 48-3812
Aoshima, M.
Sea ice information from satellite images (part 2) [1993, jpn] 48-1070
Aota, M.
Long-term variations in ice concentration off Hokkaido [1993, jpn] 48-1053
Pack ice off Hokkaido, Jan.-Apr. 1992 [1992, jpn] 48-3157
Spectral extinction coefficient of sea ice [1993, jpn] 48-1078
Variability in the Okhotsk Sea ice [1993, eng] 48-1066
Aoyama, K.
Avalanches and meteorological conditions [1988, jpn] 48-586
Estimation of stresses on bridge railings by accumulated snow [1989, jpn] 48-672
Experimental study on roof snow melting system by bar-shaped carbon heater [1993, jpn] 48-1988
Road conditions in Finland [1989, jpn] 48-714
Apelblat, A.
Freezing-temperature depressions of aqueous potassium hydrogen carbonate [1994, eng] 48-3813
Apfl, G.
Integrated geographic analysis system for snow cover monitoring [1994, eng] 48-4930
Appel', I.L.
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period [1992, rus] 48-1912
Appleyard, R.J.
Solid-state NMR of glycine in frozen solution [1993, eng] 48-4250
Appolonov, E.M.
Designing ice-resistant structures according to the limit strength criterion [1992, rus] 48-749
Apps, M.J.
Boreal forests and tundra [1993, eng] 48-963
Araguás-Araguás, L.
Isotopic patterns in modern global precipitation [1993, eng] 48-1495
Araki, K.
Study on acid snow [1987, jpn] 48-550
Archegova, I.B.
Biological recultivation in the North (theory and practice) [1992, rus] 48-4147
Archer, D.R.
Remote sensing of Great Britain snow cover [1994, eng] 48-4708
Arcone, S.A.
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska [1993, eng] 48-2064
Arctic and Marine Oil Spill Program (AMOP) Technical Seminar, 16th, Calgary, Alberta, June 7-9, 1993
Proceedings [1993, eng] 48-3714
Arctic and subarctic construction foundations for structures
Arctic and subarctic construction foundations for structures [1983, eng] 48-762
Arctic and subarctic construction: utilities
Arctic and subarctic construction: utilities [1987, eng] 48-1141
Arctic drilling fleet to get manager
Arctic drilling fleet to get manager [1992, eng] 48-2663
Arctic Ocean Sciences Board
Greenland Sea Project [1987, eng] 48-1781
Arctic perspectives
Arctic perspectives [1992, eng] 48-1810
Arctic Research Consortium of the United States (ARCUS)
Arctic system science: a plan for integration [1993, eng] 48-1140
Are, F.E.
Forecasting of river bed deformations in the permafrost zone [1993, eng] 48-512
Geological-engineering conditions of Yamal peninsula along designing railroad [1993, eng] 48-432
Arenillas, M.
Glaciers of the Spanish Pyrenees [1993, ita] 48-4093
Arès, R.
Construction of electrical substations in discontinuous permafrost regions [1993, eng] 48-402
Arikainen, A.
Transit capacity of the Northern Sea Route [1992, eng] 48-728
Aristarain, A.J.
Firn-core study from the southern Patagonia ice cap, South America [1993, eng] 48-2388
Arita, M.
Proposal of proper choice of ice tolerant coating films [1993, jpn] 48-1042
Arkhipov, V.V.
Formation of suprapermafrost ground water on alassy [1988, rus] 48-914
Armando, E.
Reports on the Glaciological Survey of 1991 [1993, ita] 48-4117
Armour, B.
Fusion of ERS-1 SAR and SSM/I ice data [1994, eng] 48-3466
Armstrong, B.M.
Reinforcing and prestressing steels for cryogenic applications [1982, eng] 48-5396
Armstrong, J.J.
Highway de-icers: standards, practice and research in the Province of Ontario [1991, eng] 48-3068
Armstrong, R.L.
Approach to assessing changes in snow cover: an example for the former Soviet Union [1993, eng] 48-2924
Detection of fluctuations in global snow cover using passive microwave remote sensing [1993, eng] 48-1792
Radiometry of snow cover structure [1993, eng] 48-1318
Temperate glacier time response from field data [1993, eng] 48-2395
Armstrong, R.S.
HVAC design considerations for cold climate [1993, eng] 48-2213
Arnold, F.
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere [1994, eng] 48-5454
Measurement of negative ions in the arctic stratosphere [1994, eng] 48-5455
Spectrometry of nitric acid in the winter arctic stratosphere [1994, eng] 48-5453
Arnold, M.
North Atlantic sea surface salinity, ice melting and abrupt climatic changes [1993, eng] 48-4208
Arnold, M.J.
Thermal anti-ice protection for aircraft [1993, eng] 48-4427
Arnold, R.
Modeling the isotopic composition of precipitation [1994, eng] 48-4849
Arnold, R.W.
Placement of cryosols in soil taxonomy [1993, eng] 48-2273
Arnott, W.P.
Model predicting the ice particle size of cirrus clouds, pt.2 [1994, eng] 48-4690
Role of ice crystals in cirrus radiative properties [1994, eng] 48-4600
Arora, R.
Role of pit membrane structure in deep supercooling of xylem parenchyma [1993, eng] 48-1258
Arp, P.A.
Forest soil temperature prediction from air temperature records [1993, eng] 48-4810
Arpe, K.
Precipitation field forecasting over the antarctic region [1993, eng] 48-200
Arthern, R.J.
Measuring ice sheet changes with the ERS-1 altimeter [1994, eng] 48-3436
Arthur, M.A.
Controls on soil solution chemistry in a subalpine forest in north-central Colorado [1993, eng] 48-695
Artykpaev, E.T.
Heat engineering and soundproofing qualities of multi-storied enclosed houses [1979, rus] 48-1289
Arundale, W.H.
Science research needs on federally protected Alaskan lands [1990, eng] 48-1274

Asakawa, T.
Near real time satellite SAR image data transmission system [1993, eng] **48-1055**
Asano, K.
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles [1993, jpn] **48-1989**
Asano, M.
Influences of regulation of studded tire in Hokkaido [1993, eng] **48-1200**
Asanuma, I.
Observation of the heat flux between atmosphere and ocean with remote sensing (I) [1990, eng] **48-4682**
Asay, Z.L.
Manually operated snow plow or other utility device [1990, eng] **48-2185**
Aschwanden, H.
Importance of hydrological networks for estimating average flows in alpine regions [1990, eng] **48-1585**
Ash, R.
Methane flux from drained northern peatlands [1993, eng] **48-2547**
Ashcraft, J.
Heavy weight deflectometer results from an unsurfaced road containing rubber layers [1994, eng] **48-4914**
Ashley, G.M.
Alaskan valley fluvial response to Quaternary climatic changes [1993, eng] **48-929**
Ashrawi, S.S.
Anti-icing compositions for e.g. aircraft wing surfaces, with increased hold over time [1993, eng] **48-5519**
Ashton, B.
Alaska's groundwater quality protection strategy [1990, eng] **48-2993**
Review of the regulatory framework for groundwater quality protection in Alaska [1988, eng] **48-2893**
Ashworth, E.N.
Deep supercooling in woody plant tissues [1993, eng] **48-1257**
Ice formation damage of supercooling dogwood tissue [1993, eng] **48-2751**
Askne, J.
Comment on paper by St. Germain et al [1993, eng] **48-3006**
ERS-1 SAR analysis of arctic ice concentration during the melt season [1993, eng] **48-1686**
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91 [1994, eng] **48-3446**
Assel, R.A.
Computer animation of Great Lakes water temperature [1993, eng] **48-3937**
One-dimensional ice thermodynamic model for the Laurentian Great Lakes [1994, eng] **48-4450**
Assier, A.
French Alps cirque glacier evolution related to climatic changes [1993, fre] **48-4094**
Astarita, G.
Basal melting of antarctic ice shelves [1993, eng] **48-2410**
Asvall, R.P.
River ice investigations in Norwegian watercourses—a review [1994, eng] **48-5536**
Atkin, A.S.
Forest resources of Siberia [1994, eng] **48-2481**
Atkin, O.K.
Nitrogen uptake in arctic plants [1993, eng] **48-2374**
Atkins, T.W.
Freeze-thaw fabrication of macroporous hydrogel polymers [1993, eng] **48-5015**
Atochi, S.
Winter road repair in snowy and cold regions [1988, jpn] **48-571**
Atre, S.R.
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica [1993, eng] **48-3577**
Atwater, S.
Sea ice-edge enhancement using polar-orbiting environmental satellite data [1993, eng] **48-314**
Audette, G.
Norman Wells air terminal building [1994, eng] **48-3349**
Augustein, E.
Ice processes [1991, eng] **48-4867**
Augustinus, P.C.
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand [1992, eng] **48-2333**
Austiguy, G.E., Jr.
Application of a mixture theory to stress waves in snow [1993, eng] **48-2866**
Austin, J.
Influence of climate change on arctic ozone depletion [1994, eng] **48-4596**
Austin, M.A.
Trans-Alaska Pipeline Research Program. Progress report 77-B [1977, eng] **48-3428**
Avanzino, R.J.
Long-term frozen storage of stream water samples [1993, eng] **48-2055**
Avila, E.E.
Charge transfer during individual collisions in ice growing by riming [1991, eng] **48-3682**
Laboratory study of static charging by fracture in ice growing by riming [1994, eng] **48-4851**
Avondale to build new icebreaker for USCG
Avondale to build new icebreaker for USCG [1993, eng] **48-3562**
Awaya, Y.
LANDSAT detection of northern Finland vegetation change [1994, eng] **48-4997**
Satellite detection of the boreal forest-tundra transition [1993, eng] **48-1697**
Axelson, L.
Proposal for new winter road maintenance strategy—MINSALT project [1993, eng] **48-1189**
Weather forecasts and information on road conditions—MINSALT [1993, eng] **48-1202**
Ayorinde, O.A.
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4 [1994, eng] **48-3012**
Ayuta, K.
Frost damage to coastal concrete structures in Japan [1986, eng] **48-5313**
Study of thermal distribution in concrete located in cold sea environment [1990, jpn] **48-4667**
Aziz, A.
Perturbation techniques in phase change heat transfer [1993, eng] **48-1604**
Temperature variations in the active layer of permafrost [1993, eng] **48-352**
Azovskii, M.G.
Second instance of *Viola incisa* (Violaceae) in Central Siberia [1993, rus] **48-1635**
Azuma, D.L.
Correlation and prediction of snow water equivalent from snow sensors [1992, eng] **48-3704**
Azuma, N.
Plan of Dome-F Station for deep ice-coring by JARE [1994, eng] **48-5365**
Baarman, L.
Model for ice induced vibration of slender offshore structures [1993, eng] **48-148**
Modelling of ice induced vibration of slender offshore structures [1993, eng] **48-2129**
Babaev, IU.M.
First international expedition "World Scientists with Regard to Extreme North" [1992, eng] **48-727**
Babeux, P.
Rooting variations in subarctic reforestation tree species [1993, eng] **48-4811**
Babić, M.
Polygonal particle simulations of surface ice flows in river channels [1992, eng] **48-3788**
Surface ice transport through a river bend [1992, eng] **48-3789**
Bacchus, A.
Cost analysis of snow control structures in Ontario [1993, eng] **48-2965**
Bacchus, T.S.
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine [1994, eng] **48-3549**
Bacherer, N.E.
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines [1993, eng] **48-2244**
Bachmeier, A.S.
Atmospheric exchange affects Canadian wetlands [1994, eng] **48-4629**
Bachurin, G.V.
Questions on the melioration of taiga soils in the Transural [1989, rus] **48-907**
Baciu, F.
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991 [1993, eng] **48-4538**
Backer, D.S.
Recycling of aircraft deicing fluids [1994, eng] **48-5142**
Backlund, A.
Arctic cargo transportation economic evaluation [1993, eng] **48-101**
Backman, A.
5 years operational experience with the Swedish icebreaker *Oden* [1994, eng] **48-4306**
Bäckman, L.
Experiments with deep drainage [1993, swe] **48-2706**
Bäckström, M.
Ice flow behind an icebreaking vessel [1993, eng] **48-109**
Rudder/propulsion device arrangements on icegoing vessels [1993, eng] **48-102**
Badarch, M.
Snow depth mapping in Mongolia [1993, eng] **48-2967**
Badmaeva, S.E.
Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil [1992, rus] **48-4793**
Bae, S.K.
Ice structure size in frozen agar gels analyzed by mercury porosimetry [1993, eng] **48-3624**
Baenziger, M.A.
Dynamic loads on transmission line structures due to galloping conductors [1994, eng] **48-3809**
Bagirov, M.N.
Soil water content regulating procedure [1992, eng] **48-4068**
Bahadur, J.
Himalayas: a third polar region [1993, eng] **48-2784**
Bailey, J.O.
Monitoring snow area and depth with integration of remote sensing and GIS [1993, eng] **48-2613**
Remote sensing of Great Britain snow cover [1994, eng] **48-4708**
Bailey, R.C.
Implications of iceberg dynamics for iceberg stability estimation [1994, eng] **48-3252**
Bailey, R.N.
Promoting late-fall establishment of tall fescue with soil covers [1993, eng] **48-3490**
Bailey, W.G.
Evaluation of evaporation models for alpine tundra, British Columbia, Canada [1990, eng] **48-1571**
Evaporation from alpine tundra in the Canadian Cordillera [1990, eng] **48-1570**
Bain, R.L.
Wear element for a scraping operation [1993, eng] **48-1283**
Bais, A.F.
Solar radiation variability over Iceland [1994, eng] **48-5488**
Baĭtaz, O.N.
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea [1991, rus] **48-2527**
Baĭtaz, V.A.
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea [1991, rus] **48-2527**
Bakaltcheva, I.
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo* [1993, eng] **48-1255**
Baker, I.
Dislocation/grain boundary interactions in ice Ih under creep conditions [1994, eng] **48-5587**
In-situ synchrotron x-ray topographic studies of polycrystalline ice [1994, eng] **48-5579**
Baker, M.B.
Mechanism of charge transfer between colliding ice particles in thunderstorms [1994, eng] **48-4852**
Baker, T.H.W.
Field monitoring of frost-related sidewalk cracking [1994, eng] **48-3366**
Baklanov, A.
Data bases and map of units of radiational risks in Russian Arctic [1993, eng] **48-4552**
Baklanov, A.A.
Evaluation of environmental radiational consequences after hypothetical accident on Kola nuclear power plant [1993, eng] **48-4565**
Principles for the organization of a regional information system for ecological monitoring [1992, rus] **48-2121**
Bakwin, P.S.
Reactive nitrogen oxides and ozone above a taiga woodland [1994, eng] **48-4637**
Baldauf, J.G.
Glacial history of Antarctica: results from Leg 119 [1991, eng] **48-3632**
Ice management in high latitude scientific ocean drilling [1994, eng] **48-3987**
Baldwin, D.G.
Systematized approach to AVHRR image navigation [1993, eng] **48-1357**
Bales, R.C.
Atmosphere-snow transfer function for hydrogen peroxide [1993, eng] **48-2675**
SO2 uptake on ice spheres: liquid nature of the ice-air interface [1993, eng] **48-954**
Balks, M.R.
Visual assessment of environmental effect of fieldwork on ice free areas [1993, eng] **48-899**
Ballantyne, C.K.
Periglacial of Great Britain [1994, eng] **48-5022**
Ballivy, G.
High performance air entrained concrete for bridge in Quebec [1993, eng] **48-2657**
Balobaev, V.T.
Rational use of nature in the cryolithozone; collected scientific papers [1992, rus] **48-4772**
Baltensperger, U.
Atmospheric constituents in high alpine ice cores [1994, eng] **48-2717**
Transfer of atmospheric constituents into an alpine snow field [1993, eng] **48-1234**
Bamber, J.L.
Analysis of infrared imagery over the Ronne Ice Shelf [1992, eng] **48-247**
Antarctic topography derived from ERS-1 altimetry [1994, eng] **48-3434**
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf [1992, eng] **48-250**
Ice sheet altimeter processing scheme [1994, eng] **48-4037**
Band, L.E.
Alpine treeline growth variability [1993, eng] **48-936**

AUTHOR INDEX

Banerjee, S.K.
Contribution of fine-particle magnetism to reading the global paleoclimate record [1994, eng] **48-4568**
Banfield, L.A.
Late Cenozoic glacial history of Bransfield Basin [1994, eng] **48-4246**
Bang, B.
Computer simulation of wind and snow around buildings [1994, eng] **48-3881**
Banthia, N.
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures [1992, eng] **48-2080**
Bar-Ziv, R.
Surface melting of ice induced by hydrocarbon films [1993, eng] **48-5020**
Baragiola, R.A.
Sublimation of water ice below 170 K [1993, eng] **48-2147**
Barashkov, P.P.
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels [1990, rus] **48-56**
Barbaras, G.A.A.
Gravity base structure for an offshore platform in arctic regions [1990, eng] **48-2175**
Barber, D.G.
Shortwave albedo of snow cover over sea ice [1993, eng] **48-1802**
Barber, M.
Theoretical and experimental results of using binders for snow roads and runways in Antarctica [1993, eng] **48-1171**
Bardasov, S.A.
Estimates of the viscosity of nonfreezing layers of water [1994, eng] **48-3834**
Nonfreezing water layer thickness relation to ice pressure [1994, eng] **48-3833**
On the non-freezing water interlayers between ice and a silica surface [1993, eng] **48-2429**
Bardon, M.F.
Effects of gas leakage and crevices on cold starting of engines [1994, eng] **48-3086**
Barkan, E.S.
General technique for the calculation of formation conditions of natural gas hydrates [1993, eng] **48-346**
Barker, E.D., Jr.
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present [1994, eng] **48-5059**
Barker, H.W.
Atmospheric radiative characteristics in a Canadian climatic model [1994, eng] **48-5133**
Barker, J.
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm [1993, eng] **48-2927**
Barkov, N.I.
Air content of ice deposits near Vostok Station [1993, rus] **48-3567**
Barlow, M.J.
Methanol ice in the protostar GL 2136 [1992, eng] **48-3617**
Barnes, M.
Metro Division snow and ice research field studies 1992-1993 winter season [1993, eng] **48-4905**
Barnes, P.
Plastic flow, pressure melting and other mechanisms in the deformation of ice I [1968, eng] **48-4001**
Barnes, P.W.
Influence of ice on southern Lake Michigan coastal erosion [1994, eng] **48-4161**
Barnett, T.P.
Effect of Eurasian snow cover on regional and global climate variations [1989, eng] **48-1676**
Barnola, J.M.
Debris entrainment at an antarctic glacier bed [1993, eng] **48-2393**
Firn chemistry at Vostok Station [1994, eng] **48-4218**
Baroni, C.
Dendrochronology and glacier variations in the Italian Alps [1993, ita] **48-4025**
Evaluation of the dynamic parameters of Strandline Glacier [1992, ita] **48-3287**
Barrera, E.
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean [1993, eng] **48-3290**
Barrett, E.C.
Monitoring snow area and depth with integration of remote sensing and GIS [1993, eng] **48-2613**
Remote sensing of Great Britain snow cover [1994, eng] **48-4708**
Barrett, P.J.
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report [1992, eng] **48-2319**
Cenozoic sedimentary and climatic record, Ross Sea region [1993, eng] **48-3292**
Barrie, L.A.
Atmospheric toxaphene in the high Arctic [1993, eng] **48-2461**
Biogenic sulfur aerosol in the Arctic troposphere: 1. Contributions to total sulfate [1993, eng] **48-3642**
Biogenic sulfur aerosol in the Arctic troposphere: 2. Trends and seasonal variations [1993, eng] **48-3643**
Features of polar regions relevant to tropospheric ozone chemistry [1993, eng] **48-3046**
Seasonal variations of surface layer wetland hydrocarbons [1994, eng] **48-4614**
Stable lead isotope ratios in Alaskan arctic aerosols [1993, eng] **48-3898**
Barron, J.A.
Glacial history of Antarctica: results from Leg 119 [1991, eng] **48-3632**
Barry, R.G.
Approach to assessing changes in snow cover: an example for the former Soviet Union [1993, eng] **48-2924**
Arctic sea ice-climate system: observations and modeling [1993, eng] **48-2507**
Monitoring lake freeze-up/break-up as a climate index [1993, eng] **48-1794**
Overview of the functions of WDC-A [1978, eng] **48-2979**
Snow watch '92 [1993, eng] **48-1787**
Towards a permafrost information and data system [1993, eng] **48-353**
Barsch, D.
Discontinuous permafrost distribution in Nepalese mountains [1993, eng] **48-354**
Periglacial geomorphology in the 21st century [1993, eng] **48-4941**
Bart, P.
Glacial and tectonic development of the Antarctic Peninsula [1993, eng] **48-4244**
Bartarya, S.K.
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica [1993, eng] **48-4535**
Bartels, D.M.
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures [1992, eng] **48-5032**
Barthel, J.R.
Snow equation-of-state [1990, eng] **48-3614**
Bartlein, P.J.
Late Quaternary history of tundra vegetation in northwestern Alaska [1994, eng] **48-5065**
Barton, C.
Flexural waves on arctic data: application of new techniques for S/N enhancement [1984, eng] **48-3921**
Barton, I.J.
Satellite infrared analysis of cloud optical depth [1993, eng] **48-2762**
Barton, P.B.
Calculation of the vapor-saturated liquidus for the NaCl-CO2- H2O system [1993, eng] **48-1769**
Bartoszewski, S.A.
Permafrost hydrology surrounding a Spitsbergen fiord [1993, eng] **48-355**
Basheer, R.A.
Heated wiper blade using conductive elastomer [1993, eng] **48-1652**
Basinger, J.F.
Stratigraphy of an Eocene swamp in Axel Heiberg I. [1993, eng] **48-3132**
Baskerville, C.A.
Landslide hazards in Vermont [1993, eng] **48-3283**
Batcheller, B.D.
Hybrid electronic control system and method for cold weather garment [1991, eng] **48-2250**
Bates, G.T.
Toward the simulation of the effects of the Great Lakes on regional climate [1993, eng] **48-1835**
Bates, R.E.
Mesoscale atmosphere icing event, March 1991 [1993, eng] **48-2964**
Observations on machine-made snow as a millimeter-wave obscurant [1993, eng] **48-3031**
Bathmann, U.
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93 [1994, eng] **48-3926**
Batten, A.R.
Dry coastal ecosystems of Alaska [1993, eng] **48-1124**
Batterson, M.J.
Topographic controls on glacial lake development [1993, eng] **48-5012**
Bauer, G.E.
Strengthening of marginal soils by confined stone columns [1994, eng] **48-3355**
Bauer, H.
Effects of freezing stress on plant photosynthesis [1992, eng] **48-3606**
Bauer, P.
Measuring precipitation over the ocean [1993, eng] **48-3645**
Bauer, R.
Monitoring N_2O variations in the Scandinavian polar vortex [1994, eng] **48-5443**
Bauert, M.R.
Vivipary in *Polygonum viviparum*: an adaptation to cold climate? [1993, eng] **48-5057**
Baulin, V.V.
Engineering and geocryological problems of the development in the North of Yamal [1994, eng] **48-3404**
Permafrost along the Yamal Peninsula gas pipeline [1993, eng] **48-5193**
Baum, B.
Ice-pavement bond prevention: surface modification [1992, eng] **48-4897**
Baum, S.K.
Effect of decreased solar luminosity on Late Precambrian ice extent [1993, eng] **48-952**
Baumann, J.R.
Removable snowthrower chute [1992, eng] **48-2239**
Baumann, K.H.
Pleistocene evolution of Scandinavian ice sheets [1994, eng] **48-3750**
Baumgartner, M.F.
Integrated geographic analysis system for snow cover monitoring [1994, eng] **48-4930**
Bauske, B.
Effects of deicing-salts on heavy metal mobility [1993, eng] **48-3235**
Baxter, A.J.
Sellafield as a source of radioactivity to the Barents Sea [1993, eng] **48-4531**
Transfer of reprocessing wastes from NW Europe to the Arctic [1993, eng] **48-4521**
Baxter, M.S.
IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. [1993, eng] **48-4519**
Bay, C.
Phytogeography of vascular plants of northern Greenland [1992, eng] **48-66**
Bay-Nielsen, H.
Accident classification in the Arctic [1992, eng] **48-4963**
Bayer, J., Jr.
Measurement of thermal stresses in asphalt concrete mixtures [1993, eng] **48-403**
Thermal stress measurements in asphalt concrete [1993, eng] **48-720**
Bayless, J.D., Jr.
Method of making an integral heater for composite structure [1990, eng] **48-2267**
Bayless, R.E.
Snow melting heater mats [1990, eng] **48-2263**
Bayly, I.
Post-yield buckling of stiffened panel structures [1994, eng] **48-4299**
Bayr, K.J.
Observations on glaciers in the eastern Austrian Alps using satellite data [1994, eng] **48-4929**
Pasterze Glacier, Austria [1994, eng] **48-4928**
Bažant, Z.P.
Penetration fracture of ice plate: 2D analysis and size effect [1994, eng] **48-4815**
Penetration fracture of sea ice plate: simplified analysis and size effect [1994, eng] **48-4816**
Bea, R.G.
Statistical analysis of offshore structure loading probabilities [1993, eng] **48-2685**
Beaglehole, D.
Thickness and anisotropy of the ice-water interface [1993, eng] **48-1671**
Ultraviolet radiation and bottom-ice algae in McMurdo Sound [1994, eng] **48-4389**
Beauchamp, E.G.
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing [1994, eng] **48-4160**
Beauchemin, P.
Full 2D calculation of ice generation, transport and buildup in natural rivers [1994, eng] **48-5539**
Beaven, S.G.
Radar backscatter measurements from arctic sea ice during the fall freeze-up [1993, eng] **48-1700**
Radar backscatter measurements from simulated sea ice during CRRELEX '90 [1993, eng] **48-2645**
Radar backscatter signatures of thin sea ice in the central Arctic [1994, eng] **48-4648**
Young sea ice signatures in the deep arctic during the fall freeze-up [1993, eng] **48-1687**
Bebar, M.R.
Feasibility study for an ice-capable oceanographic ship [1993, eng] **48-4253**
Bech, C.
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils [1993, eng] **48-3720**
Evaporation of crude oil and diesel from beach sediment [1993, eng] **48-3715**
Natural self cleaning of oil spills from arctic shorelines [1993, eng] **48-3721**
Becht, M.
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife) [1991, ger] **48-3659**
Becker, G.A.
Hydrographic research in a Greenland fjord, 1959 [1990, ger] **48-799**
Becker, K.H.
Proceedings [1993, eng] **48-3045**
Beckman, W.A.
Investigation of water as a refrigerant [1993, eng] **48-2612**
Bedard, A.J., Jr.
Remote sensing of aircraft icing conditions [1994, eng] **48-3010**
Bédard, P.
Bedrock weathering on Canadian plateaus [1993, eng]

48-3130
Bedford, N.R.
Development of an arctic ray model [1994, eng] 48-4064
Been, K.
Verification of offshore structure foundation standards [1993, eng] 48-1016
Beer, H.
Liquid solidification in forced flows in parallel plate channels [1993, eng] 48-861
Morphology of ice layers in curved rectangular channels [1993, eng] 48-863
Beer, J.
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity [1990, eng] 48-1816
Beerling, D.J.
Temperature effects on distribution of introduced plants [1993, eng] 48-1269
Bégin, Y.
Plant development on a subarctic coast [1993, eng] 48-1383
Behling, P.J.
Simulated climatic changes: results of the COHMAP climate-model experiments [1993, eng] 48-2977
Behrendt, J.C.
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet [1992, eng] 48-2619
Behunek, J.L.
Helicopter icing module for TWI [1985, eng] 48-1277
Bejan, A.
When to defrost a refrigerator [1994, eng] 48-3815
Beketskii, S.P.
Strength parameters of hummocks: field observations and laboratory tests [1993, eng] 48-1033
Bekisheva, Ch.B.
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period [1992, rus] 48-3724
Bekker, A.T.
Dynamic model of ice-structure interaction [1993, eng] 48-1054
Experimental study of ice-cylindrical pile interaction [1993, eng] 48-4317
Initial conditions of ice-structure interaction problem [1994, eng] 48-3026
Bekki, S.
Importance of the reactions between OH and ClO for stratospheric ozone [1993, eng] 48-2575
Belaskas, D.P.
Oil spreading in surface waters with an ice cover [1993, eng] 48-317
Bel'chikov, V.A.
Automated short term forecasts of discharges and water levels for the Northern Dvina river system [1992, rus] 48-1946
Beliashov, V.A.
Hydrodynamic problems of propellers for icebreaking ships [1993, eng] 48-120
Method for calculating ice loads encountered by propeller blades [1993, eng] 48-121
Propeller thrust and torque in ice milling mode of icebreakers [1993, eng] 48-122
Simulation of ice cutting by propeller blades, part 1 [1993, eng] 48-87
Beliazo, V.A.
Fluctuations of the atmospheric circulation and climate changeability of polar regions [1994, eng] 48-3849
Belknap, D.F.
Sea level change and Quaternary sediments off Maine [1992, eng] 48-1925
Bell, D.
Ice dynamics at Ice Station Weddell 1: I. Part 1. [1992, eng] 48-3778
Ice-core studies in the western Weddell Sea [1992, eng] 48-3771
Bell, R.
Delving into the west antarctic ice sheet [1993, eng] 48-771
Bell, W.
Stratospheric trace gas measurements in Sweden [1994, eng] 48-5476
Bellanger, M.
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles [1994, eng] 48-3223
Limestone pore structure and frost resistance [1993, eng] 48-3193
Bellissent-Funel, M.C.
Slow dynamics of water molecules in confined space [1993, eng] 48-2591
Belloni, S.
Permafrost distribution in the Italian mountains [1993, eng] 48-356
Sixty years of research on Italian glacier fluctuations [1993, ita] 48-4096
Belov, P.N.
Assessment of air pollution from the Noril'sk Mining and Metallurgy Plant [1993, rus] 48-5288
Beltaos, S.
Ice and sedimentation processes in the Saint John River, Canada [1994, eng] 48-5537
Belter, D.L.
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration [1994, eng] 48-3108
Bender, M.
Geomagnetic chronology for antarctic ice accumulation [1994, eng] 48-4692
Bender, M.L.
Firn chemistry at Vostok Station [1994, eng] 48-4218
Benedict, B.
Measurements during rain on snow [1994, eng] 48-3273
Benedict, R.
Infiltration of water into snow [1994, eng] 48-4451
Benediktsson, Á.
Operation of hydro power plants under diverse ice conditions [1994, eng] 48-5549
Benn, D.I.
Moraine formation below a Norwegian temperate valley glacier [1994, eng] 48-4976
Scottish glaciomarine deposition and tectonics [1993, eng] 48-50 1
Bennacer, R.
Flow structure and heat transfer by natural convection near the density maximum [1993, fre] 48-601
Bennat, H.
Extraction of antarctic topographic glaciological features from ERS-1 SAR data [1994, eng] 48-3438
Benndorf, C.
Influence of steps on the H2O adsorption on Ni(s) (111) [1993, eng] 48-74
Benner, D.A.
United States Interagency Arctic Buoy Program [1993, eng] 48-2125
Bennett, F.L.
New course in management of cold regions construction [1993, eng] 48-4935
Roadway management in cold regions: a summary of Scandinavian practice [1994, eng] 48-3368
Bennett, M.R.
Non-periglacial stone stripes? An example from North Wales [1993, eng] 48-300
Scottish Highlands deglaciation correlated to landforms [1993, eng] 48-3797
Bennike, O.
Quaternary marine stratigraphy and geochronology in central West Greenland [1994, eng] 48-4991
Benoist, J.P.
Large scale study of the microwave signature of the antarctic ice sheet [1991, eng] 48-3710
Benoit, P.H.
Meteorite thermoluminescence and ice movement in the Elephant Moraine region [1992, eng] 48-2616
Benson, C.H.
Changes in hydraulic conductivity caused by freeze-thaw [1992, eng] 48-1110
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin [1992, eng] 48-1111
Benson, C.S.
Analysis of visible and microwave satellite data for snow mapping in Alaska [1993, eng] 48-2937
Overview of research on snow in Alaska [1993, eng] 48-1801
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987 [1987, eng] 48-325
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988 [1988, eng] 48-324
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988 [1989, eng] 48-323
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989 [1990, eng] 48-322
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986 [1986, eng] 48-326
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991 [1991, eng] 48-321
Structure and wind transport of seasonal snow on the arctic slope of Alaska [1993, eng] 48-2864
Bentley, C.R.
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica [1993, eng] 48-2576
Antarctic topography derived from ERS-1 altimetry [1994, eng] 48-3434
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica [1993, eng] 48-3577
Micro-earthquakes beneath West Antarctica ice streams [1993, eng] 48-3571
Radar experiments on ice stream B [1992, eng] 48-2620
Radar study of antarctic ice stream stagnation [1993, eng] 48-3581
Beresford-Smith, G.
Flexural waves on arctic data: application of new techniques for S/N enhancement [1984, eng] 48-3921
Berg, N.H.
Rain-dominated winter storms in California's Sierra Nevada [1993, eng] 48-2929
Berg, R.
Horizontally ribbed dome for habitation enclosure [1992, eng] 48-1731
Berg, R.L.
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis [1994, eng] 48-3369
Improving winter pavement performance [1993, eng] 48-2328
Large aircraft winter operations at small airports: a progress report [1993, eng] 48-2696
Spatial variability of falling weight deflectometer data: a geostatistical analysis [1994, eng] 48-4909
Berg, T.
Horizontally ribbed dome for habitation enclosure [1992, eng] 48-1731
Berg, T.C.
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout [1993, eng] 48-4557
Berger, A.
Katabatic wind simulation in Terra Nova Bay area [1993, eng] 48-2139
Simulation of the climate of the last 200 kyr with the LLN 2D-model [1993, eng] 48-4196
Testing the astronomical theory with a coupled climate—ice-sheet model [1990, eng] 48-13
Berger, G.W.
Thermoluminescence dating of Quaternary sediments [1993, eng] 48-3129
Bergeron, C.J., Jr.
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude [1993, eng] 48-1004
Bergeson, K.L.
Frost susceptibility of concrete in near-saturated states [1994, eng] 48-5289
Berglund, B.L.
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska [1994, eng] 48-3844
Two similar insulated residences at 61 and 41N latitude [1994, eng] 48-3868
Berglund, H.N.
Thermostats in an insulated residence with passive solar heating [1994, eng] 48-3879
Two similar insulated residences at 61 and 41N latitude [1994, eng] 48-3868
Berglund, L.G.
Cold climate effects on composite materials—preliminary results [1994, eng] 48-3979
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska [1994, eng] 48-3844
Thermostats in an insulated residence with passive solar heating [1994, eng] 48-3879
Two similar insulated residences at 61 and 41N latitude [1994, eng] 48-3868
Bergsten, H.
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau [1994, eng] 48-5636
Bergström, S.
Integration of field data into operational snowmelt-runoff models [1994, eng] 48-4712
Berko, H.N.
Ozone destruction and bromine photochemistry at ground level in the arctic spring [1990, eng] 48-3296
Berkowitz, B.
Prediction of ice shapes and their effect on airfoil drag [1994, eng] 48-4062
Berkowitz, B.M.
Ice shape and performance for a multi-element airfoil [1991, eng] 48-4859
Berlamont, J.
Numerical simulations of wind-driven flows in the antarctic coastal zones [1993, eng] 48-2138
Berliner, E.
Experimental method for vehicle mobility research on freezing/thawing soil [1993, eng] 48-1163
Berman, D.I.
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia [1993, eng] 48-2301
Bermejo, F.J.
Neutron scattering from polycrystalline ice [1993, eng] 48-1373
Vibration fluctuations in polycrystalline ice [1993, eng] 48-2027
Bernardi, R.L.
Transparent article having high visible transmittance [1988, eng] 48-4271
Bernardin, S.
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids [1994, eng] 48-3367
Berner, A.
Cloudwater droplet chemistry of Mt. Sonnblick, Austria [1994, eng] 48-4805
Berner, H.
Clay-mineral flux in the Fram Strait and Norwegian Sea [1994, eng] 48-3317
Surface sediment distribution in the Fram Strait [1993, eng] 48-4089
Bernhardsson, S.
Influences of adjustable tire pressure (CTIS) and anti skid devices when driving in snow [1993, eng] 48-1172
Bernier, M.
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec [1994, fre]

48-4484

Berntsson, L.
Compound to increase the frost-resistance of hardened concrete [1991, eng] 48-2252

Berretti, M.R.
Basic considerations for the structural designer of buildings located in cold regions [1994, eng] 48-3348

Berry, M.E.
Geomorphologic analysis of Pleistocene glacial sequences [1994, eng] 48-5064

Bertoia, C.
Synthetic aperture radar imagery for operational ice analysis [1991, eng] 48-4737

Bertran, P.
New data on the presence of permafrost in Aquitaine during the last glaciations [1993, fre] 48-5047
Stone bank stratification in an alpine environment [1993, fre] 48-1149

Bertraud, J.M.
HF atmospheric noise levels in the Canadian Arctic [1994, eng] 48-5386

Besant, R.W.
Thermal and moisture response of fibrous insulation [1994, eng] 48-3873

Besson, J.M.
Variation of interatomic distances in ice VIII to 10 GPa [1994, eng] 48-5021

Bettany, J.R.
Influence of freeze thaw cycles on soil carbon cycle [1993, eng] 48-1918

Bettermann, G.
Acetate de-icing agent for road surfaces [1993, eng] 48-1939

Bettignies, C.
Temperature differences in the Restigouche estuary during the ice-covered season [1994, eng] 48-3360

Bettoli, M.G.
Activity of Be-7 and Pb-210 in snow samples at Terra Nova Bay-Antarctica: preliminary results [1993, eng] 48-4541

Bevan, D.
Rotorcraft aviation icing research requirements: research review and recommendations [1981, eng] 48-1145

Beyens, L.
Freshwater tardigrades from Devon I., Canada [1992, eng] 48-3608

Beyerle, G.
Stratospheric aerosol content above Spitsbergen during winter 1991/92 [1994, eng] 48-5463
Stratospheric volcanic aerosols and PSCs over Spitsbergen [1994, eng] 48-3925

Bezborodov, V.A.
Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual [1991, rus] 48-1266

Bezinge, A.
Glaciology and hydroelectric production in Switzerland [1993, fre] 48-4097

Bi, X.J.
Ice observation on a platform in Bohai Sea [1994, eng] 48-5557

Bian, L.G.
1990 antarctic surface energy balance components, Zhongshan Station [1993, eng] 48-1514

Bianchi, F.
Biology of the Weddell/Scotia Confluence and of the ice edge [1992, ita] 48-4212

Bibby, I.P.
Ice load measurements for accreted ice on power lines [1993, eng] 48-2022
Ice load measurements on overhead line conductors [1993, eng] 48-827

Bičik, M.
Application of the ETH snow model to three basins of different character in central Europe [1994, eng] 48-4713

Bidigare, R.R.
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition [1992, eng] 48-5095
Photoprotective function for secondary carotenoids of snow algae [1993, eng] 48-725

Bidwell, C.S.
Ice accretion prediction for a typical commercial transport aircraft [1993, eng] 48-4888

Biggar, K.
Liquid waste management CFS Alert [1994, eng] 48-3380

Biggar, K.W.
Compilation of geotechnical information from the short range radar sites into a public domain database [1994, eng] 48-3389
Grouted pile displacement in saline frozen soils [1994, eng] 48-4839
Time dependent displacement of piles in saline permafrost [1993, eng] 48-357

Biianov, G.F.
Ecological aspects of the development of the hydroenergy potential of the cryolithozone [1992, rus] 48-4780

Bilello, M.A.
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska [1993, eng] 48-882

Bilgram, J.H.
Ice surface melting revealed by X-ray scattering [1994, eng] 48-4807

Billfalk, L.
Ice effects and control for hydro power production [1992, eng] 48-1533

Billings, W.D.
Possible effects of climatic warming on arctic tundra ecosystems [1992, eng] 48-1262

Bilodeau, A.
Concrete durability incorporating domestic fly ash [1994, eng] 48-3783

Bimanov, K.B.
Multiyear variation of annual and seasonal totals of precipitation and their relation to air temperature [1992, rus] 48-4460

Bindschadler, R.A.
Complex ice stream flow revealed by sequential satellite imagery [1993, eng] 48-2319
Greenland ice sheet change detection by SAR [1993, eng] 48-1345
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery [1993, eng] 48-1670
Ice thickness and surface features of ice streams D and E [1992, eng] 48-2622
Mass balance measurements on Ice Stream B, Antarctica [1993, eng] 48-3573
New views for antarctic glaciology [1993, eng] 48-772
Radar studies at the mouths of ice streams D and E, Antarctica [1993, eng] 48-1333
Report on polar regions AVHRR workshop [1993, eng] 48-1293
Review of Siple Coast Project ice sheet research [1993, eng] 48-3580

Bintanja, R.
Ecology Glacier glaciology and meteorology, King George I., 1990-1991 [1992, eng] 48-740

Birchfield, G.E.
Ocean-atmosphere-ice sheet model of long-term climatic change [1993, eng] 48-4192

Bird, K.J.
Alaskan rock thermal maturity patterns and hydrocarbon potential [1993, eng] 48-3257
Map of permafrost depth, North Slope, AK [1989, eng] 48-2505
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska [1993, eng] 48-366

Birr, S.T.
Assessment of white phosphorus storage in wetlands within artillery impact areas [1993, eng] 48-3033

Birkeland, D.
ERS-1 SAR analysis of arctic ice concentration during the melt season [1993, eng] 48-1686

Birks, H.H.
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway [1993, eng] 48-3798

Bischof, J.F.
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris [1994, eng] 48-3804

Bitiurin, A.K.
Software for permafrost seepage calculations beneath earth dams [1994, eng] 48-4806

Bitsula, A.
Propeller thrust and torque in ice milling mode of icebreakers [1993, eng] 48-122

Bivins, L.E.
Applications of Geographic Information Systems to the analysis of arctic contaminants [1993, eng] 48-4558

Bjarnason, G.G.
Total ozone variations at Reykjavík since 1957 [1993, eng] 48-2476

Bjedov, G.
Surface ice transport through a river bend [1992, eng] 48-3789

Bjerke, P.L.
Application of the ice model RICE in a rapid river [1994, eng] 48-5541

Bjerkelund, I.
Oil in pack ice: preliminary results of three experimental spills [1986, eng] 48-4174

Bjerregaard, J.D.
Winter highway maintenance data, Vol.2 [1993, eng] 48-1847

Bjerrum, J.
Alternative de-icing agents for bridges and airports [1991, dan] 48-4133

Bjørbaek, G.
Unusual ice formations [1994, eng] 48-4769

Björnsson, H.
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991 [1991, eng] 48-5292
Thermal output of a subglacial Icelandic caldera [1993, eng] 48-1363

Bjørnstig, U.
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions [1992, eng] 48-4964

Black, C.H.
Tanana River floodplain soil chemistry [1993, eng] 48-640

Black, D.
In-situ synchrotron x-ray topographic studies of polycrystalline ice [1994, eng] 48-5579

Black, S.
Initiation decision report—arctic nearshore cable installations [1993, eng] 48-1845

Blackburn, T.H.
Arctic sediments (Svalbard): consumption and microdistribution of oxygen [1994, eng] 48-5026

Blackie, J.R.
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland [1990, eng] 48-1569

Blackmon, M.L.
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989 [1993, eng] 48-1023

Blackmore, R.Z.
Heuristic freezing spray model of vesse icing [1993, eng] 48-4338
Heuristic freezing spray model of vessel icing [1994, eng] 48-4937

Blagoveshchenskiĭ, V.P.
Dependence of coefficients of resistance to movement on avalanche parameters [1992, rus] 48-4455

Blaha, B.J.
Pneumatic boot for helicopter rotor deicing [1980, eng] 48-1146

Blair, D.S.
Method and apparatus for acoustic plate mode liquid-solid phase transition detection [1990, eng] 48-4756

Blaisdell, G.L.
Braking traction on sanded ice [1992, eng] 48-2220
Delivery of fuel and construction materials to South Pole Station [1993, eng] 48-1001
Gas gun experiments to determine shock wave behavior in snow: methods and data [1993, eng] 48-1005
Proceedings of the 1st International Conference on Winter Vehicle Mobility [1993, eng] 48-1160

Blake, D.F.
Structural transitions in amorphous water ice and astrophysical implications [1994, eng] 48-5108

Blake, D.R.
Biomass burning effects on wetland hydrocarbon concentrations [1994, eng] 48-4623

Blake, E.W.
Subglacial measurement of turbidity and electrical conductivity [1993, eng] 48-2404

Blanchet, D.
Splitting of ice floes [1993, eng] 48-88

Blanchet, J.P.
Atmospheric radiative characteristics in a Canadian climatic model [1994, eng] 48-5133
Response of polar stratospheric clouds to increasing carbon dioxide [1989, eng] 48-1476

Blankenship, D.D.
Delving into the west antarctic ice sheet [1993, eng] 48-771

Blatter, H.
How does the Greenland ice sheet geometry remember the ice age [1994, eng] 48-3521
On the initiation of ice sheets [1993, eng] 48-2853

Blavier, J.F.
Airborne spectroscopy of arctic winter stratosphere [1992, eng] 48-2637

Blažková, S.
Application of the ETH snow model to three basins of different character in central Europe [1994, eng] 48-4713

Blekhman, D.A.
Dilatometer for determination of the compression modulus of soils under field conditions [1990, eng] 48-1388

Blindow, N.
Bottom melting on FRIS: results from difierent methods [1992, eng] 48-237
Determination of ice-shelf bottom melting by time-domain reflectometry [1993, eng] 48-2398
New results of structural investigations in the central part of the FRIS [1992, eng] 48-236

Bliss, D.I.
Patterns of plant distribution within two polar desert landscapes [1994, eng] 48-3507

Bliss, L.C.
Arctic coastal ecosystems [1993, eng] 48-1123
Patterns of plant distribution within two polar desert landscapes [1994, eng] 48-3507
Relation of nitrogen-fixing bacteria to arctic graminoid roots [1994, eng] 48-4378

Blom, C.E.
Airborne infrared sounding of the arctic stratosphere [1994, eng] 48-5477

Blöschl, G.
Entering the era of distributed snow models [1994, eng] 48-4706
Lysimetric snow pillow station at Kühtai/Tyrol [1990, eng] 48-1580

Blume, H.P.
Soils of Casey Station (Wilkes Land, Antarctica) [1993, eng] 48-2281

Blumer, F.P.
Investigations of the precipitation conditions in the central part of the Tianshan mountains [1990, eng] **48-1586**
Blunier, T.
Atmospheric methane record from a Greenland ice core over the last 1000 years [1993, eng] **48-2212**
Blyth, A.M.
Influence of glaciation on an effective-radius parametrization [1993, eng] **48-2056**
Blyth, K.
Microwave remote sensing for hydrological parameterization [1993, eng] **48-2377**
Blytt, L.D.
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992 [1993, eng] **48-4551**
Bo, Z.C.
Structure-ice interaction for a Bohai Bay oil production project [1993, eng] **48-4319**
Boatman, J.F.
Topographic influences on Colorado snowstorms [1984, eng] **48-3073**
Bobin, N.E.
Microbiological sampling from deep levels of ice in Antarctica [1994, eng] **48-5344**
Boccippio, D.
Ice particle growth and cloud electrical structure [1994, eng] **48-4855**
Bock, J.H.
Seedling density and mortality patterns among elevations in *Sedum lanceolatum* [1983, eng] **48-3345**
Bockheim, J.G.
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region [1993, eng] **48-2288**
Global change and soil formation in the Antarctic region [1993, eng] **48-2286**
Bodhaine, B.A.
Long-term decrease in arctic haze at Barrow, Alaska [1993, eng] **48-949**
Boer, J.N.
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics [1991, eng] **48-3692**
Bogdanov, A.A.
Technical-economic basis for improving the ice navigability of transport ships and icebreakers [1989, rus] **48-310**
Bøggild, C.E.
Modeling Greenland ice sheet sensitivity to climatic changes [1994, eng] **48-3518**
Boghammar, A.
Future glaciation and ground water flow at a nuclear waste site [1991, eng] **48-4762**
Bogorodskii, P.V.
Probable deep winter convection in Fram Strait [1992, eng] **48-1767**
Bogoslovskii, V.N.
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning) [1982, rus] **48-1287**
Böhm, R.
Glacier mass balance measurements on Wurtenkees in the Sonnblick region [1986, ger] **48-613**
Böhm, S.
Climatic changes in the Austrian Alps during the period 1775-1989 [1993, eng] **48-4113**
Bohren, C.
Melting with salt and heating with ice [1994, eng] **48-3239**
Bohren, C.F.
Radar backscattering from ice crystals [1993, eng] **48-2595**
Bojesen, M.B.
Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2 [1994, eng] **48-3958**
Bojkov, R.D.
Record low total ozone during northern winters of 1992 and 1993 [1993, eng] **48-301**
Bolliger, R.
Cross-tye clamp to join snow net cables [1993, eng] **48-1284**
Bolognesi, R.
NX-LOG: introduction to an avalanche model [1993, fre] **48-1210**
Bolsenga, S.J.
Snow depth mapping in Mongolia [1993, eng] **48-2967**
Snowfall climatology for the Laurentian Great Lakes [1993, eng] **48-1602**
Bölter, M.
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region [1993, eng] **48-2288**
Soils of Casey Station (Wilkes Land, Antarctica) [1993, eng] **48-2281**
Bombosch, A.
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps [1993, eng] **48-4152**
Bonan, G.B.
Forest-tundra transition zone in northeastern Canada [1994, eng] **48-5125**
Bonch-Bruevich, V.A.
Gradientometric magnetic survey of arctic ice [1993, eng] **48-3248**
Bond, G.
Correlations between climate records from North Atlantic sediments and Greenland ice [1993, eng] **48-335**
Heinrich events: triggers of ocean circulation change? [1993, eng] **48-4187**
Bond, T.H.
Low power deicer tests on a swept inlet component [1993, eng] **48-4880**
Model rotor icing tests in the NASA Lewis Icing Research Tunnel [1991, eng] **48-3688**
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel [1993, eng] **48-4887**
Surface roughness due to residual ice in the use of low power deicing systems [1993, eng] **48-4881**
Bondarenko, G.I.
Prediction of stability of solifluction slopes and structures on them [1993, eng] **48-513**
Bondarev, E.A.
Systems of earth dam freezing with forced circulation of a coolant [1994, eng] **48-3959**
Thermal interaction between water flow and frozen ground under hydroerosion [1993, eng] **48-2763**
Bondesson, L.
Assessing the risk of snow and wind damage from tree physical characteristics [1993, eng] **48-1651**
Bonington, C.
Sea, ice and rock: sailing and climbing above the Arctic Circle [1993, eng] **48-1931**
Bonnel, B.
Sea ice surface radiation flux from satellite data [1993, eng] **48-1323**
Bonnier, D.
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions [1993, eng] **48-4819**
Bonvin, J.M.
Glaciology and hydroelectric production in Switzerland [1993, fre] **48-4097**
Booth, C.R.
NSF's polar network for monitoring ultraviolet radiation [1994, eng] **48-4381**
Radiation amplification factors: improved formulation accounts for large increases in ultraviolet radiation associated with antarctic ozone depletion [1994, eng] **48-4382**
Borchers, R.
Bromine-containing source gases during EASOE [1994, eng] **48-5445**
Borgström, I.
Glacial land forms indicative of a partly frozen bed [1994, eng] **48-5162**
Boriaru, N.
General preheating system for cold starting of internal combustion engine [1994, eng] **48-3113**
Boring new ground
Boring new ground [1994, eng] **48-3786**
Borisov, V.E.
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion [1990, rus] **48-59**
Borland, S.L.
Braking traction on sanded ice [1992, eng] **48-2220**
Borns, H.W., Jr.
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica [1992, eng] **48-2624**
Borrmann, S.
Stratospheric aerosol variations in the polar vortex [1993, eng] **48-2587**
Borshch, S.V.
Automated system of short term forecasts of the development, growth and breakup of ice cover and its practical application [1992, rus] **48-1950**
Bortenschlager, S.
Glacier fluctuations and changes in the forest-limit in the Alps [1989, eng] **48-2572**
Bo, ys, R.D.
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water [1993, eng] **48-2994**
Assessment of ice particle growth processes at Dye-3, Greenland [1993, eng] **48-3894**
Bosart, L.F.
Diagnostic analysis of the Presidents' Day storm of February 1979 [1984, eng] **48-3074**
Bosch, I.
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna* [1992, eng] **48-5096**
Boselly, S.E., III
Road weather information systems for snow control [1992, eng] **48-2091**
Boshoven, H.P.A.
Time delay in the water-ice phase change during soil freezing [1993, eng] **48-887**
Bosikov, N.P.
Effect of anthropogenic factors on the intensity of cryogenic processes [1988, rus] **48-909**
Bossière, G.
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock [1993, fre] **48-2671**
Bothner, M.H.
Sedimentary framework of Boston Harbor, Massachusetts [1992, eng] **48-1926**
Bottenheim, J.W.
Depletion of tropospheric ozone during arctic spring [1990, eng] **48-3133**
Polar sunrise studies [1993, eng] **48-3048**
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic [1993, eng] **48-3911**
Bouchard, C.
Thermal regime of discontinuous permafrost in Quebec [1993, eng] **48-879**
Bouchard, G.
Aircraft ground deicing and anti-icing fluids [1994, eng] **48-3111**
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids [1994, eng] **48-3367**
Boucher, N.P.
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90 [1994, eng] **48-4387**
Boulton, G.S.
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations [1990, eng] **48-1505**
Scottish Highlands deglaciation correlated to landforms [1993, eng] **48-3797**
Bourdelles, B.
Experimental investigation of optical snow properties [1993, eng] **48-1336**
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica [1993, eng] **48-1304**
Bourgeau-Chavez, L.L.
SAR imaging of Alaskan forest fires [1994, eng] **48-5137**
Bourke, R.H.
Ambient noise characteristics of the northwestern Barents Sea [1993, eng] **48-2815**
Boutron, C.F.
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions [1993, fre] **48-4485**
Variations in Greenland snow heavy metal concentration [1993, eng] **48-3890**
Boutron, P.
Ice formation upon cooling of cryoprotectant solutions [1993, eng] **48-2451**
Boville, B.A.
Comparison of observed and modeled stratospheric water vapor [1993, eng] **48-636**
Bovis, M.J.
Hillslope geomorphology and geotechnique [1993, eng] **48-693**
Bowell, J.A.
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images [1994, eng] **48-3439**
Bowen, D.Q.
Pleistocene of North West Europe [1992, eng] **48-4770**
Bowen, S.
Arctic research of the United States, Vol.7 [1993, eng] **48-1464**
Arctic research of the United States, Vol.7 [1993, eng] **48-2122**
Bowen, S.L.
Proceedings [1993, eng] **48-857**
Bower, W.
Alaska Energy Authority PV-diesel hybrid assessment and design program [1991, eng] **48-4757**
Bower, W.I.
Use of renewable energy in selected antarctic applications [1993, eng] **48-329**
Bowers, J.D.
Evaporation from alpine tundra in the Canadian Cordillera [1990, eng] **48-1570**
Bowman, K.P.
Barotropic simulation of large-scale mixing in the antarctic polar vortex [1993, eng] **48-964**
Isentropic mixing in the antarctic polar vortex [1993, eng] **48-2474**
Ozone mixing in the antarctic polar vortex [1993, eng] **48-965**
Studies of dynamical processes affecting the distribution of stratospheric ozone [1993, eng] **48-1901**
Bowman, W.D.
Alpine willow response to increased nitrogen availability [1994, eng] **48-5421**
Nutrient cycle constraints in alpine tundra communities [1993, eng] **48-2558**
Bowser, A.J.
Aircraft propeller with electric deicers [1991, eng] **48-2247**
Boyd, A.
Paleobotanical study of West Greenland fossil vegetation [1993, eng] **48-208**
Boyd, W.K.
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska [1993, eng] **48-5426**
Corrosion control of child care centers at Air Force bases in Alaska [1993, eng] **48-5430**
Corrosion performance of an oil tank at King Salmon Airport [1993, eng] **48-5432**

AUTHOR INDEX

Boyer, D.L.
Laboratory simulation of atmospheric motions in the vicinity of Antarctica [1993, eng] **48-2146**
Boyette, M.D.
Increasing icemaking efficiency by continuous solidification [1993, eng] **48-2506**
Boyne, H.
Avalanche activity in Tuckerman Ravine [1994, eng] **48-3274**
Boynton, W.V.
Redistribution of subsurface neutrons caused by ground ice on Mars [1993, eng] **48-2057**
Bozhinskii, A.N.
Construction of distribution functions of the dynamic parameters of avalanches [1992, rus] **48-1397**
Braathen, G.O.
Temporal development of ozone within the arctic vortex during the winter of 1991/92 [1994, eng] **48-5489**
Bradbury, A.
Performance of in-situ hot mix recycling as a maintenance technique in Ontario [1993, eng] **48-5073**
Bradby, L.
Reactive carbonate in glacial systems [1994, eng] **48-5039**
Bradley, C.
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta [1990, eng] **48-2603**
Bradley, R.S.
Recent changes in arctic temperature inversions [1993, eng] **48-1469**
Brady, B.D.
Snow melting apparatus [1993, eng] **48-1655**
Brady, T.M.
Computer modeling of alpine stream diversions [1993, eng] **48-689**
Braithwaite, R.J.
Seasonal ablation of West Greenland ice sheet margin [1993, eng] **48-2390**
Braitseva, O.A.
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia [1993, eng] **48-4217**
Braley, W.A.
Applying field-expedient bioreactors and landfarming in Alaskan climates [1994, eng] **48-4004**
Brandel, G.
Simulation of snow damage in pine forests [1994, eng] **48-5144**
Brandt, M.
Integration of field data into operational snowmelt-runoff models [1994, eng] **48-4712**
Brandtjen, R.
Airborne spectroscopy of polar stratospheric chemical properties [1994, eng] **48-5480**
Brannian, J.D.
Siting the DEW line radar stations [1957, eng] **48-290**
Brantner, B.
Cloudwater droplet chemistry of Mt. Sonnblick, Austria [1994, eng] **48-4805**
Brar, G.S.
Remediation of petroleum contaminated soils through bioventing in cold regions [1993, eng] **48-2065**
Braskerud, B.
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident [1993, eng] **48-4566**
Brasseur, S.
Liquid waste management CFS Alert [1994, eng] **48-3380**
Bratsev, A.P.
Ecological-economic aspects of using natural resources in the European northeast of the USSR [1990, rus] **48-5401**
Strategy of developing regions in the European northeast of the USSR [1990, rus] **48-5402**
Braun, D.D.
Glacial and periglacial erosion of the Appalachians [1989, eng] **48-2144**
Braun, J.
Morphology of ice layers in curved rectangular channels [1993, eng] **48-863**
Braun, L.N.
Annual snow accumulation in the Langtang region [1993, eng] **48-2782**
Discharge of glacierized basins and glacier mass balance [1990, eng] **48-1573**
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis [1994, eng] **48-4709**
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation [1994, eng] **48-4710**
Precipitation-runoff model in the Langtang Khola basin [1993, eng] **48-2787**
Recent changes in glacier tongues in the Langtang Khola basin [1993, eng] **48-2776**
Simulation of snowpack and discharge in an alpine karst basin [1993, eng] **48-2789**
Snowmelt simulation using various modeling parameters [1994, eng] **48-4714**
Braune, B.M.
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States [1993, eng] **48-2707**
Brecher, H.H. **48-2988**
Relief and decay of flow stripes on Byrd Glacier, Antarctica [1993, eng] **48-1332**
Terrestrial photogrammetry of Andean glacier retreat [1992, eng] **48-1893**
Terrestrial photogrammetry of Andean glacier retreat [1993, eng] **48-1894**
Bredikhin, V.I.
Problems of power and transport industries in the Asian polar regions of Russia [1994, eng] **48-3949**
Bredow, J.W.
Synthetic dense media fabrication with application to sea ice [1993, eng] **48-1696**
Brekkestran, K.L.
Hybrid electronic control system and method for cold weather garment [1991, eng] **48-2250**
Brennan, A.M.
Permafrost: a bibliography, 1978-1982 [1983, eng] **48-2986**
Towards a permafrost information and data system [1993, eng] **48-353**
Brennand, T.A.
Ice sheet dynamics inferred from glaciofluvial sedimentology [1993, eng] **48-1218**
Implication of tunnel channels for ice sheet hydrology [1994, eng] **48-5139**
Brenner, A.C.
Ice sheet topography from retracked ERS-1 altimetry [1994, eng] **48-3441**
Bretten, S.
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident [1993, eng] **48-4553**
Breuer, K.S.
Close-up analysis of aircraft ice accretion [1993, eng] **48-4885**
Brewer, M.C.
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain [1993, eng] **48-358**
Brewster, R.A.
Effects of supercooling and freezing on natural convection in seawater [1994, eng] **48-3803**
Bridgestone Corporation
Radial tyre for improved braking performance on icy, snow and wet roads [1993, eng] **48-5528**
Brigham, L.W.
Finland breaks the ice [1987, eng] **48-2338**
Russians open the Arctic for business [1993, eng] **48-1099**
World-class icebreaker: the Canadian *Polar*-8 [1986, eng] **48-2337**
Brigham, W.D.
Flameless deicer [1993, eng] **48-1285**
Bringi, V.N.
Polarimetric radar modeling of mixtures of precipitation particles [1993, eng] **48-2107**
Polarimetric radar studies of atmospheric ice particles [1994, eng] **48-5134**
British Antarctic Survey
British Antarctic Survey report for 1992-1993 [1993, eng] **48-3821**
Britton, R.K.
Helicopter rotor performance in icing conditions [1992, eng] **48-4857**
Model rotor icing tests in the NASA Lewis Icing Research Tunnel [1991, eng] **48-3688**
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel [1993, eng] **48-4887**
Broccoli, A.J.
Climate model studies of interactions between ice sheets and the atmosphere-ocean system [1993, eng] **48-4194**
Brochu, C.
Simulation of oil biodegradation under an ice cover [1986, eng] **48-4171**
Brockett, B.E.
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska [1993, eng] **48-3491**
Brodach, M.M.
New method for estimating the heat effectiveness of a building in extreme climatic conditions [1994, eng] **48-3874**
Brodeur, C.S.
Analysis of the surface hydrology in a regional climate model [1994, eng] **48-2593**
Broecker, W.
Heinrich events: triggers of ocean circulation change? [1993, eng] **48-4187**
Broecker, W.S.
Causal implications of last deglaciation for the Younger Dryas [1988, eng] **48-1748**
Global warming on trial [1992, eng] **48-1611**
Pleistocene meltwater routing during atmospheric cooling [1989, eng] **48-1813**
What caused the glacial to interglacial CO_2 change [1991, eng] **48-4758**
Brogniez, G.
Light scattering by finite hexagonal crystals arbitrarily oriented in space [1989, eng] **48-1477**
Modeling of cirrus bidirectional reflectances [1993, eng] **48-2988**
Bromwich, D.H.
Katabatic surges across the Ross Ice Shelf [1993, eng] **48-201**
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica [1993, eng] **48-197**
Numerical simulation of West Antarctic katabatic winds [1994, eng] **48-5309**
Recent precipitation trends over the polar ice sheets [1993, eng] **48-1914**
Simulation of the modern arctic climate by the NCAR CCM1 [1994, eng] **48-5132**
Brooks, I.M.
Experimental investigation of the inductive mechanism of thunderstorm electrification [1994, eng] **48-4853**
Brooks, P.D.
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks [1993, eng] **48-2957**
Broughton, C.A.
Wind-induced heat transfer through permeable clothing [1993, eng] **48-874**
Brovin, A.I.
Concept for the evolvement of specialized ice information for shipping in the Arctic [1994, eng] **48-5631**
Browell, E.V.
Ozone and aerosol distributions in the summertime troposphere over Canada [1994, eng] **48-4625**
Brower, W.A., Jr.
Climatic study of the Greenland-Iceland-United Kingdom Gap [1992, eng] **48-3674**
Brown, A.D.
Surface water geochemistry of a Sierra Nevada watershed [1993, eng] **48-2329**
Brown, G.H.
Hydrogeochemistry of an alpine proglacial stream [1994, eng] **48-3258**
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland [1990, eng] **48-1589**
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff [1993, eng] **48-1775**
Brown, G.S.
Antenna for microwave remote sensing from geostationary orbit [1991, eng] **48-3697**
Brown, H.M.
In situ burning of oil in ice leads [1986, eng] **48-4173**
Brown, J.
Circumarctic map of permafrost and ground ice conditions [1993, eng] **48-5213**
Brown, J.A.
Gas gun experiments to determine shock wave behavior in snow: methods and data [1993, eng] **48-1005**
Brown, J.S.
Automobile heater using a latent heat storage device [1994, eng] **48-3094**
Brown, J.W.
Roof-snow load for seismic-design calculations—discussion [1994, eng] **48-2356**
Brown, K.
Norman Wells air terminal building [1994, eng] **48-3349**
Brown, K.M.
Microfossils in a High Arctic peat deposit [1994, eng] **48-5126**
Brown, P.R.A.
Ice water content in cirrus clouds [1993, eng] **48-2555**
Brown, R.D.
Ice accretion problem in Canadian waters related to offshore energy and transportation [1985, eng] **48-1128**
Recent observed trends and modelled interannual variability in Canadian snow cover [1993, eng] **48-2968**
Brown, R.J.
SAR application calibration requirements [1993, eng] **48-1511**
Brown, R.L.
Application of a mixture theory to stress waves in snow [1993, eng] **48-2866**
Microstructure-based constitutive law for snow [1993, eng] **48-2868**
Model of turbulent flow with drifting snow [1993, eng] **48-2867**
Proceedings [1993, eng] **48-2817**
Relationship between the microstructure and mechanical properties of snow [1993, eng] **48-1175**
Short term settlement of footing on snow foundation [1993, eng] **48-1176**
Statistical model for maximum avalanche run-out distances in southwest Montana [1993, eng] **48-2869**
Theoretical and experimental results of using binders for snow roads and runways in Antarctica [1993, eng] **48-1171**
Brown, R.R.
High efficiency snowthrower [1990, eng] **48-2193**
Brown, S.
Analysis of infrared imagery over the Ronne Ice Shelf [1992, eng] **48-247**
Brown, T.G.
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions [1994, eng] **48-5618**
Ice issues related to the Prince Edward Island Bridge [1994, eng] **48-5621**

Model for dynamic ice interactions with MOLIKPAQ [1992, eng] 48-1540
Modelling dynamic ice forces [1994, eng] 48-5614
Potential influences of the Prince Edward Island Bridge on the ice environment [1994, eng] 48-5622

Browne, R.P.
Model/full scale ice analysis. Volume I [1993, eng] 48-3334

Brubaker, L.B.
Late Quaternary history of tundra vegetation in northwestern Alaska [1994, eng] 48-5065
Long-term Kolyma air temperature variations from tree rings [1994, eng] 48-3509

Brugge, R.
Blizzard of 12-15 March 1993 in the USA and Canada [1994, eng] 48-3497

Brugman, M.M.
Glacier mass-balance measurements: a manual for field and office work [1991, eng] 48-312

Bruintjes, R.T.
Topographic effects on storm precipitation development [1994, eng] 48-2510

Brumby, R.E.
Effect of wing ice contamination on essential flight characteristics [1991, eng] 48-3685

Brümmer, B.
Boundary-layer observations over water and arctic sea-ice during on-ice flow [1994, eng] 48-4649

Brun, E.
Proceedings [1993, eng] 48-2817
Sensitivity of the French Alps snow cover to the variation of climatic variables [1994, eng] 48-5418

Bruneau, D.
Postglacial emergence of Ungava Peninsula, Quebec [1993, eng] 48-2205

Bruneau, S.E.
Field tests for iceberg impact loading [1994, eng] 48-5556

Bruni, F.
Hopping and dissipative tunneling of orientation defects in ice [1994, eng] 48-4703

Brunner, K.
Orthophotomaps of glacierized areas [1977, ger] 48-3311

Bruskov, A.V.
Plastic frozen (saline) soil as bases [1993, eng] 48-349

Bruun, P.
Denmark marine foreland formation and glacial eustasy [1993, eng] 48-1384
Stabilisation of the tidal entrance at Hornafjordur, Iceland [1993, eng] 48-157

Bruzewicz, A.J.
Object-oriented methods for hydrologic modeling and remote sensing [1993, eng] 48-683

Bruzzi, S.
Study on SAR land applications for snow and glacier monitoring. Final report [1988, eng] 48-3332

Bryan, J.R.
Sediment descriptions, Bransfield Strait 1986-1987 [1993, eng] 48-3816

Bryant, W.J.
Hazardous waste strategy for communities in Canada's Northwest Territories [1994, eng] 48-3356

Buch, V.
Spectra of isotopic ice mixtures [1993, eng] 48-213

Buck, S.E.
Failure modes in compressed ice [1994, eng] 48-5584

Buck, W.H.
Lubricant effects on low-temperature diesel engine cold starting [1994, eng] 48-3099

Buckingham, M.J.
On acoustic transmission in ocean-surface waveguides [1991, eng] 48-4726

Budd, G.M.
Cold stress and cold adaptation [1993, eng] 48-3738

Budd, W.F.
Modelling ice sheet and climate changes through the ice ages [1993, eng] 48-4195

Budéus, G.
Greenland Sea polynya, pt.1 [1994, eng] 48-2914

Bud'kov, S.T.
Problem of rational use and protection of forest resources in the West Siberian North [1989, rus] 48-904

Bud'kova, M.A.
Territorial plan for environmental protection in gas producing regions in Western Siberia [1989, rus] 48-903

Budnevich, S.S.
On the slip of solids on ice [1994, eng] 48-4955

Buesseler, K.O.
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987 [1993, eng] 48-4546

Bufton, J.L.
Accuracy of satellite laser altimetry of ice sheets [1994, eng] 48-4831

Buisson, L.
Avalanche modelling and integration of expert knowledge in the ELSA system [1993, eng] 48-2839

Buist, I.
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils [1993, eng] 48-3720

Buist, I.A.
Oil in pack ice: preliminary results of three experimental spills [1986, eng] 48-4174

Bukatov, A.E.
Generation of internal waves from floating ice [1992, eng] 48-2313
Ship waves in a continuously stratified basin with ice cover [1993, eng] 48-2462

Buncher, M.S.
Airfield pavement evaluation: Springfield Air National Guard Base, Ohio [1991, eng] 48-3667

Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials
Biennial report 1991/92 [1993, ger] 48-3646

Bandtzen, T.K.
Alaska's mineral industry, 1992 [1993, eng] 48-1139
Alaska's mineral industry 1993: a summary [1994, eng] 48-3114

Bunker, A.F.
Archived time-series of Atlantic Ocean meteorological variables and surface fluxes [197], eng] 48-3699

Burckle, L.H.
Evidence for Quaternary collapse of West Antarctic ice sheet [1993, eng] 48-3575

Burd, A.L.
Computer design of terminal heating substations for district heating [1993, eng] 48-2045

Burdiug, T.P.
Action of sea ice on offshore construction [1994, eng] 48-3027

Burgess, M.M.
Monitoring pipeline routes in permafrost terrain [1993, eng] 48-359

Buriez, J.C.
Modeling of cirrus bidirectional reflectances [1993, eng] 48-2988

Burkholder, J.B.
Temperature dependence of the HNO_3 UV absorption cross sections [1993, eng] 48-2472

Burkov, G.D.
Via the Northern Sea Route all year round [1986, rus] 48-1091

Burn, C.R.
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion [1993, eng] 48-5053
Intrusive ice development in lake bottom sediments [1993, eng] 48-360
Issues in Canadian permafrost research [1993, eng] 48-692
Permafrost and climatic change in northern Canada [1994, eng] 48-5127

Burn, R.A.
Permafrost surveys in western Siberia [1993, eng] 48-361

Burney, J.R.
Soil runoff sediment response to freeze thaw cycles [1993, eng] 48-1370

Burns, B.
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape [1994, eng] 48-3391

Burns, B.A.
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea [1993, eng] 48-1347
Detection of coastal polynyas with passive microwave data [1993, eng] 48-1348

Burns, B.H.
Spectral, spatial and temporal characteristics of arctic tundra reflectance [1993, eng] 48-934

Burns, P.J.
Quasi-steady temperature gradient metamorphism in idealized dry snow [1994, eng] 48-4166

Burrell, B.C.
Ice and sedimentation processes in the Saint John River, Canada [1994, eng] 48-5537

Bursey, G.G.
Estimating evaporation in a subarctic watershed [1993, eng] 48-1152

Bursik, M.
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia [1993, eng] 48-4217

Burton, D.L.
Profile nitrous o id and carbon dioxide concentrations in a soil subject to freezing [1994, eng] 48-4160

Burton, J.S.
Proceedings [1993, eng] 48-679

Burton, T.W.
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers [1990, eng] 48-4686

Busack, B.
Boundary-layer observations over water and arctic sea-ice during on-ice flow [1994, eng] 48-4649

Buscemi, C.D.
Recent research on alternative deicers at Chevron [1992, eng] 48-2089

Busch, N.J.
Alternative de-icing agents for bridges and airports [1991, dan] 48-4133

Buska, J.
Installation of a protected membrane roof at the windiest place on earth [1994, eng] 48-3962
Ventilating attics to minimize icings at eaves [1994, eng] 48-3860

Butchart, N.
Influence of climate change on arctic ozone depletion [1994, eng] 48-4596

Butko, A.I.
Study of ozone anomalies over the Molodezhnaya Station in the spring of 1990 [1992, eng] 48-1243

Butler, B.J.
Radar photography of ice at the north pole of Mercury [1993, eng] 48-752

Butler, D.R.
Topographic influences on avalanche path location [1990, eng] 48-12

Butler, W.E.
Joint ventures and the Soviet Arctic [1990, eng] 48-2609

Butsenko, A.N.
Seasonal soil freezing and hydrological processes on slopes [1993, eng] 48-2295
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic [1993, eng] 48-2284

Buttle, J.M.
Isotope hydrograph separation for drainage basins [1994, eng] 48-4973

Buzuev, A.IA.
Division into zones of the Northern Sea Route by difficulty and safety of navigation [1993, eng] 48-124
Duration of navigation without icebreakers on the Northern Sea Route [1994, eng] 48-5572

Byars, H.G.
Corrosion control of aircraft weather shelters, Eielson AFB [1993, eng] 48-5429
Corrosion control of underground oil tanks at Elmendorf AFB [1993, eng] 48-5427
Corrosion control of underground oil tanks at King Salmon [1993, eng] 48-5428

Byles, J.D.
Aircraft deicing apparatus utilizing heat distributing means [1991, eng] 48-1941

Cagnati, A.
Avalanches generated by snow and thunderstorms in Switzerland [1993, ita] 48-1132
New unified scale for avalanche danger classification [1993, ita] 48-1130

Cain, G.E.
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration [1994, eng] 48-3108

Caine, N.
Alpine stream geochemistry, Colorado Front Range [1990, eng] 48-2341
Model for ground with secondary frost heave [1993, eng] 48-5190

Calderoni, G.
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy) [1993, eng] 48-362

Calkin, P.E.
Debris-slide-initiated Alaskan flood reconstruction [1992, eng] 48-2332
Holocene glacier-climate relations in Alaskan mountains [1994, eng] 48-3627
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York [1992, eng] 48-1928

Calkins, D.J.
Environmental aspects of river ice [1993, eng] 48-215
Groundwater temperatures during the winter in a forested basin [1993, eng] 48-2923

Callaghan, R.
Laboratory simulation of polar stratospheric clouds [1994, eng] 48-4693

Callaghan, T.V.
Arctic soil mineralization following simulated climate change [1993, eng] 48-1230

Calvert, J.G.
Nitric oxide/sulfuric acid reactions at stratospheric temperatures [1994, eng] 48-3149

Calvet, J.
Geomorphology of Cape Shirreff, Livingston I. [1993, spa] 48-4688

Calvin, W.M.
Spectral contrasts between Callisto hemispheres [1993, eng] 48-1750

Cambardella, C.
Effects of freeze-thaw stress on bacterial populations in soil microcosms [1983, eng] 48-3411

Cames-Pintaux, A.M.
Thermal regime of discontinuous permafrost in Quebec [1993, eng] 48-879
Two-dimensional Stefan problem around a cooled buried cylinder [1993, eng] 48-5211

Cammaert, A.B.
Field tests for iceberg impact loading [1994, eng] 48-5556
Measurements of bergy bit and growler populations off Canada's east coast [1994, eng] 48-5554
Method for the calculation of sheet ice loads on sloping structures [1994, eng] 48-5626

Campbell, I.B.
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region [1993, eng] 48-2288
Visual assessment of environmental effect of fieldwork on ice free areas [1993, eng] 48-899

AUTHOR INDEX

Canada sizes up oil, gas strikes in Yukon, N.W.T.
Canada sizes up oil, gas strikes in Yukon, N.W.T. [1994, eng] 48-2157

Canada. Indian and Northern Affairs. Water Resources Division
Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994 [1994, eng] 48-4006
Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994 [1994, eng] 48-3264
Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994 [1994, eng] 48-4127
Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994 [1994, eng] 48-4126

Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993
Proceedings [1993, eng] 48-5066

Canadian Coast Guard. Arctic Ship Safety
Cold weather marine survival guide [1993, eng] 48-3999
Study on arctic survival, life saving equipment and navigation [1991, eng] 48-4000

Canitrot, D.
Windscreen deicing system for vehicle [1990, eng] 48-4421

Canny, B.
Proton stability of high pressure ice at low temperature [1993, eng] 48-2092

Canzani, A.
Porous inert road grit [1990, eng] 48-2171

Cao, F.S.
Action of ice push force against the dam and slope protection in reservoirs [1994, eng] 48-5548

Cao, M.S.
First revisal of SMMR world map over western China [1992, chi] 48-2017

Cao, Z.T.
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains [1993, chi] 48-4591

Cape, J.N.
Influence of acidic mist on spruce frost hardiness, pt.1 [1993, eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2 [1993, eng] 48-4281

Caranti, G.M.
Charge transfer during individual collisions in ice growing by riming [1991, eng] 48-3682
Laboratory study of static charging by fracture in ice growing by riming [1994, eng] 48-4851

Carbonaro, M.
Aerodynamic effects of de/anti-icing fluids [1991, eng] 48-3694

Careri, G.
Hopping and dissipative tunneling of orientation defects in ice [1994, eng] 48-4703

Cariolle, D.
3D transport model study of chlorine activation during EASOE [1994, eng] 48-5504
GCM study of the late January 1991 "mini-hole" event observed during EASOE [1994, eng] 48-5502
Three-dimensional transport model study of PSC processing during EASOE [1994, eng] 48-5503

Carleton, A.M.
Antarctic sea-ice relationships with indices of the atmospheric circulation of the Southern Hemisphere [1989, eng] 48-1660
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere [1990, eng] 48-1425
Synoptic aspects of antarctic mesocyclones [1993, eng] 48-198

Carlsson, H.
Stabilization of sand in a roadbase—Swedish road research [1993, swe] 48-1377

Carlström, A.
Radar backscatter from sea ice during freeze-up [1993, eng] 48-1227

Carmack, E.C.
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary [1994, eng] 48-4413

Carpenter, C.L.
Biodegradation of aircraft deicing fluids in soil at low temperatures [1993, eng] 48-3265

Carpenter, D.A.
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere [1990, eng] 48-1425

Carrara, P.E.
Volcanic ash strata related to Colville Valley deglaciation [1992, eng] 48-3236

Carrasco, J.F.
Katabatic surges across the Ross Ice Shelf [1993, eng] 48-201
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica [1993, eng] 48-197

Carrasco-Núñez, G.
Mexican volcanic lahar hazard assessment [1993, eng] 48-3233

Carrasquillo, R.L.
Effects of high-range water reducers on the properties of fresh and hardened concrete [1989, eng] 48-3707

Carreiro, M.M.
Room temperature isolations of low temperature microfungi [1992, eng] 48-3409

Carrick, J.
Development of stone mastic asphalt mixes for Ontario use [1993, eng] 48-5086

Carroll, S.S.
Snow water equivalent estimates from spatial modeling of data [1993, eng] 48-2931

Carroll, T.R.
Estimating snow water equivalent using a GIS [1993, eng] 48-684
Gridded snow water equivalent estimation using ground-based and airborne snow data [1993, eng] 48-2930
Refinements in the remote sensing of snow-covered area [1990, eng] 48-2426
Snow water equivalent estimates from spatial modeling of data [1993, eng] 48-2931

Carsey, F.D.
Coupled ice-ocean variability in the Greenland Sea [1993, eng] 48-2352
Identification of modeled ocean plumes in Greenland gyre ERS- 1 SAR data [1993, eng] 48-2210
RADARSAT: Antarctic Mapping Project [1993, eng] 48-1915
Surface processes in Greenland Sea convection [1994, eng] 48-3463

Carson, R.
Criteria for increased ice discharge capacity of the upper Niagara River [1994, eng] 48-5607
Studies of ice jamming in the upper Niagara River: introduction and background [1994, eng] 48-5605

Carstens, T.
Case study of trash rack icing using a numerical model [1994, eng] 48-5602
Production of icebergs and observed extreme drift speeds in the Barents Sea [1993, eng] 48-127

Carten, A.S., Jr.
Investigation of the feasibility of operating large tethered aerostats in the Arctic [1984, eng] 48-4400

Carter, E.J.
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water [1993, eng] 48-2994

Carter, J.E.
Determination of the flow and impact pattern of ice pieces under ice breaking ships [1994, eng] 48-5630

Carter, L.D.
Global warming implications for eolian processes in permafrost [1993, eng] 48-363
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain [1993, eng] 48-358

Carter, P.
Alberta Concrete Patch Evaluation Program [1987, eng] 48-4402

Carton, A.
Dendrochronology and glacier variations in the Italian Alps [1993, ita] 48-4095
Permafrost distribution in the Italian mountains [1993, eng] 48-356

Caruso, M.J.
Summertime synoptic variability of frontal systems in the northern Bering Sea [1994, eng] 48-4052

Carver, G.D.
Accuracy of the isentropic trajectories calculated for the EASOE campaign [1994, eng] 48-5440
Case study in forecasting the stratospheric vortex during EASOE [1994, eng] 48-5500
Some case studies of chlorine activation during the EASOE campaign [1994, eng] 48-5495
Visualizing the evolution of the stratospheric polar vortex in January 1992 [1994, eng] 48-5501

Casassa, G.
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling [1993, eng] 48-5431
Relief and decay of flow stripes on Byrd Glacier, Antarctica [1993, eng] 48-1332
Report on polar regions AVHRR workshop [1993, eng] 48-1293

Cassell, E.A.
Object-oriented methods for hydrologic modeling and remote sensing [1993, eng] 48-683

Castle, D.A.
Monitoring of snow and ice accretion on overhead line test spans [1993, eng] 48-836

Catchpole, A.J.W.
Evidence from Hudson Bay region of severe cold in the summer of 1816 [1985, eng] 48-2722

Cate, D.W.
Arctic research of the United States, Vol.7 [1993, eng] 48-1464
Arctic research of the United States, Vol.7 [1993, eng] 48-2122

Cater, T.C.
Use of snow capture for land rehabilitation in arctic oilfields [1993, eng] 48-408

Cattaneo, G.
Development of regulations for certification of civil aviation under icing conditions [1991, fre] 48-3686

Cattle, H.
Antarctic climate of the UKMO Unified Model [1994, eng] 48-3041
Arctic response to CO_2-induced climatic warming [1993, eng] 48-4205
Precipitation field forecasting over the antarctic region [1993, eng] 48-200

Cavaletto, J.F.
Ice algae primary productivity in the high arctic [1993, eng] 48-85

Cavalieri, D.J.
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica [1993, eng] 48-1311
Microwave technique for mapping thin sea ice [1994, eng] 48-4992

Cavanié, A.
First try at identification of sea ice using the three beam scatterometer of ERS-1 [1994, eng] 48-4471
Identification of sea ice zones by satellite scatterometer [1994, eng] 48-3483
Recognition of sea ice zones using ERS-1 scatterometer data [1993, eng] 48-1702

Cebeci, T.
Prediction of ice shapes and their effect on airfoil drag [1994, eng] 48-4062

Cederberg, H.O.
Unique cold start method used on Volvo's new 12L unit injector diesel engine [1994, eng] 48-3112

Cember, R.P.
Atlas of snowfall and snow depth [1993, eng] 48-1108
Measurement of the water equivalent of snow on the ground [1993, eng] 48-2933

Cerrato, Y.
Exact solution for the Stefan problem in different geometries [1994, eng] 48-2573

Cerutti, A.V.
Advance of Italian glaciers of Mont Blanc between 1962 and 1989 [1993, ita] 48-4098

Cescon, P.
Italian antarctic research on the chemistry of environmental impact [1992, ita] 48-3245

Chacho, E.F., Jr.
Snowmelt runoff and total solids production in a discontinuous permafrost basin [1993, eng] 48-1151

Chai, S.K.
Ice crystal formation in cloud seeding processes [1993, eng] 48-1742

Chakhov, V.K.
Dynamics of the decomposition of butyl 2,4-D ether in frozen soils [1988, rus] 48-913

Chakiridi, S.N.
Characteristics of the structural formation of weld seams, applied by an irregular fusion method [1990, rus] 48-54

Chalikov, D.V.
Modeling the Pleistocene ice ages [1990, eng] 48-1677

Chalise, S.R.
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya [1993, eng] 48-2770

Chalysheva, L.V.
Recultivation of oil-contaminated soils [1990, rus] 48-5404

Chamberlain, E.J.
Changes in hydraulic conductivity caused by freeze-thaw [1992, eng] 48-1110

Chamis, C.C.
BLASIM: a computational tool to assess ice impact damage on engine blades [1993, eng] 48-2640
Root damage analysis of aircraft engine blade subject to ice impact [1992, eng] 48-4882

Chamuel, J.R.
Transient seismo-acoustic waves in liquid/solid interfaces [1991, eng] 48-4724

Chan, A.B.
Semi-empirical transient method for modelling frost formation on a flat plate [1993, eng] 48-3200

Chan, K.C.
Computer simulation of underground cable thermal environment [1993, eng] 48-2050

Chanasyk, D.S.
Isotopic determination of snow-water contribution to soil water and groundwater [1994, eng] 48-4981

Chandrasekar, V.
Polarized radar discrimination of mixed precipitation [1994, eng] 48-2325

Chang, A.
Radiometry of snow cover structure [1993, eng] 48-1318

Chang, A.T.C.
First revisal of SMMR world map over western China [1992, chi] 48-2017

Chang, H.P.
Particle trajectory computer program for icing analysis of axisymmetric bodies [1992, eng] 48-4861

Chang, J.S.
Three dimensional cloud dynamics model, pt.4 [1993, eng] 48-953

Chang, N.S.
Ice depolarization during rainfall events [1994, eng] 48-4214

AUTHOR INDEX

Chang, R.V.
Creation of water-impervious frozen screens in earth dams in central Yakutia [1993, eng] **48-514**
Chang, X.X.
Determining strength of frozen soil with radial-split method [1992, chi] **48-1418**
Primary research of determining strength of frozen soil with axial-split method [1993, chi] **48-1446**
Uniaxial stress relaxation of frozen loess [1992, chi] **48-1415**
Uniaxial stress relaxation of frozen loess [1993, eng] **48-5250**
Chang, Y.
Critical segregation potential—frost heave upper limit [1993, eng] **48-461**
Chanton, J.P.
Radon 222 tracing of boreal forest gas exchange [1994, eng] **48-4639**
Chao, J.C.
Analysis of ice rubble shear strength data [1993, eng] **48-4331**
Computation of sheet ice and ridge ice forces on a faceted cone [1993, eng] **48-152**
Chapin, F.S., III
Arctic and alpine biodiversity: patterns, causes and ecosystem consequences [1994, eng] **48-4163**
Soil nitrogen effects on Tanana River floodplain tree succession [1993, eng] **48-648**
Chapman, D.S.
Underground records of changing climate [1993, eng] **48-1936**
Chapman, R.
Alaska Energy Authority PV-diesel hybrid assessment and design program [1991, eng] **48-4757**
Chapman, W.L.
Arctic sea ice variability: model sensitivities and a multidecadal simulation [1994, eng] **48-2811**
Chappellaz, J.
Firn chemistry at Vostok Station [1994, eng] **48-4218**
Chappellaz, J.A.
Synchronous changes in atmospheric CH4 and Greenland climate between 40 and 8 kyr bp [1993, eng] **48-1668**
Charbonneau, R.
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada [1993, eng] **48-2206**
Charest, B.A.
Low-temperature admixtures for concrete [1994, eng] **48-3354**
Charles, C.D.
Isotope shifts reflect Greenland moisture source changes [1994, eng] **48-2667**
Charlier, C.
Avalanche modelling and integration of expert knowledge in the ELSA system [1993, eng] **48-2839**
Chasteen, R.E.
Method and apparatus for conserving battery power in a snowmobile electrical system [1991, eng] **48-2251**
Chauhan, D.S.
Solutes and suspended sediments in Ganga meltwaters [1993, eng] **48-2802**
Chaus, A.K.
Basic characteristics of the engineering-geocryological conditions of the highlands of inner Tian Shan [1990, rus] **48-1240**
Plan for large-scale engineering-geocryological zoning of the highlands of central Tian Shan [1990, rus] **48-1238**
Chauve, P.
Snowmelt in medium-high mountains and recharging of underlying karst [1990, fre] **48-1574**
Chechetkina, L.G.
Floristic findings in the Stanovo Nagor'e (Eastern Siberia) [1993, rus] **48-1636**
Cheever, M.S.
Construction on the DEW line [1957, eng] **48-291**
DEW line's construction seasons [1957, eng] **48-288**
Chekan, J.P.
Force required to shear snow from road surface aggregates [1990, eng] **48-3262**
Chekhovskii, A.L.
Ecological and geocryological classification of western Siberia [1993, eng] **48-5194**
Engineering and geocryological problems of the development in the North of Yamal [1994, eng] **48-3404**
Permafrost along the Yamal Peninsula gas pipeline [1993, eng] **48-5193**
Chemerenko, E.P.
Long range forecasting of spring inflow into the Chebaksary reservoir [1992, rus] **48-1947**
Chen, G.Q.
Coupled heat and mass transfer during freeze drying processes [1994, eng] **48-3318**
Chen, H.H.
Prediction of ice shapes and their effect on airfoil drag [1994, eng] **48-4062**
Chen, H.J.
NYTEMP user's manual: a pavement temperature model [1993, eng] **48-1839**
Chen, H.K.
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains [1992, chi] **48-2015**
Chen, H.Z.
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway [1993, eng] **48-368**
Chen, J.P.
Cloud ice crystal growth by vapor deposition [1994, eng] **48-4475**
Chen, J.Y.
Estimation of alpine glacier water resources and their change since the 1870s [1990, eng] **48-1576**
On the influence of alpine glaciers on runoff [1990, eng] **48-1575**
Chen, K.L.
Artificial freezing of oil polluted and saline soils [1994, eng] **48-5595**
Chen, Q.H.
Solar radiation and frost penetration under canal banks [1993, eng] **48-5219**
Chen, R.J.
Experimental studies on ice segregation and the modes of frost heaving [1993, eng] **48-5195**
Relationship between ice intrusion temperature and confined pressure [1993, eng] **48-5196**
Chen, R.R.
Laboratory simulation of atmospheric motions in the vicinity of Antarctica [1993, eng] **48-2146**
Chen, T.H.H.
Molecular biology of plant cold hardiness development [1993, eng] **48-1250**
Chen, X.B.
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride [1993, eng] **48-376**
Frost susceptibility of powdered calcium carbonate [1993, eng] **48-5198**
Permafrost around CGWS, Antarctica [1993, eng] **48-364**
Prevention of frost damage to canals [1993, eng] **48-5189**
Profiles of freezing point and unfrozen water content around CGWS, Antarctica [1993, eng] **48-480**
Chen, X.S.
Consolidation of deep layer frozen soils in triaxial tests [1993, eng] **48-5222**
Heave and settlement of soils in one freeze-thaw cycle [1993, eng] **48-5197**
Chen, Y.C.
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] **48-2693**
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] **48-4323**
Two-dimensional model for river ice dynamics [1994, eng] **48-3545**
Chen, Z.T.
Mathematical model of Yellow River ice regime control [1992, eng] **48-1549**
Cheng, C.F.
Cloud screening in AVHRR digital data over arctic regions [1993, eng] **48-1353**
Cheng, E.Y.
Research of frost heave property of soil in Daqing region [1993, eng] **48-405**
Shallow cover design and construction technology of building foundation in Daqing region [1993, chi] **48-4494**
Shallow cover design and construction technology of building foundations in Daqing region [1993, eng] **48-5217**
Cheng, G.D.
Development condition of cryosols in alpine and plateau regions of western China [1993, eng] **48-2277**
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes [1992, chi] **48-1422**
Influence of pore characteristic on deformation during material freezing [1993, chi] **48-1432**
Influence of porous characteristic of material on displacement during freezing [1993, eng] **48-417**
Recent permafrost degradation along the Qinghai-Tibet Highway [1993, eng] **48-5183**
Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost [1993, chi] **48-4569**
Cheng, K.C.
Thermosyphon solar collector systems in cold regions [1993, eng] **48-892**
Cheng, M.D.
Qualitative determination of source regions of aerosol in Canadian High Arctic [1993, eng] **48-1741**
Cheng, Q.H.
Study of forecast of frost heave on canals [1993, eng] **48-420**
Cherkasov, P.A.
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements [1992, rus] **48-4459**
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years [1992, rus] **48-4469**
Cherkinskiĭ, A.E.
Holocene glacier variations in the Tian Shan [1994, eng] **48-4943**
Pool and renovation time of soil carbon in northern taiga and tundra of European Russia [1993, eng] **48-2306**
Cherniad'eva, I.V.
Leafy mosses in the middle current of the Sebayakha River (Central Yamal) [1993, rus] **48-5283**
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula [1993, rus] **48-1644**
Cherniagina, O.A.
Forest tundras of Kamchatka: problems of protection and use [1989, rus] **48-901**
Cherniakov, Y.A.
Stress-strain state of frozen rocks at their thawing around excavations [1993, eng] **48-516**
Chernousov, V.V.
Multipurpose underwater transport ship outfitted for the Arctic [1992, rus] **48-748**
Cherskii, I.N.
Construction in polar regions using local raw materials [1994, eng] **48-3948**
International Soviet-Scandinavian Semirar: machines, materials and structures in arctic conditions; abstracts [1991, rus] **48-1910**
Tribology of frost-resistant antifriction materials [1994, eng] **48-3980**
Chervin, J.C.
Proton stability of high pressure ice at low temperature [1993, eng] **48-2092**
Chesnovitskii, K.G.
Production of pour-point depressants for diesel and furnace fuels [1993, eng] **48-981**
Chevychelov, A.P.
Microelements in soils of southern Yakutia [1992, rus] **48-4146**
Pyrogenesis and evolution of cryogenic soils [1993, eng] **48-2289**
Chiba, S.
Isotopic fractionation during grain coarsening of wet snow [1993, eng] **48-2840**
Chien, J.Y.L.
Analysis of visible and microwave satellite data for snow mapping in Alaska [1993, eng] **48-2937**
Chikara, S.
Suppression of sea-ice clutter and detection of targets [1990, jpn] **48-4684**
Childress, A.E.
Effect of simulated climate change on snowmelt runoff modeling in selected basins [1993, eng] **48-2019**
China, P.N.
New diesel low temperature operability test—AGELFI filtration test [1994, eng] **48-3088**
Ching, C.Y.
Effects of background rotation on turbulent line plumes [1993, eng] **48-1118**
Lead-induced convection: a laboratory perspective [1993, eng] **48-315**
Chinn, T.J.
Dating of a New Zealand moraine sequence [1993, eng] **48-3131**
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983 [1986, eng] **48-3044**
Chintamani, S.H.
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration [1994, eng] **48-3108**
Chipanshi, A.C.
Tower-based measurements of CO_2 wetland fluxes [1994, eng] **48-4609**
Wetland energy budget measurements using Bowen ratio techniques [1994, eng] **48-4610**
Chipperfield, M.P.
3D transport model study of chlorine activation during EASOE [1994, eng] **48-5504**
Polar stratospheric cloud dynamics during arctic winters [1994, eng] **48-5119**
Three-dimensional transport model study of PSC processing during EASOE [1994, eng] **48-5503**
Chirita, I.
Overhead electric line poles protection against mechanical overloads [1993, eng] **48-844**
Chistiakov, V.K.
Behavior of a deep hole drilled in ice at Vostok Station [1994, eng] **48-5352**
Chizhov, A.B.
Ecological-geological regionalization of the cryolithozone in the USSR [1993, eng] **48-2540**
Chizhov, V.E.
Model of snow melting from pulse irradiation [1993, eng] **48-975**
Chkheidze, I.I.
Spin probe study of frozen aqueous solutions [1989, eng] **48-3756**
Chlond, A.
Three-dimensional simulation of cloud street development during a cold air outbreak [1992, eng] **48-3072**
Chmil, A.N.
Procedure for protecting soils from water erosion [1992, eng] **48-4070**

AUTHOR INDEX

Cho, J.Y.N.
Polar mesosphere summer radar echoes: observations and current theories [1993, eng] **48-1649**
Cho, K.
Application of MOS-1 MSR data for sea ice study [1990, jpn] **48-4683**
Disintegrating ice front of Shirase Glacier, East Antarctica [1993, eng] **48-1061**
Near real time satellite SAR image data transmission system [1993, eng] **48-1055**
Choi, J.
Upward solidification of a binary solution saturated porous medium [1993, eng] **48-697**
Choi, K.S.
Study on the stem angle and icebreaking capability of icebreaking vessels [1993, eng] **48-4346**
Choi, S.K.
Elastic-plastic analysis of narrow truncated floating ice wedge [1993, eng] **48-4333**
Choromanski, D.R.
Geological, geochemical, and operational summary, Aurora Well [1994, eng] **48-3329**
Chou, I.M.
Calculation of the vapor-saturated liquidus for the NaCl-CO2- H2O system [1993, eng] **48-1769**
Chou, J.
Polar scene classification using multi-spectral methods [1994, eng] **48-4647**
Chouinard, L.E.
Estimation of burial depths for pipelines in the Beaufort Sea [1993, eng] **48-153**
Chouinard, Y.
Climbing ice [1978, eng] **48-1930**
Chow, W.K.
Computer simulation of underground cable thermal environment [1993, eng] **48-2050**
Chowdhury, T.
Oil spreading in surface waters with an ice cover [1993, eng] **48-317**
Christensen, F.T.
Ice ride-up and pile-up on shores and coastal structures [1994, eng] **48-4980**
Multi-year sea ice mapping by thermal infrared radiometry [1994, eng] **48-4472**
Nested grid sea ice modelling [1993, eng] **48-165**
Oil spill simulations as a contingency planning tool offshore West Greenland [1993, eng] **48-158**
Christensen, T.R.
Methane emission from arctic tundra [1993, eng] **48-1814**
Seasonal emission of methane from the active layer of organic tundra soils—scale and controlling factors [1993, eng] **48-2308**
Christersson, L.
Advances in plant cold hardiness [1993, eng] **48-1249**
Christiansen, E.A.
Canadian till preconsolidation by glacial loading [1993, eng] **48-1220**
Study of a glaciotectonic landform, Prince Albert, Saskatchewan [1993, eng] **48-1224**
Christianson, C.B.
Chemical denitrification in frozen soils [1981, eng] **48-3924**
Christie, S.J.
Abstracts [1993, eng] **48-796**
Christon, M.
Quasi-steady temperature gradient metamorphism in idealized dry snow [1994, eng] **48-4166**
Christy, S.R.
Adverse weather test site selection study [1992, eng] **48-4749**
Chu, C.H.
Control of ice melting by temperature perturbation [1993, eng] **48-600**
Chu, L.T.
Simulation of heterogeneous reactions within polar stratospheric clouds [1993, eng] **48-2463**
Uptake of HCl in water ice and nitric acid ice films [1993, eng] **48-966**
Chu, M.L.
Influences of aerodynamic forces in ice shedding [1994, eng] **48-4829**
Chu, S.P.
Global warming and the growth of ice sheets [1994, eng] **48-3255**
Chu, Y.C.
Thermodynamic properties of supercooled liquid water [1994, eng] **48-5023**
Chuan, R.L.
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions [1993, eng] **48-3902**
Chubachi, S.
Total ozone related to stratospheric temperature over Showa Station [1993, eng] **48-593**
Chubu Regional Construction Bureau
Snow and cold weather operations at the Chubu Regional Construction Bureau [1988, jpn] **48-581**
Chugoku Regional Construction Bureau
Snow and cold weather countermeasures at the Chugoku Regional Construction Bureau [1988, jpn] **48-583**
Chumichev, V.B.
Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers [1993, eng] **48-4523**
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean [1993, eng] **48-4524**
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992 [1993, eng] **48-4532**
Chun, B.S.
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash [1993, eng] **48-3117**
Chung, J.S.
Proceedings. Vol.2 [1993, eng] **48-4312**
Churaev, N.V.
Estimates of the viscosity of nonfreezing layers of water [1994, eng] **48-3834**
Nonfreezing water layer thickness relation to ice pressure [1994, eng] **48-3833**
On the non-freezing water interlayers between ice and a silica surface [1993, eng] **48-2429**
Chuvilin, E.M.
Heat and mass transfer in frozen saline kaolin [1992, chi] **48-2009**
Heat-mass transfer and deformation in frozen saline kaolin [1992, chi] **48-1408**
Peculiarities of gas hydrate formation in sands [1993, eng] **48-379**
Primary study on interface conditions of ice-saturated clay [1992, chi] **48-1409**
Structure and texture formation of frozen sapropel [1993, eng] **48-365**
Chýlek, P.
Absorption and scattering of microwaves by falling snow [1993, eng] **48-2004**
Effect of air bubbles on radar backscattering by hailstones [1994, eng] **48-2887**
Longwave radiative properties of polydispersed hexagonal ice crystals [1994, eng] **48-3807**
Chzhan, R.V.
Characteristics of the layout and operation of meliorative channels in Yakutia [1992, rus] **48-4786**
Cioce, F.
Biology of the Weddell/Scotia Confluence and of the ice edge [1992, ita] **48-4212**
Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992
Changing circumpolar north: opportunities for academic development [1994, eng] **48-4403**
Claes, D.C.
Mixed layer dynamics in the onset of freezing [1990, eng] **48-3668**
Claffey, K.J.
Atmospheric sciences on Ice Station Weddell [1992, eng] **48-3780**
End-capping procedure for cored ice samples used in tension tests [1993, eng] **48-3596**
Use and calibration of Rosemount ice detectors for meteorological research [1993, eng] **48-825**
Vector analysis of ice-fabric data [1993, eng] **48-2392**
Clague, J.J.
Canadian ice sheet decay in the Late Pleistocene [1993, eng] **48-3588**
Record of jökulhlaups from Summit Lake, northwestern British Columbia [1993, eng] **48-1221**
Claridge, G.G.C.
Visual assessment of environmental effect of fieldwork on ice free areas [1993, eng] **48-899**
Clark, C.D.
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations [1990, eng] **48-1505**
Clark, D.H.
Implication of debris-covered glaciers for snowline reconstruction [1994, eng] **48-5062**
Clark, J.I.
Comparison of pressuremeter test results in sea ice [1994, eng] **48-4481**
Verification of offshore structure foundation standards [1993, eng] **48-1016**
Clark, J.R.
Microwave cloud water parameter applied to aircraft icing [1994, eng] **48-5436**
Clark, M.J.
Sampling standards for arctic sediment transfer studies [1988, eng] **48-2567**
Clark, M.M.
Implication of debris-covered glaciers for snowline reconstruction [1994, eng] **48-5062**
Clark, P.U.
Climatic implications of Laurentide ice sheet instability [1994, eng] **48-3326**
Laurentide ice sheet development following the last interglaciation [1993, eng] **48-2878**
Subglacial drainage beneath the Laurentide ice sheets [1994, eng] **48-3628**
Clark, R.N.
Spectral contrasts between Callisto hemispheres [1993, eng] **48-1750**
Clark, T.L.
Topographic effects on storm precipitation development [1994, eng] **48-2510**
Clarke, G.K.C.
Subglacial hydraulic properties estimated from basal water pressure [1993, eng] **48-2396**
Subglacial measurement of turbidity and electrical conductivity [1993, eng] **48-2404**
Claud, C.
Satellite observations of Norwegian Sea polar low [1993, eng] **48-226**
Clausen, H.B.
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] **48-1899**
Hole liquids and gaskets for the ISTUK deep ice core drill [1994, eng] **48-5359**
Transformation process observations of polar firn to ice [1993, eng] **48-2852**
UCPH borehole logger [1994, eng] **48-5349**
Claussen, M.
On the momentum forcing of a large-scale sea-ice model [1993, eng] **48-2807**
Cleland, A.C.
Mathematical model of ice-bank system performance [1993, eng] **48-3199**
Clement, C.
Physiology of High Arctic sea ice algae [1990, eng] **48-3242**
Clemente-Colon, P.
Great Lakes SAR ice research applications demonstration [1994, eng] **48-3473**
Cline, D.W.
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification [1993, eng] **48-2953**
Clive, S.O.
Snow algae and other microbes in several alpine areas in New England [1993, eng] **48-2941**
Clough, A.H.
Alaska's mineral industry, 1992 [1993, eng] **48-1139**
Alaska's mineral industry 1993: a summary [1994, eng] **48-3114**
Coates, K.D.
Pine growth on a vegetation-controlled frost-prone site [1994, eng] **48-4809**
Coates, P.A.
Trans-Alaska pipeline controversy: technology, conservation, and the frontier [1993, eng] **48-5269**
Cochet, N.
Ice nucleation by bacteria: production and activity [1994, eng] **48-3840**
Cochran, G.V.B.
Exploratory mountaineering: the Arctic Islands of Canada [1993, eng] **48-73**
Cochran, J.K.
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987 [1993, eng] **48-4546**
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean [1993, eng] **48-4543**
Cochran, S.W.
Enthalpies of water + methanol mixtures between 180 K and 320 K [1991, eng] **48-925**
Cochrane, J.E.
Evaluation of deterministic models for near surface soil moisture prediction [1988, eng] **48-5377**
Coe, J.A.
Photogrammetry of Eliot Glacier surface variations, Mt. Hood [1993, eng] **48-1317**
Coetzee, N.F.
Pavement damage factors during spring thaw in Alaska [1994, eng] **48-4910**
Coffey, D.A.
Anti-icing compositions for e.g. aircraft wing surfaces, with increased hold over time [1993, eng] **48-5519**
Cohen, J.
Snow cover and climate [1994, eng] **48-4768**
Cohen, S.C.
Glacier mass balance variations related to tectonic activity [1993, eng] **48-1152**
Cohen-Tenoudji, F.
Ultrasonic measurements in frozen soils [1993, eng] **48-465**
Colbeck, S.C.
Bottom temperatures of skating skis on snow [1994, eng] **48-2632**
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms [1993, eng] **48-1006**
International classification of seasonal snow on the ground [1993, ita] **48-1135**
Proceedings [1993, eng] **48-2817**
Review of the friction of snow skis [1994, eng] **48-4952**
Cole, D.
Thermal anti-ice protection for aircraft [1993, eng] **48-4427**
Cole, H.
Global change policy for Alaska [1992, eng] **48-2042**
Coleman, D.C.
Effects of freeze-thaw stress on bacterial populations in soil microcosms [1983, eng] **48-3411**

Collett, J.L., Jr.
Contributions of cloud processes to precipitation chemistry in mixed phase clouds [1993, eng] **48-218**

Collett, T.S.
Map of permafrost depth, North Slope, AK [1989, eng] **48-2505**
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska [1993, eng] **48-2098**
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska [1993, eng] **48-366**

Collins, C.M.
Distribution of white phosphorus residues from the detonation of 81-mm mortar WP smoke rounds at an upland site [1993, eng] **48-1002**
Environmental effects of crude oil spills in interior AK [1994, eng] **48-5115**
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later [1993, eng] **48-722**
Ground temperature measurement at a permafrost site [1993, eng] **48-5199**
Permafrost mapping using GRASS [1993, eng] **48-5212**
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] **48-3792**

Collins, D.N.
Suspended sediment transport in glacier meltwaters [1990, eng] **48-1590**
Variability of runoff from partially-glacierised alpine basins [1990, eng] **48-1587**

Collins, J.
Dog sled safety on ice [1994, eng] **48-3270**
Low power diamond rock coring parameters [1994, eng] **48-5336**

Collins, J.E., Jr.
Ozone measurement in the polar stratosphere during AASE II [1993, eng] **48-2585**

Collins, R.L.
Gravity waves in the antarctic mesosphere [1994, eng] **48-4049**

Colman, R.A.
Snow and cloud feedbacks modelled by an atmospheric general circulation model [1994, eng] **48-3256**

Colman, S.M.
Glacial Lake Agassiz meltwater influx into Lake Michigan [1994, eng] **48-4951**

Colonell, J.M.
Oceanographic effects of Beaufort Sea causeways [1993, eng] **48-792**

Colony, R.L.
Arctic geostrophic drag coefficients from drift station data [1994, eng] **48-3136**
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986 [1989, eng] **48-3333**
International Arctic Buoy Program data report for 1 January 1992-31 December 1992 [1993, eng] **48-3285**

Coltorti, M.
Slope-waste deposits in the Italian Apennines [1988, eng] **48-2562**

Combellick, R.A.
Earthquake Alaska—are we prepared [1994, eng] **48-5035**
Peat stratigraphic indications of Alaskan earthquake frequency [1994, eng] **48-3564**
Sedimentological geochronology in Alaskan marshes [1994, eng] **48-3563**

Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992
Impacts of climate change on resource management in the North [1992, eng] **48-2030**

Combs, S.K.
Pellet injection technology [1993, eng] **48-1762**

Comeau, D.
Aircraft de-icing and anti-icing composition [1990, eng] **48-2266**

Comfort, G.
Assessment of ice boom technology for application to the upper Niagara River [1994, eng] **48-5612**
Size effect on pack ice driving forces [1992, eng] **48-1557**

Comiskey, A.L.
Vessel icing in Alaskan waters—1979 to 1984 data set [1985, eng] **48-1143**

Comiso, J.C.
Ice regimes from satellite microwave data [1993, eng] **48-1698**
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines [1993, eng] **48-2244**
Polar regions surface temperatures from Nimbus 7 [1994, eng] **48-3305**
Recent sea-ice retreat west of the Antarctic Peninsula [1993, eng] **48-620**
Remotely sensed sea ice distribution and temperature in arctic seas [1994, eng] **48-3304**
Report on polar regions AVHRR workshop [1993, eng] **48-1293**

Comoglio, R.L.
Adverse weather test site selection study [1992, eng] **48-4749**

Conant, R.T.
Alpine willow response to increased nitrogen availability [1994, eng] **48-5421**
Nutrient cycle constraints in alpine tundra communities [1993, eng] **48-2558**

Concepts for offshore exploration in pack-ice areas—Phase II. Summary report
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report [1993, eng] **48-2643**

Concrete goes to sea for oil
Concrete goes to sea for oil [1994, eng] **48-4039**

Conde, M.
Acoustic detection of ice crystals in antarctic waters [1994, eng] **48-5006**

Coney, J.E.R.
Experimental study of warm-air defrosting of heat-pump evaporators [1993, eng] **48-3198**

Conklin, M.H.
Atmosphere-snow transfer function for hydrogen peroxide [1993, eng] **48-2675**
SO2 uptake on ice spheres: liquid nature of the ice-air interface [1993, eng] **48-954**
Sulfur dioxide reactions on ice surfaces [1993, eng] **48-132**
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow [1993, eng] **48-3906**

Connelly, W.
Evaluating oil, gas opportunities in western Siberia—reservoir description [1992, eng] **48-2447**

Conner, C.
Initiation decision report—arctic nearshore cable installations [1993, eng] **48-1845**

Connery, C.A.
Water treatment apparatus and method [1989, eng] **48-4082**

Connery, D.R.
Classification of alpine vegetation using Landsat data [1994, eng] **48-4011**

Connolley, W.M.
Antarctic climate of the UKMO Unified Model [1994, eng] **48-3041**
Global climate models and Antarctica [1992, eng] **48-783**

Connor, B.
Pavement damage factors during spring thaw in Alaska [1994, eng] **48-4910**

Connor, M.B.
Ice melter comprising an alpha-methyl glucoside and method of making same [1990, eng] **48-2257**

Conrad, J.
Instruments for measuring subice algal profiles and productivity *in situ* [1993, eng] **48-3201**

Conrads, L.A.
Glacier mass balance, pt. 2. Application to Greenland ice sheet [1991, eng] **48-3654**

Consolini, G.
Hopping and dissipative tunneling of orientation defects in ice [1994, eng] **48-4703**

Constantinescu, S.
Influence of the bar shape of a trash rack on the ice particle trajectory [1994, eng] **48-3970**

Construction calculation for freeze and thaw depths in soils
Construction calculation for freeze and thaw depths in soils [1988, eng] **48-763**

Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991
Proceedings [1993, ita] **48-4091**

Conway, H.
Infiltration of water into snow [1994, eng] **48-4451**
Measurements during rain on snow [1994, eng] **48-3273**
Physical processes in snowpacks during rain or melt events [1994, eng] **48-2698**
Snow stability during rain [1993, eng] **48-3590**

Conway, J.W.
Hail growth analysis using dual-Doppler and multiparameter radars [1993, eng] **48-2466**

Conway, T.J.
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989 [1993, eng] **48-3900**

Cook, F.D.
Relation of nitrogen-fixing bacteria to arctic graminoid roots [1994, eng] **48-4378**

Cooke, L.W.
Petroleum potential of the Beaufort and Chukchi Seas [1993, eng] **48-788**

Cooke, W.G.
Field monitoring of frost-related sidewalk cracking [1994, eng] **48-3366**

Cooley, J.
Snow removal apparatus [1992, eng] **48-2238**

Cooley, K.R.
Groundwater response to mountain snowmelt [1993, eng] **48-2378**

Coon, M.D.
Phenomenological constitutive model for columnar ice [1993, eng] **48-4321**

Cooney, K.G.
Rotary tool for sharpening studs in snowmobile treads [1991, eng] **48-2230**

Cooper, A.K.
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations [1993, eng] **48-3291**

Cooper, D.J.
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain [1994, eng] **48-3506**

Cooper, L.W.
Application of oxygen-18 tracer techniques to arctic hydrological processes [1993, eng] **48-944**

Coote, D.R.
Erodibility of frozen soil in eastern Canada [1992, eng] **48-2366**

Corapcioglu, M.Y.
Simulation of hydrocarbon spills in permafrost [1993, eng] **48-367**

Corban, R.
X-ray investigation of supercooled water [1992, eng] **48-1896**

Corcoran, G.
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images [1994, eng] **48-3455**

Corr, H.
Impurity concentrations inferred from radio echo sounding [1991, eng] **48-10**

Corte, A.E.
Frost susceptibility of powdered calcium carbonate [1993, eng] **48-5198**
Geological processes and geocryogenic effects in the central Andes [1992, eng] **48-2010**

Cortemiglia, G.C.
Morphometry of limestone clasts belonging to slope debris and glacial deposits [1993, ita] **48-4099**

Cortez, E.R.
Low-temperature admixtures for concrete [1994, eng] **48-3354**

Costa, J.E.
Hazards in North American glacierized basins from global warming [1993, eng] **48-3557**

Costin, A.B.
Genesis of Australian alpine soils [1986, eng] **48-204**

Cote, P.W.
Ice limits—eastern Canadian seaboard [1989, eng] **48-2813**

Cotton, W.R.
Inclusion of ice growth processes in cloud models [1994, eng] **48-2511**

Coulmeau, P.
Erosion and transport processes on badlands slopes [1993, eng] **48-1849**

Coulombe, L.G.
High performance air entrained concrete for a bridge in Quebec [1993, eng] **48-2657**

Courty, M.A.
Properties of calcitic pendents from Spitsbergen [1994, eng] **48-3220**
Soil water chemistry during active layer refreezing [1993, fre] **48-970**

Cousins, J.D.
CEAREX ambient noise data measured northeast of Svalbard [1991, eng] **48-4740**

Coutard, J.P.
Modelling of gelifluction and frost creep [1993, eng] **48-2020**

Coutermarsh, B.A.
Experimental and numerical analysis of floating ice beam impact forces against a sloped structure [1994, eng] **48-5148**

Coutts, J.
North Slope Borough's experiences with incineration [1989, eng] **48-4136**

Couture, M.L.
Cracking of ice during rapid unloading [1994, eng] **48-2748**

Covert, D.S.
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard [1993, eng] **48-3912**

Cowan, C.
Impacts on the Yukon and the Mackenzie Valley [1992, eng] **48-2038**

Cowper, D.N.B.
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction [1993, eng] **48-3335**

Cox, B.
Ice: escape & evade [1990, eng] **48-1919**
Winter ground gremlins [1990, eng] **48-1920**

Cox, R.A.
Activation of stratospheric chlorine by reactions in liquid sulphuric acid [1994, eng] **48-5497**

Coxon, P.
Remnant periglacial landforms on an Irish plateau [1988, eng] **48-2564**

Cragin, J.H.
Aerosol scavenging by falling snow [1993, eng] **48-2958**
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms [1993, eng] **48-1006**

Craig, H.
Air clathrate hydrates in antarctic ice [1993, eng] **48-3943**
Gravitational separation in polar firn [and response] [1993, eng] **48-1902**

Craig, N.C.
Glycol concentration requirements for freeze burst protection [1993, eng] **48-2046**

AUTHOR INDEX

Crampton, C.B.
Landscape mapping in the Mackenzie River Valley [1975, eng] **48-3195**
Crandell, J.H.
Frost protected shallow foundations and freezing index climatography for residential construction [1994, eng] **48-3398**
Crane, D.
Below the tip of an iceberg [1993, eng] **48-5366**
Crane, K.
Pleistocene ice scoring in the Arctic Ocean [1994, eng] **48-4662**
Cravalho, E.G.
Model of diffusion-limited ice growth inside biological cells during freezing [1994, eng] **48-4282**
Crewell, S.
Aircraft measurements of ClO and HCl during EASOE 1991/92 [1994, eng] **48-5457**
Criado, A.
Vibration fluctuations in polycrystalline ice [1993, eng] **48-4027**
Crill, P.
Effect of lowered water table on nitrous oxide fluxes from northern peatlands [1993, eng] **48-1121**
Crispin, J.
Field study of two road sections during a freeze-thaw cycle [1992, eng] **48-2113**
Crissman, R.D.
Assessment of ice boom technology for application to the upper Niagara River [1994, eng] **48-5612**
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River [1994, eng] **48-5613**
Criteria for increased ice discharge capacity of the upper Niagara River [1994, eng] **48-5607**
Ice jamming processes in the upper Niagara River [1994, eng] **48-5606**
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] **48-2693**
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] **48-4323**
Physical model studies of measures to mitigate ice jamming in the upper Niagara River [1994, eng] **48-5609**
Physical model to study ice jamming processes in the upper Niagara River [1994, eng] **48-5608**
Studies of ice jamming in the upper Niagara River: introduction and background [1994, eng] **48-5605**
Uncertainties in flow modeling and forecasting for Niagara River [1993, eng] **48-1878**
Croasdale, K.R.
Climate change impacts on northern offshore petroleum operations [1992, eng] **48-2039**
Field tests for iceberg impact loading [1994, eng] **48-5556**
Ice forces: current practices [1989, eng] **48-4137**
Ice issues related to the Prince Edward Island Bridge [1994, eng] **48-5621**
Ice loads on multifaceted conical structures [1993, eng] **48-138**
Method for the calculation of sheet ice loads on sloping structures [1994, eng] **48-5626**
Pack ice driving forces inferred from MOLIKPAQ ice loads [1992, eng] **48-1556**
Size effect on pack ice driving forces [1992, eng] **48-1557**
Crock, J.G.
Element concentrations in vegetation to monitor air pollution [1993, eng] **48-797**
Crocker, E.J.
Post-yield buckling of stiffened panel structures [1994, eng] **48-4299**
Crocker, G.B.
Measurements of bergy bit and growler populations off Canada's east coast [1994, eng] **48-5554**
Physical processes in antarctic landfast sea ice [1988, eng] **48-3819**
Size distributions of bergy bits and growlers calved from deteriorating icebergs [1993, eng] **48-2738**
Croley, T.E., II
Computer animation of Great Lakes water temperature [1993, eng] **48-3937**
One-dimensional ice thermodynamics model for the Laurentian Great Lakes [1994, eng] **48-4450**
Cronin, T.M.
Quaternary paleoceanography of the Arctic Ocean [1994, eng] **48-5640**
Crook, A.
Snow-band formation during an aircraft accident [1993, eng] **48-2358**
Crory, F.C.
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska [1994, eng] **48-5409**
Crory, F.E.
Trans-Alaska Pipeline Research Program. Progress report 77-A [1976, eng] **48-3427**
Crowley, T.J.
Effect of decreased solar luminosity on Late Precambrian ice extent [1993, eng] **48-952**
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes [1988, eng] **48-1657**
Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange [1988, eng] **48-1658**
Crutzen, P.
Balloon-borne observations of arctic stratospheric ice particles [1994, eng] **48-5471**
Freezing of stratospheric aerosol droplets [1994, eng] **48-5499**
Crutzen, P.J.
Acidic stabilization of arctic stratospheric ice particles [1994, eng] **48-5472**
Chlorine activation during polar night [1993, eng] **48-3639**
Crux, J.A.
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic [1994, eng] **48-5638**
Csomor, M.
Local estimation of power line icing in Hungary [1993, eng] **48-810**
Observation of ice load of transmission line in Hungary [1993, eng] **48-824**
Observations on falling of ice from conductor of transmission line [1993, eng] **48-814**
Synoptic estimation of power line icing in Hungary [1993, eng] **48-809**
Wind speed effect on transmission line icing [1993, eng] **48-815**
Cubasch, U.
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model [1994, eng] **48-5368**
Cubillo, F.
Snowmelt assessment in a complex system of reservoirs (Comunidad de Madrid) [1990, eng] **48-1595**
Cucheran, J.
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. [1994, eng] **48-3384**
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. [1994, eng] **48-3381**
Cudlip, W.
Identification of subglacial lakes using ERS-1 radar altimeter [1993, eng] **48-3589**
Cuffey, K.M.
Isotopic paleothermometer calibration for Greenland ice cores [1994, eng] **48-5170**
Cui, G.X.
Preliminary study on freezing point in soil [1993, chi] **48-4496**
Preliminary study on the freezing point in soil [1993, eng] **48-5200**
Primary study on relationship between overburden pressure and freezing point of moist sand [1993, chi] **48-1430**
Cui, J.H.
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway [1993, eng] **48-368**
Maximum thaw depth in permafrost under black pavement [1993, chi] **48-4503**
Maximum thaw depth in permafrost under black pavement [1993, eng] **48-5201**
Cui, W.
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1) [1992, eng] **48-4010**
Cui, Z.J.
Environmental events on King George Island since the last glaciation [1992, eng] **48-80**
Frost physical weathering at the Great Wall Station [1992, eng] **48-79**
Frost weathering at the Great Wall Station [1992, eng] **48-77**
Gelifraction of periglacial mountain soils [1993, eng] **48-423**
Holocene periglacial processes in Inner Mongolia [1992, chi] **48-2012**
Mass movement in the Great Wall Station area, Antarctica [1992, eng] **48-78**
Mongolian periglacial phenomena [1993, eng] **48-369**
Periglacial mass movement in the head area of the Urumqi River [1993, eng] **48-5202**
Periglacial mass movement in the head area of Urumqi River [1993, chi] **48-4487**
Permafrost structure, King George I. [1993, eng] **48-1515**
Quaternary glaciations in the Altai Mountains of China [1992, chi] **48-2014**
Sorted circles in an empty cirque at the head of the Urumqi River [1993, eng] **48-5253**
Cullen, J.J.
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton [1992, eng] **48-5097**
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area [1994, eng] **48-4386**
Cummings, M.A.
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer [1994, eng] **48-3385**
Cummins, W.R.
Nitrogen uptake in arctic plants [1993, eng] **48-2374**
Cunningham, G.F.
Backscatter characteristics of the winter ice cover in the Beaufort Sea [1994, eng] **48-4055**
Cunningham, J.
Paleoclimatic implications of non-sea salt polar firn deposition [1993, eng] **48-3908**
Cunningham, P.
Transfer of offshore technology from the Arctic to the Antarctic [1993, eng] **48-4358**
Ćurić, M.
Convective cloud model predictive capabilities [1993, eng] **48-1743**
Numerical study of the cloud seeding effects [1990, eng] **48-2081**
Currie, D.H.
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems [1993, eng] **48-179**
Currier, P.M.
Remediation of petroleum contaminated soils through bioventing in cold regions [1993, eng] **48-2065**
Curry, J.A.
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere [1993, eng] **48-3899**
Curtin, T.B.
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction [1991, eng] **48-1480**
Curtis, D.C.
Measuring ice sheet changes with the ERS-1 altimeter [1994, eng] **48-3436**
Curtis, K.C.
Rapid deployment of camp facilities utilizing point-supported structures [1994, eng] **48-5364**
Cushman, J.H.
Toward a molecular scale understanding of frost heaving: phase I. Final report [1993, eng] **48-2699**
Czaplyski, V.
Aircraft icing prevention [1993, eng] **48-2880**
Czapski, P.
PC-based simulation code for radar polarimetric field applications in meteorology [1993, eng] **48-1682**
Czarnecki, B.
Admixture effects on sulphur concrete durability [1990, eng] **48-3063**
Czeczuga, B.
Carotenoids in West Greenland lichens [1993, eng] **48-2425**
Dabney, P.W.
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. [1993, eng] **48-1297**
Dadgar, A.
Cryoprotectant composition [1993, eng] **48-1281**
Cryoprotectant composition [1989, eng] **48-1276**
Dadone, L.
Rotorcraft aviation icing research requirements: research review and recommendations [1981, eng] **48-1145**
Daffern, T.
Avalanche safety for skiers & climbers [1992, eng] **48-1933**
D'Agostino, A.
Hundred year trends of Italian air temperature and snow accumulation [1993, ita] **48-4106**
Dahl, S.O.
Norwegian Holocene glacier fluctuations [1993, eng] **48-2566**
Dahl-Jensen, D.
Comments on "Paleothermometry by control methods" by MacAyeal and others [1993, eng] **48-2405**
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] **48-1899**
Ice sheet accumulation rates derived from ice core records [1993, eng] **48-4202**
Dahlback, A.
Effect of volcanic aerosols on Finnish ozone measurements [1994, eng] **48-5487**
Dahlgaard, H.
Where does all the Cs and Sr in Greenland waters come from [1993, eng] **48-4525**
Dahms, H.U.
Life in the cracks of antarctic sea ice [1993, eng] **48-1665**
Dai, C.T.
Permafrost vegetation in a Chinese forest [1993, eng] **48-370**
Dai, F.N.
Verification of extrusive volcanism in an ice core from King George I. [1993, chi] **48-1944**
Dai, H.M.
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions [1993, eng] **48-371**
On the minimum depth of bridge and culvert foundations in seasonal frost regions [1993, eng] **48-885**
Dai, R.Y.T.
Operational performance of the RV *Nathaniel B. Palmer* [1994, eng] **48-4308**
Daimaru, H.
Snow depth in forests with various openness grades of canopies [1993, jpn] **48-3180**
Snow type distribution in the coldest season in Japan [1993, jpn] **48-3181**
Daley, C.
Experiments of crushing interaction between ice floes [1993, eng] **48-4357**

Dallavalle, J.P.
Comments on "Snow versus rain: looking beyond the 'magic' numbers" [1993, eng] **48-2360**

Dallimore, S.R.
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf [1993, eng] **48-372**

Dalu, G.A.
Climatic atmospheric outflow at the rim of the Antarctic continent [1993, eng] **48-195**

Dalva, M.
Influence of temperature and water table on wetland emissions [1993, eng] **48-3785**

Daly, S.F.
Current issues in river ice forecasting [1993, eng] **48-686**
Fracture of river ice covers by river waves [1994, eng] **48-5546**
Frazil ice concentration meter [1992, eng] **48-1547**
Underwater frazil ice detector [1991, eng] **48-2221**
Wave propagation in ice-covered channels [1993, eng] **48-1242**

Damin, B.Y.
New diesel low temperature operability test—AGELFI filtration test [1994, eng] **48-3088**

Daniel, D.E.
Effects of freezing on hydraulic conductivity of compacted clay—discussion [1993, eng] **48-1785**

Danielewicz, B.
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems [1993, eng] **48-179**

Daniels, F.J.A.
Dry coastal ecosystems of Greenland [1993, eng] **48-1125**

Danielson, A.
Physical properties and structure of a single ice floe [1992, eng] **48-3769**

Danilenko, V.I.
Numerical modeling of the plane static deformation in ice cover [1993, eng] **48-4324**
Ship in compressive ice: preliminary model test results [1991, eng] **48-4891**

Danilov, I.D.
Cryogenic deformation in soils and their engineering geology consequence [1994, eng] **48-3400**
Permafrost evolution in Cenozoic Eurasia [1993, eng] **48-515**

Darby, M.S.
Greenland-Norwegian Sea ice-ocean thermodynamic model [1993, eng] **48-980**

Dare, P.H.
Wastewater sludge analysis with freeze concentration method [1993 aug] **48-973**

Darling, M.
Improving winter pavement performance [1993, eng] **48-2328**

Darling, M.N.
Ice observations in the western Weddell Sea [1992, eng] **48-3772**
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2 [1992, eng] **48-3770**

D'Arrigo, R.D.
Influence of atmospheric carbon dioxide on tree line extent [1993, eng] **48-1115**

Das, D.K.
Thermal modeling of ice cores and boreholes via the finite element technique [1994, eng] **48-5353**

Dash, J.G.
Mechanism of charge transfer between colliding ice particles in thunderstorms [1994, eng] **48-4852**
Physics of liquid water in frozen powders and soils [1993, eng] **48-5209**

Datcu, M.
Correction of radiometric distortions in snow cover imagery [1993, eng] **48-1685**

D'Atri, B.
Burning of diesel oil spill [1993, eng] **48-3719**

Davey, F.J.
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report [1992, eng] **48-2319**
Management plan for the Cape Roberts Project [1992, eng] **48-2324**

Davey, M.C.
Microalgae distribution on Signy I. [1993, eng] **48-1359**

Davey, R.
All about ice [1993, eng] **48-2759**

David, F.
Paleobotanical variations in response to alpine climate change [1993, eng] **48-4283**

David, P.P.
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada [1993, eng] **48-2206**

Davidson, B.
Hydrocarbon exclusion from ground water during freezing [1993, eng] **48-1241**

Davidson, C.I.
Dye 3 air and snow chemistry, pt.1 [1993, eng] **48-3885**
Dye 3 air and snow chemistry, pt.2 [1993, eng] **48-3886**
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview [1993, eng] **48-3884**
Size distributions of atmospheric trace elements at Dye 3, pt.2 [1993, eng] **48-3893**
Sources influencing Greenland ice sheet composition during AGASP [1993, eng] **48-3887**
Sulfate and MSA in the air and snow on the Greenland Ice Sheet [1994, eng] **48-4599**

Davidson, K.
Development of stone mastic asphalt mixes for Ontario use [1993, eng] **48-5086**

Davies, T.D.
Episodic acidification of freshwater systems in Canada [1994, eng] **48-3621**
Geochemical analysis of snow samples [1993, eng] **48-2047**
Snow-atmosphere interactions in arctic snowpacks [1993, eng] **48-2952**

Davies, T.R.
Erosion, debris flows and environment in mountain regions [1992, eng] **48-4405**

Davis, C.H.
Accumulation rates of polar snow on antarctic ice sheets [1993, eng] **48-1684**
Combined surface- and volume-scattering model for ice-sheet radar altimetry [1993, eng] **48-3594**
Depth of penetration in antarctic firn at 10 GHz [1993, eng] **48-2110**
Ice sheet surface variations derived from radar altimetry [1993, eng] **48-3595**
Ice sheet volume changes derived from satellite altimetry [1993, eng] **48-1226**
Satellite radar altimetry over the continental ice sheets [1992, eng] **48-806**
Subsurface scattering and ice sheet altimetry [1993, eng] **48-1709**

Davis, D.T.
Retrieval of snow parameters by iterative inversion of a neural network [1993, eng] **48-1228**

Davis, D.W.
Hydrologic modelling of flooding and runoff [1993, eng] **48-680**

Davis, F.W.
Modeling *L*-band radar backscatter of Alaskan boreal forest [1993, eng] **48-2150**

Davis, G.
Role of pit membrane structure in deep supercooling of xylem parenchyma [1993, eng] **48-1258**

Davis, J.
Three approaches to winter traction testing using instrumented vehicles [1994, eng] **48-3105**
Winter traction testing using three different instrumented vehicles [1993, eng] **48-757**

Davis, R.E.
Dry snow parameter stereology for microwave modeling [1993, eng] **48-1338**
Estimating total snow volume in a small alpine watershed [1993, eng] **48-2945**
Multifrequency and polarimetric SAR observations on alpine glaciers [1993, eng] **48-1306**
Predicting snow cover infrared spectral signature [1993, eng] **48-1313**
Snowmelt runoff forecasting [1993, eng] **48-685**

Davison, R.W.
Summer snow patches and climate in northeast Scotland, U.K. [1994, eng] **48-4373**

Davydov, V.A.
Construction of highways and airports on permafrost [1993, rus] **48-1523**

Davydova, N.D.
Method of ecological normalization of technogenic stresses [1990, rus] **48-2074**

Dawson, R.F.
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape [1994, eng] **48-3391**

Day, G.N.
Estimating snow water equivalent using a GIS [1993, eng] **48-684**
Gridded snow water equivalent estimation using ground-based and airborne snow data [1993, eng] **48-2930**

Day, J.L.
Modeling *L*-band radar backscatter of Alaskan boreal forest [1993, eng] **48-2150**

Day, R.I.
New guidelines for cold weather concreting [1993, eng] **48-3759**

Dayer, G.
Glaciology and hydroelectric production in Switzerland [1993, fre] **48-4097**

De Angelis, M.
Origins and variations of fluoride in Greenland precipitation [1994, eng] **48-4598**

De Baar, H.
Phytoplankton ice-edge blooms in the northwestern Weddell Sea [1993, eng] **48-596**

De Grosbois, T.
Shrub growth responses in a clear cut subarctic landscape [1993, eng] **48-2660**

De Lange, T.
Air-ice interaction [1992, eng] **48-2899**

De Margerie, S.
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay [1989, fre] **48-3432**

De Mazière, M.
Stratospheric chemistry over the Swiss Alps [1994, eng] **48-5485**

De Molenaar, J.G.
Dry coastal ecosystems of Greenland [1993, eng] **48-1125**

De Mora, S.J.
McMurdo Ice Shelf meltwater chemistry [1994, eng] **48-3038**

De Scally, F.A.
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins [1993, eng] **48-2947**

De Schoulepnikoff, L.
Lidar measurements of simulated polar stratospheric clouds [1993, eng] **48-2987**

De Smet, W.H.
Freshwater tardigrades from Devon I., Canada [1992, eng] **48-3608**

De Veaux, R.D.
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines [1993, eng] **48-2244**

De Vernal, A.
Quaternary sea ice extent from dinoflagellate cyst assemblages [1993, eng] **48-4207**

De Witt, K.J.
Development of an improved model for runback water on aircraft surfaces [1994, eng] **48-4063**
Efficient finite element method for aircraft deicing problems [1993, eng] **48-1371**

De Zafra, R.L.
Nitrous oxide as an indicator of arctic vortex dynamics [1994, eng] **48-5459**
Spectroscopy of chlorine monoxide in the Greenland atmosphere [1994, eng] **48-5458**

Dean, K.G.
Influence of the hydrologic cycle on the extent of sea ice with climatic implications [1993, eng] **48-319**

DeArmon, J.M.
Ice thickness measurement system for the Icing Research Tunnel calibration [1993, eng] **48-4889**

DeBlonde, G.
Climatic implications of Pleistocene ice volume fluctuations [1991, eng] **48-5319**

Decato, S.
Experimental method for vehicle mobility research on freezing/thawing soil [1993, eng] **48-1163**

Decker, R.
Computer applications for avalanche forecasting in the United States [1993, eng] **48-2826**

Declair, H.
Ice dynamics in the Sør Rondane Mountains [1993, eng] **48-2141**
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica [1993, eng] **48-1298**

Dedieu, J.P.
Satellite remote sensing of snow and glacier inputs to river flow [1990, fre] **48-1577**

Deep freeze causes havoc
Deep freeze causes havoc [1994, eng] **48-2884**

DeFrain, L.E., Jr.
Seasonal changes in the longitudinal profile of pavements subject to frost action [1992, eng] **48-2116**

DeFranco, S.J.
Influence of specimen geometry on the fracture toughness of freshwater ice [1994, eng] **48-3969**
Method for determining the anisotropic fracture toughness of ice [1993, eng] **48-97**
Nonlinear fracture analysis of saline ice: size, rate, temperature effects [1992, eng] **48-1553**
Splitting of ice floes [1993, eng] **48-88**
Tensile fracture of saline ice [1993, eng] **48-3533**

Dekhtiar, M.B.
Interaction of hovercraft icebreaker platforms with ice cover [1994, eng] **48-3952**

Del Grande, N.K.
Dual-band infrared imaging for mapping sea ice [1992, eng] **48-4760**

Del Guasta, M.
Lidar observation of cirrus at the base of the stratosphere [1994, eng] **48-5474**

Del Valle, H.F.
Cryogenic structures in Patagonia [1994, eng] **48-4827**

Delage, M.
Relict iceberg marks near Montreal, Quebec [1993, fre] **48-1147**

Delagrave, A.
Freeze-thaw durability of roller-compacted concrete made with Rolad binder [1994, fre] **48-5143**

Delaney, A.J.
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska [1993, eng] **48-2064**

Delisle, G.
Global change, antarctic meteorite traps and the East Antarctic ice sheet [1993, eng] **48-2402**

Delmas, R.J.
Firn-core study from the southern Patagonia ice cap, South America [1993, eng] **48-2388**
Ice core drilling on Mont Blanc [1994, eng] **48-2713**
Ice records of the past environment [1994, eng] **48-5308**
Natural artefact in Greenland ice-core CO_2 measurements [1993, eng] **48-1379**

AUTHOR INDEX

DeLuca, T.H.
Effect of freeze-thaw events on mineralization of soil nitrogen [1992, eng] **48-3412**

Delwaide, A.
Growth of black spruce at its northern range limit in arctic Quebec, Canada [1994, eng] **48-4377**
Stem analysis of a long-lived black spruce clone at treeline [1994, eng] **48-3508**

Delzeit, L.
Infrared spectra of HCl-ice surfaces at cryogenic temperatures [1993, eng] **48-1673**

Dem'ianchenko, Z.A.
Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers [1993, eng] **48-4523**

Demidov, V.V.
Seasonal soil freezing and hydrological processes on slopes [1993, eng] **48-2295**

Deminov, I.G.
Photochemical mechanism of the spring anomaly in the stratospheric ozone in Antarctica [1993, rus] **48-2492**

Demkina, T.
Soil biological activity and transformation of organic matter during winter [1993, eng] **48-2307**

Demmel, J.
Icing relevant parameters from sounding of stratiform clouds [1990, ger] **48-4862**

DeMott, P.J.
Inclusion of ice growth processes in cloud models [1994, eng] **48-2511**

Demoz, B.B.
Ice crystal detection in Sierra Nevada orographic storms [1993, eng] **48-2368**

Dempsey, J.P.
Influence of specimen geometry on the fracture toughness of freshwater ice [1994, eng] **48-3969**
Method for determining the anisotropic fracture toughness of ice [1993, eng] **48-97**
Motion of non-basal dislocations in ice crystals [1994, eng] **48-2749**
Nonlinear fracture analysis of saline ice: size, rate, temperature effects [1992, eng] **48-1553**
Splitting of ice floes [1993, eng] **48-88**
Stress-optic effect in ice [1994, eng] **48-4448**

Demuth, C.
Sea ice and circulation in the Weddell Sea [1993, eng] **48-2142**

Demuth, M.N.
Proposed artificial river ice damming to induce flooding of a delta ecosystem [1993, eng] **48-2961**
Strength variability of major river-ice types [1993, eng] **48-1156**

Den Hartog, G.
Tower-based measurements of CO_2 wetland fluxes [1994, eng] **48-4609**
Wetland energy budget measurements using Bowen ratio techniques [1994, eng] **48-4610**

Deng, Y.
Groundwater response to mountain snowmelt [1993, eng] **48-2378**

Deng, Y.S.
Analysis of the second phase transition of sodium chloride solution in freezing soil [1993, eng] **48-497**
Application of chromatograph in the study of frozen soils [1993, chi] **48-1457**
Changing characteristics of hydraulic diffusivity of unsaturated soil [1992, chi] **48-1412**
Deaerator use in soil tests [1993, chi] **48-1458**
Primary study on composition of methane hydrate [1993, eng] **48-373**
Primary study on composition of methane hydrate [1992, chi] **48-1421**
Second order phase change in saline freezing soil [1992, chi] **48-1411**
Unfrozen water content and freeze-thaw in saline soil [1993, chi] **48-1434**
Water and solute migration of freezing soils in closed system under temperature gradients [1992, eng] **48-1403**

DenHartog, S.L.
Delivery of fuel and construction materials to South Pole Station [1993, eng] **48-1001**
Thermosyphon condensate return device [1990, eng] **48-2261**

Denmark. Kommissionen for Videnskabelige Undersøgelser i Grønland (Commission for Scientific Research in Greenland)
Polar research. Strategy and action plan 1993-1997 [1992, dan] **48-5271**

Dent, J.D.
Electrostatic effects on saltating snow particles [1993, eng] **48-2859**
Friction characteristics of granular snow avalanches [1993, eng] **48-2856**
Model of turbulent flow with drifting snow [1993, eng] **48-2867**

Dentice d'Accadia, M.
Gas engine driven heat pump: an excellent alternative in cold climate [1994, eng] **48-3853**

Denton, G.H.
Minor expansion of alpine glaciers in Wright Valley, Antarctica [1992, eng] **48-2625**
Younger Dryas Age advance of Franz Josef Glacier [1994, eng] **48-4926**

Déqué, M.
GCM study of the late January 1991 "mini-hole" event observed during EASOE [1994, eng] **48-5502**

Dereniwski, T.
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape [1994, eng] **48-3391**

Dereviagin, A.IU.
Ecological-geological regionalization of the cryolithozone in the USSR [1993, eng] **48-2540**

Deriaguin, B.V.
On the slip of solids on ice [1994, eng] **48-4955**

Derr, V.E.
Solar radiation attenuation by ice content of stratus clouds [1989, eng] **48-1472**

Derradji-Aoust, A.
Ice forces on conical piers—numerical and development of design equations [1994, eng] **48-3364**
Ice loads on conical piers—a finite element investigation [1994, eng] **48-4265**
Practical elastic moduli for polycrystalline ice [1994, eng] **48-3014**

Derriche, O.
Dielectric properties of supercooled water/alcohol solutions [1990, eng] **48-5024**

Derrien, M.
Automatic cloud detection applied to NOAA-11/AVHRR imagery [1993, eng] **48-3229**

Dershowitz, A.L.
Experimental investigation of passive infrared ice detection for helicopter applications [1991, eng] **48-4871**
Passive infrared ice detection technique for helicopter applications [1991, eng] **48-1959**

Deser, C.
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989 [1993, eng] **48-1023**

Deshler, T.
Acidic stabilization of arctic stratospheric ice particles [1994, eng] **48-5472**
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols [1994, eng] **48-4014**
Balloon-borne observations of arctic stratospheric ice particles [1994, eng] **48-5471**
Cloud response to two forms of airborne seeding [1990, eng] **48-3077**
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992 [1994, eng] **48-4013**
Volcanic ash aerosols measured over Kiruna, Sweden [1994, eng] **48-5470**

Desiatkin, R.V.
Problems in the rational use of alassy [1988, rus] **48-910**
Syngenetic soil salinization during thermokarst alas formation [1993, eng] **48-2318**

Desjardins, R.L.
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland [1994, eng] **48-4611**

Desloges, J.R.
Varve deposition in three small Canadian mountain lakes [1994, eng] **48-4372**

Desponts, M.
Holocene dynamics of jack pine at its northern range limit in Quebec [1993, eng] **48-2765**

Desrochers, A.
Carboniferous calcretes in the Canadian Arctic [1993, eng] **48-1937**

DesRochers, C.G.
Post-yield buckling of stiffened panel structures [1994, eng] **48-4299**

Dessler, A.E.
Volcano aerosols in the Greenland atmosphere [1993, eng] **48-2581**

Dethleff, D.
Contrasts in arctic shelf sea ice regimes [1994, eng] **48-5634**

Detwiler, A.
Comment and reply on paper by Tinsley et al [1993, eng] **48-955**

Devarennes, G.
Artificial snow and the effect of snowmelt on trees [1993, fre] **48-2922**

Dever, L.
Soil water chemistry during active layer refreezing [1993, fre] **48-970**

Deviatkin, V.N.
Geothermal regime of cryolithozone of West Siberia [1993, eng] **48-374**

Devito, K.J.
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond [1993, eng] **48-3007**

Devlin, J.P.
Ice film defects derived from isotopic exchange rates [1991, eng] **48-946**
Infrared spectra of HCl-ice surfaces at cryogenic temperatures [1993, eng] **48-1673**
Spectra of isotopic ice mixtures [1993, eng] **48-213**

DeVries, A.L.
Release of an ice-active substance by antarctic sea ice diatoms [1994, eng] **48-3043**

Dewey, K.F.
Global snow cover monitoring: an update [1993, eng] **48-1101**
Southern Hemisphere snow cover climatology [1993, eng] **48-1799**

Dewey, R.K.
1990 Endicott Environmental Monitoring Program. Final report [1994, eng] **48-3523**

Dewez, V.
Pleistocene sedimentology of Yukon glacial Lake Nisling [1993, fre] **48-1148**

Deynoux, M.
Earth's glacial record [1994, eng] **48-5037**

Dhargalkar, V.K.
Production of organic matter in antarctic sea shelf [1992, eng] **48-1525**

Dhindsa, R.S.
Cold-induced changes in plant freezing tolerance [1993, eng] **48-1758**

Di Bartolomeo, W.
Ice certification of the Dornier 328 regional airliner [1991, eng] **48-3693**

Di Girolamo, P.
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland [1994, eng] **48-5464**

Diab, R.B.
Trends in total ozone over southern African stations between 1979 and 1991 [1993, eng] **48-4390**

D'iachkovskii, V.V.
Developing means of controlling weeds in meadow agrophytocenoses [1988, rus] **48-915**

D'iakonov, K.N.
Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera [1993, rus] **48-3740**

Diament, A.D.
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic [1994, eng] **48-3485**

Dismond, L.W.
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability [1994, eng] **48-2634**

Diard, J.L.
Ski having a variable width upper surface [1990, eng] **48-2260**
Ski having a variable width upper surface [1990, eng] **48-2265**

Díaz, D.P.
Valley air temperature during frosting conditions [1993, eng] **48-2203**

Diaz, H.F.
Recent changes in arctic temperature inversions [1993, eng] **48-1469**

Dibb, J.E.
Ice core indications of Northern Hemisphere methane variations [1993, eng] **48-3254**
Radionuclide presence in snow and aerosols during AGASP [1993, eng] **48-3888**
Stratospheric input to the arctic troposphere [1994, eng] **48-4698**
Sulfate and MSA in the air and snow on the Greenland Ice Sheet [1994, eng] **48-4599**

Dick, R.A.
Arctic survival equipment testing and analysis [1992, eng] **48-5105**
Empirical review of the design and performance of icebreakers [1989, eng] **48-3747**
Personal Arctic Survival Kit (PASK) field trials [1992, eng] **48-5104**

Dickinson, B.B.
Performance of a water retaining dyke on a discontinuous permafrost foundation [1994, eng] **48-3397**

Dickman, M.
Planktonic primary productivity in an Icelandic lake [1993, eng] **48-942**

Dickson, R.H.J.
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983 [1986, eng] **48-3044**

Dickson, S.M.
Sea level change and Quaternary sediments off Maine [1992, eng] **48-1925**

Diemand, D.
Clearing ice for bridging operations [1994, eng] **48-5425**
Operability: the first step to mobility [1993, eng] **48-1166**
Unmanned vehicle system mobility in cold regions [1994, eng] **48-5416**

Diemer, M.
Alpine plant photosynthesis under elevated CO_2 [1994, eng] **48-5382**
Alpine seed bank size estimations in subarctic ecosystems [1993, eng] **48-937**

Diener, C.J.
Promoting late-fall establishment of tall fescue with soil covers [1993, eng] **48-3490**

Dierking, W.
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992 [1993, eng] **48-1690**

Difrancesco, R.
Impact of climate change on Canadian transportation [1993, eng] **48-599**
Diloia, A.A.
Heated windshield wiper blade and holder [1989, eng] **48-1873**
Dilger, W.H.
Insulation of buried water lines in cold regions [1994, eng] **48-3378**
Dillard, K.
Arctic sciences program research summaries, 1992 [1993, eng] **48-1463**
Dilley, J.P.
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence [1993, eng] **48-2380**
Dillon, P.J.
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond [1993, eng] **48-3007**
DiMarzio, J.
Ice sheet topography from retracked ERS-1 altimetry [1994, eng] **48-3441**
Dimitrov, D.
Snowmelt flood modelling of a Bulgarian river basin [1992, bul] **48-2153**
Dimov, L.A.
Problems in designing pipelines for northern Russia [1993, rus] **48-743**
Ding, J.K.
Application of thermalpile to culvert engineering in permafrost region [1993, eng] **48-375**
Long-term shear strength at frozen/unfrozen transition zone [1992, chi] **48-1407**
Long-term shear strength of frost-thaw transit zone [1993, eng] **48-5203**
Long-term shear strength of frost-thaw transition zone [1993, chi] **48-4492**
Ding, Y.Q.
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride [1993, eng] **48-376**
Dings, J.
Small angle x-ray scattering in the early stages of ice formation [1991, eng] **48-3754**
Dionne, J.C.
Ice rafting dynamics on the St. Lawrence estuary [1993, eng] **48-932**
Diunin, A.K.
Influence of the wind on snow-cover [1990, eng] **48-3071**
Diurgerov, M.B.
Monitoring the mass balance of mountain glaciers [1993, rus] **48-1909**
Dixon, J.
Cold start fueling strategy for spark ignition engines [1994, eng] **48-3091**
Improving the cold start of spark ignition engines [1994, eng] **48-3090**
Use of vehicle drive cycles to assess spark plug fouling performance [1994, eng] **48-3102**
Djupström, M.
Contamination of arctic air at three sites during a haze event in later winter 1986 [1993, eng] **48-3913**
Dmitriev, N.E.
Ice conditions [1992, eng] **48-2909**
Dmitriev, V.P.
Theory of ice structures [1993, eng] **48-931**
Doake, C.S.M.
Antarctic Peninsula contribution to future sea level rise [1993, eng] **48-1565**
ERS-1 SAR: stress indicator for antarctic ice streams [1994, eng] **48-3445**
Gravimetric tidal measurements on Filchner Ronne Ice Shelf [1992, eng] **48-240**
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica [1993, eng] **48-1325**
Thematic maps of Filchner-Ronne Ice Shelf [1991, eng] **48-3**
Use of visible satellite imagery over ice sheets [1992, eng] **48-917**
Dobson, J.E.
NOAA coastal land cover classification system [1993, eng] **48-1097**
Doherty, K.
Ice-Ocean Environmental Buoys deployment in 1991-92 [1993, eng] **48-3752**
Dolgin, M.I.
Features of the variations in total ozone over the North Atlantic in summer [1993, rus] **48-2489**
Dolgopolova, E.N.
Investigation of turbulent underice flows [1994, eng] **48-5544**
Dolmatov, V.IU.
Cyclohexyl nitrate fuel additive for cold starting [1992, eng] **48-5510**
Domack, E.W.
Sedimentation dynamics within antarctic fjords [1993, eng] **48-1826**
Domaschuk, L.
Creep effects on a laterally loaded pile [1993, eng] **48-377**
Dominé, F.
Diffusion and solubility of HCl in ice: preliminary results [1994, eng] **48-4697**
Domonkos, P.
Synoptic estimation of power line icing in Hungary [1993, eng] **48-809**
Donald, J.R.
Modeling of snowmelt runoff in Ontario from SAR data [1993, eng] **48-2969**
Donaldson, N.R.
Trajectory influence on winter storm precipitation type [1993, eng] **48-1744**
Dong, Y.Y.
Role of ice crystals in cirrus radiative properties [1994, eng] **48-4600**
Dong, Z.Q.
Sea ice, polynyas and glacier ice and the formation of water masses [1993, chi] **48-1943**
Donner, L.J.
Evaluation of a GCM cirrus parameterization using satellite observations [1994, eng] **48-5028**
Doran, P.T.
Sedimentology of Colour Lake, N.W.T., Canada [1993, eng] **48-2420**
Dormling, I.
Frost hardiness in pine seedlings [1993, eng] **48-1260**
Dorokhov, V.M.
Results of total ozone measurements over Heiss Island in winter, 1989 [1993, rus] **48-2487**
Doronin, IU.P.
Simulation of estuary hydrology [1992, eng] **48-1766**
Doronin, N.IU.
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin [1992, eng] **48-2904**
Dosch, H.
Ice surface melting revealed by X-ray scattering [1994, eng] **48-4807**
Douglas, K.
Disposing of de-icing chemical runoff at airports [1993, eng] **48-2758**
Douglas, M.S.V.
Freshwater diatoms from high arctic ponds [1993, eng] **48-2697**
Microfossils in a High Arctic peat deposit [1994, eng] **48-5126**
Douglass, A.
Simulation of North Polar atmospheric chemistry [1993, eng] **48-628**
Doulis, A.G.
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.) [1993, eng] **48-4284**
Dowdeswell, J.A.
Cloud cover constraints on satellite sensing of polar ice sheets [1993, eng] **48-1308**
Dynamic former ice sheets [1990, eng] **48-1502**
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic [1994, eng] **48-3485**
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic [1994, eng] **48-3511**
Glaciological remote sensing performance of Russian satellite camera [1993, eng] **48-1307**
Ice-rafted diamictons in East Greenland fiords [1994, eng] **48-3814**
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice [1994, eng] **48-5040**
Dozier, J.
Deriving snow liquid water content using C-band polarimetric SAR [1993, eng] **48-1705**
Dry snow parameter stereology for microwave modeling [1993, eng] **48-1338**
Improving methods for measurement and estimation of snow storage in alpine watersheds [1990, eng] **48-1578**
Mapping alpine snow using a spectral mixture modeling technique [1993, eng] **48-1309**
Measurements of snow- and glacier-covered areas with single- polarization SAR [1993, eng] **48-1302**
Modeling and observation of polarimetric SAR response to dry snow [1993, eng] **48-1706**
Predicting snow cover infrared spectral signature [1993, eng] **48-1313**
Snow mapping in alpine regions with synthetic aperture radar [1994, eng] **48-5136**
Snow wetness retrieval algorithm for SAR [1992, eng] **48-3284**
Spectral reflectance of thin snow [1991, eng] **48-3712**
Drage, R.G.T.
Icing studies in an aerospace altitude test facility [1991, eng] **48-4736**
Dramis, F.
Permafrost distribution in the Italian mountains [1993, eng] **48-356**
Slope-waste deposits in the Italian Apennines [1988, eng] **48-2562**
Drapeau, J.F.
AC flashover performance of ice-coated post insulators [1993, eng] **48-851**
Ice accumulation characteristics on Hydro-Quebec HV insulators [1993, eng] **48-846**
Dray, M.
Chemical composition of snow cover on the western Swiss Alps [1990, eng] **48-1594**
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps [1990, fre] **48-1591**
Drdla, K.
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols [1993, eng] **48-3730**
Dredge, L.A.
Glaciotectonic structures in eastern and arctic Canada [1993, eng] **48-3121**
Dreiseitl, E.
On the calculation of ice ablation [1977, ger] **48-3312**
Proceedings [1986, eng] **48-608**
Dreschhoff, G.A.M.
Solar flares in antarctic ice cores [1993, eng] **48-3940**
Drew, D.A.
Mechanism for preventing snow from sliding off roofs [1993, eng] **48-4415**
Dreyer, N.N.
World Atlas of Snow and Ice Resources compiled in the Soviet Union [1978 eng] **48-2984**
Drinkwater, M.R.
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992 [1993, eng] **48-1690**
Seasat A scatterometer observations of Greenland ice sheet surface [1994, eng] **48-5159**
Dronov, B.F.
Multipurpose underwater transport ship outfitted for the Arctic [1992, rus] **48-748**
Dronov, V.G.
Multipurpose snow-handling machine [1993, rus] **48-745**
Drozdov, V.A.
Heat transfer in translucent enclosed structures [1986, rus] **48-1288**
Druez, J.
Comparison of selected models for estimating cable icing [1993, eng] **48-816**
Field data on transmission line icing collected at the Mount Valin test site [1994, eng] **48-3020**
Druivenga, G.
Radar ice thickness measurements in north Victoria Land [1993, eng] **48-2708**
Druzhkov, N.V.
Seasonal succession of microphytoplankton in the coastal zone of East Murman [1991, rus] **48-2530**
Seasonal succession of zooplankton in the coastal zone of Eastern Murman [1991, rus] **48-2532**
Du, Y.
Numerical simulation of West Antarctic katabatic winds [1994, eng] **48-5309**
Dubikov, G.I.
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia [1994, eng] **48-3407**
Dubina, M.M.
Stress-strain state of frozen rocks at their thawing around excavations [1993, eng] **48-516**
Dubois, J.D.
Chemical composition of snow cover on the western Swiss Alps [1990, eng] **48-1594**
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps [1990, fre] **48-1591**
Dubreuil, M.-A.
New permafrost and ground ice map for the National Atlas of Canada [1993, eng] **48-396**
Dubrovich, N.A.
Investigation of crystallization of charged, supercooled water fog [1993, eng] **48-71**
Duce, S.W.
Effect of soil freezing on particulate resuspension [1988, eng] **48-3919**
Duchkov, A.D.
Geothermal regime of cryolithozone of West Siberia [1993, eng] **48-374**
Duda, J.
Liverworts of Chukotka [1993, rus] **48-1641**
Dudley, M.
Dislocation/grain boundary interactions in ice Ih under creep conditions [1994, eng] **48-5587**
In-situ synchrotron x-ray topographic studies of polycrystalline ice [1994, en] **48-5579**
Dufford, R.
Phytoplankton population dynamics in Lake Fryxell [1994, eng] **48-4813**
Duguay, C.R.
Radiometric modelling of alpine snow cover radiation balance [1993, eng] **48-1337**
Dumas, B.
Stone trails on unstable slopes [1993, eng] **48-1848**
Dumas, P.A.R.
Gravity base structure for an offshore platform in arctic regions [1990, eng] **48-2175**
Dumik, V.P.
Criteria of radiation and seismic safety of underground nuclear tests [1993, eng] **48-4547**
Ecological safety problems connected at North Range (Island of Novaja Zemlja) [1993, eng] **48-4561**
Nevada—Novaya Zemlya [1992, rus] **48-1268**
Dunbar, M.
Sea ice and climatic change in the Canadian Arctic since 1800 [1985, eng] **48-2721**

Dunbar, R.B.
Sea ice and open-water plankton carbon isotopic composition [1992, eng] **48-3767**

Duncan, C.N.
Mesoscale vortex over Halley Station, Antarctica [1993, eng] **48-1834**

Dungey, C.E.
Radar backscattering from ice crystals [1993, eng] **48-2595**

Dunlap, W.C.
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna* [1992, eng] **48-5096**

Dunn, R.C.
Condensed phase dynamics of OClO [1993, eng] **48-1025**

Duong, T.
Heat recovery ventilator operating under frost conditions [1993, eng] **48-870**

Duplessy, J.C.
North Atlantic sea surface salinity, ice melting and abrupt climatic changes [1993, eng] **48-4208**

Dupuis, H.
Temperature differences in the Restigouche estuary during the ice-covered season [1994, eng] **48-3360**

Dupuy-Philon, J.
Glassy state formation of aqueous solutions [1994, eng] **48-5384**

Duquennoi, C.
Model for water transport and ice lensing in freezing soils [1993, eng] **48-2430**

Durand, B.
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete [1993, eng] **48-1471**

Durand, S.J.
Alaska Energy Authority PV-diesel hybrid assessment and design program [1991, eng] **48-4757**

Durand, Y.
Meteorological estimation of relevant parameters for snow models [1993, eng] **48-2829**
Sensitivity of the French Alps snow cover to the variation of climatic variables [1994, eng] **48-5418**

Durbin, P.F.
Dual-band infrared imaging for mapping sea ice [1992, eng] **48-4760**

Durham, W.B.
Flow of ices in the ammonia-water system [1993, eng] **48-923**

Dutta, P.K.
Applications of recycled plastics for roadside safety hardware [1994, eng] **48-3268**
Behavior of fiber-reinforced plastics as construction materials in extreme environments [1993, eng] **48-4362**
Composites for roadside hardware [1993, eng] **48-2094**
Compressive failure of polycrystalline ice under impact [1993, eng] **48-4325**
Dynamic tensile strength of glass fiber reinforced pultruded composites [1994, eng] **48-3267**
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites [1994, eng] **48-5150**
Flexural fatigue and fracture of unidirectional graphite/epoxy composites at low temperatures [1993, eng] **48-2062**
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures [1993, eng] **48-2536**
Influence of low temperature on energy absorption in laminated composites [1993, eng] **48-2061**
New and recycled plastic composites for roadside safety hardware [1993, eng] **48-2093**
Stress waves through graphite/epoxy laminated plates [1993, eng] **48-2063**

Dutto, F.
Glacial hazards in the Italian Alps [1993, ita] **48-4100**

Dutton, E.G.
Arctic stratospheric aerosols following Mt. Pinatubo eruptions [1993, eng] **48-2327**
Long-term decrease in arctic haze at Barrow, Alaska [1993, eng] **48-949**

Duval, B.
Snow algae and other microbes in several alpine areas in New England [1993, eng] **48-2941**

Duwe, K.C.
Marine information systems as key-tools in port and ocean engineering in polar regions [1993, eng] **48-161**

Duynkerke, P.G.
Katabatic flow over glacier and tundra during GIMEX-91 [1994, eng] **48-3513**
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91 [1994, eng] **48-3512**

Dvoiris, A.D.
Low-temperature gas pipelines [1980, rus] **48-2614**

Dyck, W.
Review of footwear for cold/wet scenarios. Part I: the boot [1992, eng] **48-4750**

Dydyshko, P.I.
Deformed embankments on mari and the ways of their stabilization [1993, eng] **48-378**

Dyer, R.
Adsorption of long-lived radionuclides on sediment from the Kara Sea [1993, eng] **48-4564**

Dyke, A.S.
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation [1993, eng] **48-1248**
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada [1993, eng] **48-694**

Dyrness, C.T.
Alkaline soil chemistry on the Tanana River floodplain [1993, eng] **48-641**
Control of soil development on the Tanana River floodplain, interior Alaska [1993, eng] **48-643**
Effects of saline soils on Tanana River floodplain revegetation [1993, eng] **48-650**
Floodplain ecosystems of the Tanana River, AK [1993, eng] **48-638**
Floodplain surface soil chemistry along the Tanana River [1993, eng] **48-647**
Soil nitrification in forest floodplain ecosystems, Tanana River [1993, eng] **48-646**
Tanana River floodplain soil chemistry [1993, eng] **48-640**

Eade, D.
Cold start fueling strategy for spark ignition engines [1994, eng] **48-3091**
Improving the cold start of spark ignition engines [1994, eng] **48-3090**

Eadie, B.J.
Ice algae primary productivity in the high arctic [1993, eng] **48-85**

Earle, C.J.
Long-term Kolyma air temperature variations from tree rings [1994, eng] **48-3509**

Easterbrook, D.J.
Thermoluminescence dating of Quaternary sediments [1993, eng] **48-3129**

Easterling, D.R.
Snowfall trends over the U.S. and Canada [1994, eng] **48-2892**

Eastern Snow Conference and Western Snow Conference
Joint 50th Eastern and 61st Western Snow Conference, 1993 [1993, eng] **48-2920**

Easthouse, K.B.
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington [1993, eng] **48-3556**

Eaton, R.A.
Heavy weight deflectometer results from an unsurfaced road containing rubber layers [1994, eng] **48-4914**
Tire chips as subgrade insulation—field trial [1993, eng] **48-1840**

Ebersole, J.J.
Effects of added water on an alpine forb [1994, eng] **48-3504**

Echelmeyer, K.A.
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica [1993, eng] **48-3572**

Ecker, A.J.
Optimizing the freezing point of aviation turbine kerosene [1993, ger] **48-1753**

Eckstaller, A.
Seismological observatory at Georg von Neumayer Station [1993, eng] **48-4153**
Seismological research at Georg von Neumayer Base, pt.2 [1993, eng] **48-4268**

Ecology and Environment, Inc., Arlington, VA
Trichloroethylene contamination of ground water at CRREL [1992, eng] **48-318**

Ecsedy, C.
Hydrologic response of freshwater watersheds to climatic variability: model development [1993, eng] **48-2054**

Edens, M.Q.
Relationship between the microstructure and mechanical properties of snow [1993, eng] **48-1175**

Edlund, S.A.
Occurrence of green algae on Ellesmere I. [1994, eng] **48-5131**

Edmeades, R.M.
New guidelines for cold weather concreting [1993, eng] **48-3759**

Edmonds, J.
CO_2: better in the Arctic? [1994, eng] **48-4476**

Edwards, G.C.
Wetland methane flux measured with a tower-mounted laser [1994, eng] **48-4607**

Edwards, L.M.
Soil runoff sediment response to freeze thaw cycles [1993, eng] **48-1370**

Edwards, M.E.
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present [1994, eng] **48-5059**

Edwards, M.P.
Mobile fog dispersion with liquid carbon dioxide. Final report [1993, eng] **48-3065**

Edwards, T.W.D.
Estimating evaporation in a subarctic watershed [1993, eng] **48-1152**
Interpreting past climate from stable isotopes in continental organic matter [1993, eng] **48-1501**
Runoff generation in a high boreal wetland in northern Canada [1993, eng] **48-1159**

Effects of adverse weather on aerodynamics
Effects of adverse weather on aerodynamics [1991, eng] **48-3684**

Efimova, L.V.
Modeling surface flow hydrography of a spring flood in small rivers [1992, rus] **48-184**

Egeland, A.K.
Canadian till preconsolidation by glacial loading [1993, eng] **48-1220**

Eggenberger, R.
Simulation of deuterium quadrupole coupling constant in ice [1993, eng] **48-2204**

Egger, J.
Internal atmospheric gravity waves near the coast of Antarctica [1993, eng] **48-1116**

Eglese, R.W.
Routeing winter gritting vehicles [1994, eng] **48-5054**

Egorov, A.G.
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass [1993, eng] **48-2449**

Egorov, E.R.
Influence of electric field on the properties of body-ice contact [1993, eng] **48-4320**

Egorov, S.A.
Periodic temperature inversions in the arctic troposphere [1993, eng] **48-1825**

Egorova, V.A.
Thermohaline structure around waters in coastal glaciers and icebergs [1987, rus] **48-2756**

Eguchi, M.
Avalanche hazards and their weather patterns in the Tohoku District [1993, jpn] **48-1969**

Ehlers, M.
Establishment of a digital database for the study of glacial velocity in Antarctica [1990, eng] **48-2428**

Ehret, G.
Two dimensional stratospheric aerosol distributions during EASOE [1994, eng] **48-5462**

Ehrmann, W.U.
Cenozoic glacial record of the Prydz Bay continental shelf [1991, eng] **48-3630**

Eichhorn, K.
High-velocity impacts of dust particles in low-temperature water ice [1993, eng] **48-2349**

Eicken, H.
Automated image analysis of ice thin sections [1993, eng] **48-2397**
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993 [1994, eng] **48-3927**
Marine ice physics under the Filchner-Ronne Ice Shelf [1991, eng] **48-4**
Ronne Ice shelf core and textural evolution of deforming ice [1992, eng] **48-238**
Ronne Ice Shelf physical properties [1994, eng] **48-5175**
Snow and ice distribution in the Weddell Sea [1994, eng] **48-4168**

Eigenbrod, K.D.
Downslope movements at shallow depths related to cyclic pore- pressure changes [1993, eng] **48-1014**

Eilert, P.L.
Surface sources on floating ice: the flexural ice wave [1984, eng] **48-3920**

Einarsson, M.Á.
Temperature conditions in Iceland 1901-1990 [1991, eng] **48-5291**

Eiriksson, J.
Origin of Icelandic glaciomarine sediments [1994, eng] **48-4989**

Eisenhauer, A.
Climatic implications of isotope profiles of polar ocean sediments [1994, eng] **48-4705**

Eittreim, S.
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations [1993, eng] **48-3291**

Eklund, K.L.
Recent research on alternative deicers at Chevron [1992, eng] **48-2089**

El Hussein, H.M.
Asphalt concrete low temperature performance [1992, eng] **48-2413**
Thermally induced stresses in asphalt concrete pavement [1993, eng] **48-5069**

El Moussali, F.
Fiberglass thermal properties applied to helicopter blade deicer design [1993, eng] **48-2375**

El-Jabi, N.
Laboratory and numerical studies of ice release [1994, eng] **48-5540**

El-Sayed, S.Z.
Will the ozone hole over Antarctica affect the productivity of the southern ocean [1992, eng] **48-3246**

El-Tahan, H.
Oil spill behavior in ice-infested waters [1994, eng] **48-4920**

Elborne, S.A.
Larger fungi associated with *Betula pubescens* in Greenland [1990, eng] **48-84**

Elder, B.
Ice dynamics at Ice Station Weddell I: I. Part 1. [1992, eng] **48-3778**

Elder, K.
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA [1993, eng] **48-2794**

Estimating total snow volume in a small alpine watershed [1993, eng] 48-2945
Improving methods for measurement and estimation of snow storage in alpine watersheds [1990, eng] 48-1578

Eliasson, Á.J.
Data analysis of icing measurements in Iceland [1993, eng] 48-845
Ice detector prediction of transmission line ice loads in northwestern Iceland [1993, eng] 48-840

Elices, M.
Prestressed cryogenic concrete. A review of testing in Spain [1982, eng] 48-5393

Elkins, G.E.
Pavement responses to seasonal variations [1994, eng] 48-4913

Ellefsen, E.
Satellite detection of sea ice leads—atmospheric factors [1993, eng] 48-1327

Ellermann, T.
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces [1993, eng] 48-621

Ellies, A.
^{137}Cs areal concentration in two sites in the Southern Shetland Islands [1993, eng] 48-4536

Ellingson, R.G.
Climate research in the former Soviet Union [1993, eng] 48-2744

Elliott, S.
Mitigation of ozone hole depletion by hydrocarbon injection [1994, eng] 48-3147

Ellis, A.W.
Snowfall in the lee of Lakes Erie and Ontario [1993, eng] 48-2960

Ellis, R.
Baling facility for municipal solid waste for the city of Yellowknife [1994, eng] 48-3357

Ellwanger, D.
Lithology of some Rhine glacier drumlins [1992, eng] 48-2522

Elsner, R.
Arctic research vessel design would expand science prospects [1993, eng] 48-2160

Elson, L.S.
Satellite microwave mapping of polar atmospheres [1993, eng] 48-2475

Eluszkiewicz, J.
On the microphysical state of the Martian seasonal caps [1993, eng] 48-994

Elvin, A.
Numerical modeling of transient creep in polycrystalline ice [1993, eng] 48-924

Ely, D.N.
Pneumatic deicer [1988, eng] 48-4272

Emel'ianova, L.V.
Global warming effects on structures built on permafrost soils [1993, eng] 48-1756

Emery, J.
Development of stone mastic asphalt mixes for Ontario use [1993, eng] 48-5086

Emery, J.J.
Evaluation of frost action mitigation procedures for highly frost-susceptible soils [1992, eng] 48-2114
Evaluation of frost action mitigation procedures for highly frost-susceptible soils [1993, eng] 48-5077

Emery, W.
Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery [1993, eng] 48-3281

Emery, W.J.
Systematized approach to AVHRR image navigation [1993, eng] 48-1357

Emmons, A.
Fusion of ERS-1 SAR and SSM/I ice data [1994, eng] 48-3466

Emmons, L.K.
Nitrous oxide as an indicator of arctic vortex dynamics [1994, eng] 48-5459
Spectroscopy of chlorine monoxide in the Greenland atmosphere [1994, eng] 48-5458

Endo, I.
Looking back on the snowstorms of 1986 [1986, jpn] 48-15

Endo, T.
Draft for a guide on safety measures for sidewalk snow removal equipment [1989, jpn] 48-677

Endo, Y.
Forecasting of direct-action avalanches in terms of snow accumulation rates [1993, jpn] 48-3175

Endoh, T.
Aggregation of snow crystals in the early growth stage [1992, jpn] 48-3202
Computer database for falling snowflakes [1993, eng] 48-2820
Measuring sea-ice concentration and floe-size distribution by image processing [1993, eng] 48-2824
Radar echo patterns related to land breeze intensity [1992, jpn] 48-3211
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido [1992, jpn] 48-3212

Engelhardt, H.
Monitoring the motion of an antarctic ice stream [1993, eng] 48-1669
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica [1993, eng] 48-3572

Engelmark, H.
Heat and water flows in freezing and thawing soils [1993, eng] 48-296
Numerical modelling of phase change in freezing and thawing unsaturated soil [1993, eng] 48-1153

England, J.
Holocene sea ice variations on Ellesmere I., arctic Canada [1983, eng] 48-3339
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply [1993, eng] 48-2209

Englezos, P.
Permafrost melting and stability of offshore methane hydrates subject to global warming [1994, eng] 48-4938
Relationship between global warming and methane gas hydrates in the earth [1993, eng] 48-1836
Stability of permafrost and gas hydrates subject to global warming [1993, eng] 48-4359

Enoki, K.
Development of the sink-and-float type ice boom [1993, jpn] 48-1046
Experimental study on the control of ice movement with a new design of ice boom [1993, eng] 48-4352
Fluid forces acting on and the velocity of ice floes [1993, eng] 48-4356
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon [1993, eng] 48-154
Preventive measures against pack ice damage to marine resources and fishery facilities [1994, eng] 48-3951
Study on drift ice control utilizing arch formation of ice floes [1993, eng] 48-4353
Uniaxial compressive strength and elastic modulus of sea ice [1993, eng] 48-4327

Enomoto, H.
Large temperature variations in winter around Svalbard [1993, eng] 48-1856
Lead distribution in the sea ice area in the Sea of Okhotsk and the Arctic [1990, eng] 48-4679

Enquist, B.J.
Effects of added water on an alpine forb [1994, eng] 48-3504

Enss, D.
Construction of the new Neumayer Station in Antarctica [1992, ger] 48-3243

Enterante, F.
Anti-siphon frost free faucet [1990, eng] 48-2182

Enterante, L.F., Jr.
Anti-siphon frost free faucet [1990, eng] 48-2182

Enterante, L.F., Sr.
Anti-siphon frost free faucet [1990, eng] 48-2182

Enüstün, B.V.
Frost susceptibility of concrete in near-saturated states [1994, eng] 48-5289

Environment Canada
Canada Water Act Annual Report—1988-90 [1989, eng] 48-3035

Eppard, R.A.
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin [1992, eng] 48-2090

Eppler, D.T.
Report on polar regions AVHRR workshop [1993, eng] 48-1293

Erakhtin, B.M.
Construction and methods of erecting hydrotechnical structures in the northern zone [1993, rus] 48-1522

Erasov, N.V.
Calculating the volume of mountain glaciers from their area [1992, rus] 48-4461

Ergeshev, A.A.
Water balance of Kyrgyzstan [1992, rus] 48-187

Erickson, M.C.
Comments on "Snow versus rain: looking beyond the 'magic' numbers" [1993, eng] 48-2360

Erickson, R.
Control of soil development on the Tanana River floodplain, interior Alaska [1993, eng] 48-643
Soil nitrification in forest floodplain ecosystems, Tanana River [1993, eng] 48-646

Erlenkeuser, H.
Isotope analysis of Arctic Ocean surface water plankton [1994, eng] 48-5635

Erlingsson, B.
Helicopter ice field surveys [1992, eng] 48-2902
Physical properties of the ice surface [1992, eng] 48-2901

Erlingsson, U.
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation [1994, eng] 48-4823
Computer model along a flow-line of an ice dome—"captured ice shelf" [1994, eng] 48-4824

Ermakov, V.I.
Results of measurements of negative ion concentration in the Arctic stratosphere [1993, rus] 48-2494

Ermekbaev, T.
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements [1992, rus] 48-4459

Ermilov, A.B.
Snow and ice cleaving machine [1992, eng] 48-5517
Working unit of snow and ice cleaving machine [1992, eng] 48-5516

Ermolaev, V.I.
Lower plant resources of Siberia and their use [1994, eng] 48-2480

Ermolenko, L.G.
Forest-growing potential of soils in the mountain boreal forests of southern Siberia [1991, rus] 48-4145

Ermolenko, P.M.
Forest-growing potential of soils in the mountain boreal forests of southern Siberia [1991, rus] 48-4145

Ermolin, E.D.
Studying columnar ice [1992, rus] 48-4462

Eronen, H.
Method for changing characteristics of ship and hull form of ice-breaking ship [1992, eng] 48-5522
MSV Fennica, new operational profile for an icebreaker [1994, eng] 48-4305

ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993
Proceedings. Space at the service of our environment [1994, eng] 48-3433

Ershov, E.D.
Peculiarities of gas hydrate formation in sands [1993, eng] 48-379
Problems in the stability of gas hydrate deposits in the cryolithozone [1992, rus] 48-1391
Problems of stability of gas-hydrated deposits in cryolithozone [1992, eng] 48-1897
Structure and texture formation of frozen sapropel [1993, eng] 48-365
Water and ion migration of frozen soils in open system [1992, eng] 48-1404

Ershov, IU.I.
Factoral-genetic systematization of Middle Siberia subarctic soils [1993, eng] 48-2279

Esala, M.J.
Grinding of frozen soil samples [1994, eng] 48-5389

Esch, D.C.
Detection of frozen soils and soil moisture changes beneath highway pavements [1993, eng] 48-380
Impacts of northern climate changes on arctic engineering practice [1992, eng] 48-2040
Wheel track rutting due to studded tires [1992, eng] 48-2088

Escher-Vetter, H.
Meteorological data from weather stations on mountain glaciers [1986, ger] 48-612
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983) [1986, ger] 48-611

Eshleman, K.N.
Episodic acidification of freshwater systems in Canada [1994, eng] 48-3621

Essmann, U.
Phase diagram for amorphous solid water [1993, eng] 48-2523

Eswaran, H.
Placement of cryosols in soil taxonomy [1993, eng] 48-2273

Etkin, D.A.
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay [1993, eng] 48-2354
Planning in a climate of change: choices under uncertainty [1992, eng] 48-2032

Etkin, V.S.
Laboratory investigations of the dielectric permittivity of frozen sandy soils [1993, eng] 48-4285
Microwave apparatus for monitoring soil temperatures [1994, eng] 48-2215

Ettema, R.
Criteria for increased ice discharge capacity of the upper Niagara River [1994, eng] 48-5607
Evolution of a university ice lab: IIHR in ice [1992, eng] 48-1536
Flow over dunes in ice-covered channels [1994, eng] 48-5545
Laboratory study of flow in ice-covered, dune-bed channels [1992, eng] 48-1543
Studies of ice jamming in the upper Niagara River: introduction and background [1994, eng] 48-5605
Two-layer model of ice-covered channel flow [1994, eng] 48-4247

Etzelmüller, B.
Mass balance and changes of surface slope of a Spitsbergen glacier [1993, eng] 48-3415

Eurenius, J.
Impact of a repository on permafrost development during glaciation advance [1991, eng] 48-4761

Eurola, S.
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites [1990, eng] 48-83

Evanich, P.L.
Pneumatic boot for helicopter rotor deicing [1980, eng] 48-1146

AUTHOR INDEX

Evans, D.J.A.
Scottish glaciomarine deposition and tectonics [1993, eng] **48-5011**

Evans, J.N.S.
Solid-state NMR of glycine in frozen solution [1993, eng] **48-4250**

Evans, S.G.
Canadian ice sheet decay in the Late Pleistocene [1993, eng] **48-3588**

Evdokimov, G.N.
Action of sea ice on offshore construction [1994, eng] **48-3027**

Everett, K.R.
Hillslope hydrology in an arctic setting [1993, eng] **48-398**

Evers, K.U.
Model ice developed at the HSVA ice tank [1993, eng] **48-173**

Evgin, E.
Anisotropic model for ge ned ice ductility [1994, eng] **48-3830**
Effect of crystal orientation on behaviour of columnar grained sea ice [1994, eng] **48-3023**
Practical elastic moduli for polycrystalline ice [1994, eng] **48-3014**

Evin, M.
Distribution of permafrost in rock glaciers of the southern Alps (France) [1990, eng] **48-2103**
Push moraine on Mt. Viso (Italy) [1991, fre] **48-3649**
Rock glacier-moraine dynamics in the southern French Alps [1993, fre] **48-4101**
Rock glaciers in Italian valleys—a new interpretation [1991, fre] **48-3648**

Evseev, V.F.
Criteria of radiation and seismic safety of underground nuclear tests [1993, eng] **48-4547**
Ecological safety problems connected at North Range (Island of Novaja Zemlja) [1993, eng] **48-4561**

Evtushenko, A.A.
Effect of electric current on the adhesion of ice to metal piles [1994, eng] **48-3965**

Expanded session of the Scientific Council of the Siberian Branch of the Academy of Sciences of the USSR on the combined development of taiga territories, 16th, Irkutsk, 24-25 Nov. 1987
Problems in the use of natural resources in the taiga zone [1989, rus] **48-900**

Experience of Thyssen-Waas-Vorschiffs on receiving the icebreaker *Mudyug*
Experience of Thyssen-Waas-Vorschiffs on receiving the icebreaker *Mudyug* [1990, ger] **48-3930**

Eyles, N.
Geodynamic controls on glaciation in Earth history [1994, eng] **48-5038**

Eymard, L.
ERS-1 microwave radiometer [1994, eng] **48-4035**

Ezell, D.S.
Freeze/frost data [1988, eng] **48-4399**

Ezraty, R.
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR [1994, eng] **48-3462**

Fabian, P.
Bromine-containing source gases during EASOE [1994, eng] **48-5445**

Fabre, D.
Distribution of permafrost in rock glaciers of the southern Alps (France) [1990, eng] **48-2103**

Facey, R.M.
Comprehensive domestic water quality study in the Northwest Territories [1994, eng] **48-3377**

Fadeev, I.V.
Gradientometric magnetic survey of arctic ice [1993, eng] **48-3248**

Faghri, A.
Ultrasonic measurement of confined water solidification [1993, eng] **48-2021**

Fahey, D.W.
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere [1994, eng] **48-4048**

Fahey, T.J.
Controls on soil solution chemistry in a subalpine forest in north-central Colorado [1993, eng] **48-695**

Fahl, K.
Weddell Sea algal communities [1993, eng] **48-597**

Fahlén, P.
Heat losses from air ducts and their effect on the performance of heat recovery ventilators [1994, eng] **48-3851**

Fahleson, C.
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden [1994, eng] **48-3964**
Results from full scale measuring of ice and wind loads on a high mast in Sweden [1993, eng] **48-853**

Fahnestock, M.A.
Greenland ice sheet change detection by SAR [1993, eng] **48-1345**
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery [1993, eng] **48-1670**

Fahrbach, E.
Circulation and water mass formation in the Weddell Sea [1993, ger] **48-767**
Circulation and water mass modification in the Weddell Sea [1992, eng] **48-235**

Fairall, C.W.
1992 Arctic Leads Experiment: an overview of the meteorology [1993, eng] **48-2126**

Fairbanks, R.G.
Marine sediment record of Pleistocene glacier/ocean linkage [1989, eng] **48-1821**

Fairbridge, R.W.
Holocene marine coastal evolution of the United States [1992, eng] **48-1924**
Norwegian beach emergence since deglaciation [1993, eng] **48-3799**

Fairchild, I.J.
Reactive carbonate in glacial systems [1994, eng] **48-5039**

Faksness, L.G.
Enhanced biological degradation of crude oil in a Spitsbergen tundra site [1993, eng] **48-3718**

Falk, A.
Military vehicles for cold climates [1994, eng] **48-3946**

Falkingham, J.C.
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence [1994, eng] **48-3471**

Fang, T.P.
Analysis of temperature effects on the flexural behavior of frozen soil [1993, eng] **48-459**

Faran, K.J.L.
Influence of low temperature on energy absorption in laminated composites [1993, eng] **48-2061**

Farman, J.C.
Dynamics of the arctic polar vortex during the EASOE campaign [1994, eng] **48-5439**

Farmer, D.M.
Seismic-acoustic sensing of sea ice wave mechanical properties [1994, eng] **48-4054**

Farmwald, J.A.
Using passive refrigeration to stabilize foundations in cold climates [1993, eng] **48-2214**

Farnes, P.E.
Estimating localized SWE on the Yellowstone northern range [1993, eng] **48-2928**

Farnsworth, R.K.
National Weather Service's transition to hydrologic modeling on scientific work stations [1993, eng] **48-681**

Farrara, J.D.
Simulation of 1979 stratospheric sudden warming [1994, eng] **48-5005**

Farzaneh, M.
AC flashover performance of ice-coated post insulators [1993, eng] **48-851**
Flashover performance of insulators in the presence of short icicles [1993, eng] **48-4342**
Flashover performance of insulators in the presence of short icicles [1994, eng] **48-4936**
Ice accretion on conductors energized by AC or DC [1994, eng] **48-4263**
Ice accretion on conductors energized by AC or DC [1993, eng] **48-4341**
Ice accumulation characteristics on Hydro-Quebec HV insulators [1993, eng] **48-846**

Fast, H.
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project [1993, eng] **48-2586**

Fastook, J.L.
Early Pliocene climate and ice-sheet modeling [1992, eng] **48-2617**

Faure, G.
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue [1992, eng] **48-2615**

Faustov, S.S.
Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra [1993, rus] **48-3743**

Favstritsky, N.A.
Cryoprotectant composition [1993, eng] **48-1281**
Cryoprotectant composition [1989, eng] **48-1876**

Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993
Proceedings [1993, eng] **48-679**

Fediukin, I.V.
Electromagnetic wave propagation in saline permafrost [1993, eng] **48-381**
Specificity of the phase transformations in the cryogenic saline sandy soils [1993, eng] **48-2300**

Fedor, L.S.
Solar radiation attenuation by ice content of stratus clouds [1989, eng] **48-1472**

Fedorov, A.N.
Dynamics of frozen terrain in Central Yakutia after technogenic exposure [1992, rus] **48-4797**

Fedorov, P.F.
Environmental protection in the design of land irrigation and water supply (Yakutia) [1992, rus] **48-4792**

Fedorov, S.P.
Approximate evaluation of the stress state of unrated sections of a main gas pipeline [1990, rus] **48-52**
Automation of field tests of pipes and high pressure vessels and prospects for its development [1990, rus] **48-53**

Fedorov-Davydov, D.G.
Carbon dioxide behaviour in cryogenic soils of north-eastern Asia [1993, eng] **48-2309**

Fedoseeva, V.I.
Temperature effect on the redistribution of microelements in the soil massif [1993, eng] **48-517**

Fei, T.
Subsea permafrost occurrence in the Alaskan continental shelf [1993, eng] **48-443**

Fei, X.L.
Best compaction dry density study of sulphate salty soil [1993, chi] **48-1449**
Compressing properties and salt heaving mechanism study of sulphate salty soil [1993, eng] **48-5204**

Fei, Y.W.
Thermal properties of high pressure ice [1993, eng] **48-922**

Feilberg, J.
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland [1990, eng] **48-81**

Feklistov, V.N.
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone [1993, eng] **48-2611**

Feldman, A.D.
Hydrologic modelling of flooding and runoff [1993, eng] **48-680**

Fel'dman, G.M.
Forecasting thermokarst with a computer [1992, rus] **48-4796**

Feldman, W.C.
Redistribution of subsurface neutrons caused by ground ice on Mars [1993, eng] **48-2057**

Feltham, J.A.
Ice issues related to the Prince Edward Island Bridge [1994, eng] **48-5621**

Felton, W.
Environmental measurements in the Beaufort Sea, spring 1991 [1992, eng] **48-4741**

Felton, W.J.
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988 [1991, eng] **48-4733**

Feltz, L.V.
Air-deliverable, ice-penetrating sonobuoy [1991, eng] **48-3664**

Femenias, P.
Analysis of satellite-altimeter height measurements above continental ice sheets [1993, eng] **48-3585**

Feng, M.
Landform and origin of Hanasi Lake, Altay Mountains [1993, chi] **48-4588**

Feng, Y.H.
Grouting to enhance frost resistance of pile structures [1993, eng] **48-500**

'Fennica' multipurpose icebreaker launched
'Fennica' multipurpose icebreaker launched [1992, eng] **48-3226**

Fenton, D.L.
Glycol concentration requirements for freeze burst protection [1993, eng] **48-2046**

Ferber, G.K.
Snowstorms over the Puget Sound lowlands [1993, eng] **48-2359**

Ferguson, R.L.
NOAA coastal land cover classification system [1993, eng] **48-1097**

Ferland, K.K.
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] **48-192**

Fernando, H.J.S.
Effects of background rotation on turbulent line plumes [1993, eng] **48-1118**
Lead-induced convection: a laboratory perspective [1993, eng] **48-315**

Ferrell, J.E.
Trans Alaska pipeline reinsulation in Atigun Pass [1993, eng] **48-438**

Ferrians, O.J., Jr.
Circumarctic map of permafrost and ground ice conditions [1993, eng] **48-5213**

Ferrick, M.G.
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar [1993, eng] **48-3492**
Development of an airborne millimeter-wave FM-CW radar for mapping river ice [1993, eng] **48-2816**
Examining the influence of snow cover on morning air temperature [1993, eng] **48-2948**
Joint 50th Eastern and 61st Western Snow Conference, 1993 [1993, eng] **48-2920**
Kinematic model of river ice motion during dynamic breakup [1993, eng] **48-1621**
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement [1993, eng] **48-2084**
Vector analysis of ice-fabric data [1993, eng] **48-2392**

Ferrier, B.S.
Double-moment multiple-phase four-class bulk ice scheme. Part I: description [1994, eng] **48-3808**

Ferrier, R.
Melt water chemistry and its impact on stream water quality [1993, eng] **48-986**

Ferrigno, J.G.
Antarctic glacier-tongue velocities from Landsat images: first results [1993, eng] 48-1349
Satellite Image Atlas of Glaciers [1978, eng] 48-2985
Satellite image atlas of glaciers of the world: Europe [1993, eng] 48-4027
Thwaites Glacier tongue variations from photographic surveys [1993, eng] 48-1329

Fesler, D.
Snow sense: a guide to evaluating snow avalanche hazard [1988, eng] 48-1957

Fett, R.W.
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites [1993, eng] 48-2135

Fetterer, F.
Synthetic aperture radar imagery for operational ice analysis [1991, eng] 48-4737

Fetterer, F.M.
Data set of arctic AVHRR imagery for the study of leads [1993, eng] 48-1355
Developing automated analysis methods for sea ice imagery [1993, eng] 48-1962
Hough transform algorithm for sea ice lead analysis: an evaluation [1993, eng] 48-4752
Report on polar regions AVHRR workshop [1993, eng] 48-1293

Fettweis, M.
Models of boundary value problems pertaining to the Weddell Sea [1990, eng] 48-777
Numerical simulations of wind-driven flows in the antarctic coastal zones [1993, eng] 48-2138

Ffolliott, P.F.
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona [1993, eng] 48-1752

Fichefet, T.
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model [1993, eng] 48-4199

Fiedler, M.
Arctic stratospheric chemistry—winter 1989-90 [1993, eng] 48-950

Fierlinger, H.
Cloudwater droplet chemistry of Mt. Sonnblick, Austria [1994, eng] 48-4805

Figarov, N.
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia [1994, eng] 48-3407

Fikke, S.M.
Effects of polluted atmospheric ice on power line conductivity [1993, eng] 48-1829

Fiksel, T.
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique [1994, eng] 48-3440

Filion, L.
Origin and significance of subarctic patchy podzolic soils and paleosols [1993, eng] 48-2414

Filippov, A.M.
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention [1992, eng] 48-1244

Filippov, V.V.
Impact of nonstationary temperature effects on the stress state of integrated structures [1990, rus] 48-60

Filliger, P.
Spatial differences of maximum snow cover depth in the Swiss Alps [1986, ger] 48-614

Filonov, N.P.
Nevada—Novaya Zemlya [1992, rus] 48-1268

Fily, M.
Correlation of antarctic ice sheet radiometric and ground truth data [1993, eng] 48-1316
Large scale study of the microwave signature of the antarctic ice sheet [1991, eng] 48-3710
Microwave spectral signatures over the antarctic ice sheet [1991, eng] 48-3711
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica [1993, eng] 48-1304

Finer, S.I.
Mathematical model of ice-bank system performance [1993, eng] 48-3199

Finger, L.W.
Novel H2-H2O clathrates at high pressures [1993, eng] 48-1757

Finkel'shtein, S.M.
Heating and ventilation systems for industrial buildings [1994, eng] 48-3861

Finlayson-Pitts, B.J.
Ozone destruction and bromine photochemistry at ground level in the arctic spring [1990, eng] 48-3296

Finley, J.B., Jr.
Hydrochemistry in a snowmelt dominated catchment [1993, eng] 48-3531

Finn, D.W.
Vertical and inclined edge-indentation of freshwater ice sheets [1993, eng] 48-2730

Finn, W.D.L.
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986 [1994, eng] 48-5615

Finnegan, W.G.
Ice crystal formation in cloud seeding processes [1993, eng] 48-1742
Oxidation-reduction reactions in growing ice crystals, comment and reply [1991, eng] 48-778
Studies of cubic ice crystals [1991, eng] 48-4755

Finnekåsa, Ö.
Instrumented moorings and CTD measurements [1992, eng] 48-2897

Finnish firms in arctic shipping joint venture
Finnish firms in arctic shipping joint venture [1993, eng] 48-3228

Finnish National Road Administration
Winter road maintenance methods in Finland [1993, eng] 48-3938

Finnish-Swedish lawsuit over icebreaker hull form
Finnish-Swedish lawsuit over icebreaker hull form [1992, ger] 48-2814

Finstad, K.J.
Modelling of rime icing of wind turbines [1993, eng] 48-822

Finsterwalder, R.
Change in surface elevation of glaciers in the eastern Alps, 1979-1989 [1991, ger] 48-3660
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969 [1977, ger] 48-3309

Fiore, S.
New correlation of the glacial moraines in the Southern Apennines, Italy [1990, eng] 48-2102

Fiori, J.E.
Mesoscale atmosphere icing event, March 1991 [1993, eng] 48-2964

Fireman, E.L.
Trace elements in basal ice at Dye-3 [1993, eng] 48-3905

Fischer, J.
Greenland Sea hydrography—winter 1988-89 [1993, eng] 48-224

Fish, A.M.
Creep and failure of ice under monotonic loading [1993, eng] 48-4332

Fish, D.J.
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars [1994, eng] 48-5486

Fishbein, E.F.
Stratospheric waves in temperature and ozone [1993, eng] 48-4221

Fisher, D.A.
If Martian ice caps flow: ablation mechanisms and appearance [1993, eng] 48-2557

Fisher, M.
Rapid descent of mesospheric air into the stratospheric polar vortex [1993, eng] 48-627

Fisk, D.J.
Mesoscale atmosphere icing event, March 1991 [1993, eng] 48-2964

Fitch, M.
Synoptic aspects of antarctic mesocyclones [1993, eng] 48-198

Fitzgerald, D.M.
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts [1992, eng] 48-1927

Fitzgerald, L.
Microwave locator of objects buried in snow [1994, eng] 48-3276

Fitzjarrald, D.R.
Boundary layer climate in a subarctic lichen woodland [1994, eng] 48-4635

Fitzpatrick, P.J.
Global ice loads on arctic structures interpreted from foundation displacements [1994, eng] 48-3363

Fitzsimons, S.J.
Supraglacial eskers in Antarctica [1991, eng] 48-2334

Flanders, S.N.
Standard test for determining air change by a tracer gas [1993, eng] 48-2700
Time constraints on measuring building R-values [1979, eng] 48-4139

Flato, G.M.
Particle-in-cell sea-ice model [1993, eng] 48-2353

Flegal, A.R.
Anthropogenic lead in antarctic sea water [1993, eng] 48-332

Fleisher, P.J.
Bering Glacier model applied to New York Appalachian deglaciation [1993, eng] 48-2331

Fleissner, G.
Thermodynamic continuity between glassy and normal water [1994, eng] 48-4818

Flemming, R.J.
Model rotor icing tests in the NASA Lewis Icing Research Tunnel [1991, eng] 48-3688

Flerchinger, G.N.
Groundwater response to mountain snowmelt [1993, eng] 48-2378

Flesia, C.
Lidar measurements of Pinatubo aerosols in the arctic stratosphere [1994, eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds [1993, eng] 48-2987

Fletcher, C.H., III
Norwegian beach emergence since deglaciation [1993, eng] 48-3799
Quaternary coasts of the United States: marine and lacustrine systems [1992, eng] 48-1923

Flett, T.O.
Geological, geochemical, and operational summary, Aurora Well [1994, eng] 48-3329

Flocchini, G.
Ice overloads and wind at Mt. Capellino, Italy [1986, eng] 48-615

Flood, M.
Manual of environmental effects: the countries of former Yugoslavia and Albania [1993, eng] 48-1869

Flower, B.P.
Middle Miocene climatic transition [1994, eng] 48-5412

Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base
Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base [1991, eng] 48-3123

Fogarasi, S.
Teleconnections and glacier mass balance [1988, eng] 48-2545

Föhn, P.M.B.
Climatic change, snowcover and avalanches [1989, eng] 48-2569

Foitzik, A.H.
Amelioration of ice layer effects on spectroscopic detector performance [1993, eng] 48-1012

Folkeson, L.
Environmental effects of highway runoff water. A literature review [1994, swe] 48-4021

Folving, S.
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland [1990, eng] 48-81

Fomin, O.K.
Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea [1991, rus] 48-2533
Seasonal succession of zooplankton in the coastal zone of Eastern Murman [1991, rus] 48-2532

Fondrk, J.
Arctic sciences program research summaries, 1992 [1993, eng] 48-1463

Fontaine, A.G.
Convertible grass cutting and snow blowing machine having a cylindrical rotor [1991, eng] 48-2235

Foote, M.J.
Floodplain ecosystems of the Tanana River, AK [1993, eng] 48-638

Forbes, B.C.
Survey of soil disturbances at an abandoned arctic site [1993, eng] 48-382

Forbes, D.L.
Ice in the shore zone and the geomorphology of cold coasts [1994, eng] 48-4974

Forest, T.W.
Moisture deposition from air flow through wall cavities [1993, eng] 48-871

Forester, R.M.
Glacial Lake Agassiz meltwater influx into Lake Michigan [1994, eng] 48-4951

Forman, S.L.
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard [1990, eng] 48-2684

Forr, J.P.
Electrically heated window for vehicle having at least three heatable zones [1993, eng] 48-4429

Forsberg, C.F.
Glacigenic sediments related to the glacial history of Prydz Bay [1991, eng] 48-3631

Forsen, A.C.
Rudder/propulsion device arrangements on icegoing vessels [1993, eng] 48-102

Fortier, R.
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec) [1994, eng] 48-3393
Effect of physical properties of frozen ground on electrical resistivity logging [1994, eng] 48-5113
Monitoring thawing front movement by self-potential measurement [1993, eng] 48-383
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec [1990, eng] 48-1521

Fortin, J.P.
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec [1994, fre] 48-4484

Foster, J.L.
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. [1993, eng] 48-1297

Fotiev, S.M.
Permafrost preservation during global warming [1993, eng] 48-537

Fountain, A.G.
Glacier borehole water-level variations [1994, eng] 48-5166

Fouquart, Y.
Modeling of cirrus bidirectional reflectances [1993, eng] 48-2988
Sea ice surface radiation flux from satellite data [1993, eng] 48-1323

AUTHOR INDEX

Fournier, J.
Macrobenthos communities in Baffin I. fiords [1993, eng] **48-1833**
Fowler, A.C.
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave [1993, eng] **48-5205**
Fowler, C.
Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery [1993, eng] **48-3281**
Spaceborne/ground truth radiometric ice sheet correlations [1993, eng] **48-1299**
Fox, A.N.
Snowline and climate in the Andes now and in the Pleistocene [1994, eng] **48-3550**
Fox, C.A.
Development of granular structure in surface horizons of strongly cryoturbated soils [1993, eng] **48-2294**
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993 [1993, eng] **48-2497**
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada [1993, eng] **48-2498**
Fox, S.
Foundation collapse in permafrost at Thule Air Base, 1953- 1993 [1994, eng] **48-3975**
Frakes, L.A.
Phanerozoic polar climates from Cretaceous ice-rafted sediments [1988, eng] **48-1506**
France, R.L.
Fallout distribution inferred from tundra plant tissues [1993, eng] **48-968**
Francis, A.
Safety in the operation of cryogenic systems at the South Pole [1993, eng] **48-1358**
Francis, J.A.
Improved satellite sounding of heat flux over sea ice [1994, eng] **48-4846**
Francis, J.E.
Phanerozoic polar climates from Cretaceous ice-rafted sediments [1988, eng] **48-1506**
Francis, T.J.G.
Ice management in high latitude scientific ocean drilling [1994, eng] **48-3987**
Francois, R.E.
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988 [1991, eng] **48-4733**
Francou, B.
Stone bank stratification in an alpine environment [1993, fre] **48-1149**
Frankenstein, S.
Effect of waves on pancake ice collisions [1993, eng] **48-4349**
Response of distinct ice floes to ocean gravity waves [1994, eng] **48-5563**
Franklin, S.E.
Classification of alpine vegetation using Landsat data [1994, eng] **48-4011**
Remote sensing of alpine vegetation in Yukon Territory [1992, eng] **48-1761**
Fransson, L.
Load distribution at the contact between an ice cover and a vertical wall structure [1994, eng] **48-3972**
Non-simultaneous ice failure on wide and narrow offshore structures [1994, eng] **48-5616**
Porosity effects on measured strength of warm ice [1993, eng] **48-89**
Franzén, L.G.
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991 [1994, eng] **48-5116**
Frawley, J.J.
Accuracy of satellite laser altimetry of ice sheets [1994, eng] **48-4831**
Frazer, T.K.
Summary of WinCruise IV to the Antarctic Peninsula during September 1991 [1992, eng] **48-5098**
Frederick, J.E.
Solar ultraviolet irradiance at Palmer Station, Antarctica [1994, eng] **48-4503**
Frederking, R.M.W.
Effect of scale on the indentation resistance of ice [1993, eng] **48-90**
Laboratory impact tests on freshwater ice [1993, eng] **48-2735**
Numerical simulations of mesoscale rheology of broken ice fields [1993, eng] **48-166**
Pack ice driving forces inferred from MOLIKPAQ ice loads [1992, eng] **48-1556**
Size effect on pack ice driving forces [1992, eng] **48-1557**
Stress distribution during ice indentation [1992, eng] **48-1539**
Frederking, R.W.
Proceedings. Vol.2 [1993, eng] **48-4312**
Fredston, J.A.
Snow sense: a guide to evaluating snow avalanche hazard [1988, eng] **48-1957**
Freeborne, W.
Frost protected shallow foundations and freezing index climatography for residential construction [1994, eng] **48-3398**
Freeman, G.
Disaggregation models of seasonal streamflow forecasts [1993, eng] **48-2955**
Frei, A.
North American snow cover variability, 1972-1993 [1993, eng] **48-2926**
Fremel', T.V.
Mechanism of action of pour-point depressants [1994, eng] **48-4167**
French, D.D.
Soil decomposition in Marion I. tundra [1993, eng] **48-1892**
Summer snow patches and climate in northeast Scotland, U.K. [1994, eng] **48-4373**
French, H.M.
Permafrost history of the Pleistocene Mackenzie Delta [1993, eng] **48-440**
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic [1993, eng] **48-5049**
French, N.H.F.
SAR imaging of Alaskan forest fires [1994, eng] **48-5137**
Frette, Ø.
Physical properties of the ice surface [1992, eng] **48-2901**
Freysteinsson, S.
Operation of hydro power plants under diverse ice conditions [1994, eng] **48-5549**
Frezzotti, M.
Antarctic glacial dynamics inferred from remote sensing data [1993, eng] **48-1301**
Evaluation of the dynamic parameters of Strandline Glacier [1992, ita] **48-3287**
Remote sensing analysis of Victoria Land ice shelves and ice tongues [1992, ita] **48-3288**
Fried, A.
Nitric oxide/sulfuric acid reactions at stratospheric temperatures [1994, eng] **48-3149**
Friedman, I.
Ancient climate from deuterium content of water in volcanic glass [1993, eng] **48-1500**
Frigon, A.
Study of a CASP storm: analysis of radar data [1993, eng] **48-2345**
Frimodt-Møller, B.
Accident classification in the Arctic [1992, eng] **48-4963**
Frisbie, T.R.
Measurements of snow plow loads during ice removal [1993, eng] **48-3923**
Frish, M.
Laser ignition of arctic oil spills: engineering design [1986, eng] **48-4172**
Fritsen, C.H.
Microbial production in the Weddell Sea pack ice [1992, eng] **48-3779**
Froidevaux, L.
Satellite microwave mapping of polar atmospheres [1993, eng] **48-2475**
Frolich, R.M.
ERS-1 SAR: stress indicator for antarctic ice streams [1994, eng] **48-3445**
Monitoring the motion of an antarctic ice stream [1993, eng] **48-1669**
Surface mass balance of the Antarctic Peninsula ice sheet [1992, eng] **48-780**
Frolov, A.D.
Electromagnetic wave propagation in saline permafrost [1993, eng] **48-381**
Specificity of the phase transformations in the cryogenic saline sandy soils [1993, eng] **48-2300**
Thermophysical and electric properties of saline frozen soils [1993, eng] **48-890**
Frost, H.J.
Crack nucleation mechanism in saline ice [1994, eng] **48-4567**
Frost, W.
Particle trajectory computer program for icing analysis of axisymmetric bodies [1992, eng] **48-4861**
Frydecki, J.
Permafrost ice content in Quebec [1990, eng] **48-2544**
Quaternary geology and geocryology in Nunavik, Canada [1993, eng] **48-350**
Semi-quantitative geophysical investigation of permafrost in northern Québec [1994, eng] **48-4820**
Frye, G.C.
Method and apparatus for acoustic plate mode liquid-solid phase transition detection [1990, eng] **48-4756**
Fryxell, G.A.
Distribution of antarctic diatoms in the Weddell Sea during austral winter [1993, eng] **48-3735**
Fu, H.Y.
Physics of liquid water in frozen powders and soils [1993, eng] **48-5209**
Fuchs, W.
Aircraft icing in VMC below low stratus clouds [1993, eng] **48-856**
Helicopter icing in VMC below low stratus clouds [1993, eng] **48-4340**
Fuhrer, K.
Continuous measurements of Greenland ice core chemistry [1993, eng] **48-1233**
Polar ice core records over the past 100,000 years [1993, eng] **48-3057**
Fuhrmann, M.
Adsorption of long-lived radionuclides on sediment from the Kara Sea [1993, eng] **48-4564**
Fujieda, H.
Bulletin on road snow removal in the 1986 snowstorms [1986, jpn] **48-39**
Bulletin on the budget for snow and cold weather operations for 1987 [1987, jpn] **48-283**
Estimated budget requirements for snow and cold weather operations for 1987 [1986, jpn] **48-267**
Estimated budget requirements for snow and cold weather operations for 1988 [1987, jpn] **48-554**
Report on the budget items for snow and cold weather operations in 1985 [1986, jpn] **48-27**
Fujii, K.
Powered snowplow [1991, eng] **48-2246**
Fujii, O.
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines [1993, eng] **48-850**
Fujii, Y.
Drilling through the antarctic ice sheet [1993, jpn] **48-2437**
Effects of a porous medium in a flow passage with miter bend [1993, eng] **48-869**
Report of wintering team of the 32nd JARE, 1990-92 [1992, jpn] **48-2445**
Fujiki, N.M.
Effect of air bubbles on radar backscattering by hailstones [1994, eng] **48-2887**
Fujimura, M.
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line) [1993, jpn] **48-1031**
Fujimura, S.
Depth dependence of snow brightness temperature on sea ice [1993, eng] **48-1683**
Fujino, K.
Evaluation of the data measured by MSR related to snowpack parameter [1990, jpn] **48-4875**
Hokkaido University Institute of Low Temperature Science [1987, jpn] **48-278**
Portable FM-CW radar for collecting the ground truth data of snowpack [1993, eng] **48-1723**
Fujisawa, K.
Estimating snow avalanche runout distances from topographic data [1993, eng] **48-2860**
Model project for establishing an avalanche warning and evacuation system [1993, eng] **48-2861**
Snow avalanche prevention program and structural design—case study of Maseguchi area [1994, eng] **48-4932**
Fujita, S.
Dielectric anisotropy in ice Ih at 9.7 GHz [1993, eng] **48-1335**
Dielectric properties of ice at various radio frequencies [1993, eng] **48-3002**
Dielectric properties of NaCl-doped ice at 9.7 GHz [1993, eng] **48-1867**
Drilling fluid for Dome F project in Antarctica [1994, eng] **48-5361**
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies [1993, eng] **48-1712**
Radar sounding of antarctic ice sheet structure [1993, eng] **48-1334**
Fujita, T.
Freezing of water in a closed circular tube [1993, eng] **48-868**
Fujiyoshi, Y.
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido [1992, jpn] **48-3212**
Fukabori, M.
Multiple scattering model for the atmosphere-snow system [1993, eng] **48-2989**
Fukami, K.
Microwave backscattering characteristics of snow [1993, eng] **48-1711**
Fukao, S.
Radar detection of thundercloud ice particle distribution [1993, eng] **48-951**
Fukazawa, D.
Positioning of houses on lots in snow districts [1993, jpn] **48-1985**
Fukuchi, M.
Report of wintering team of JARE-33 in 1991-1993 [1993, jpn] **48-2438**
Fukuda, K.
Thermosyphon solar collector systems in cold regions [1993, eng] **48-892**
Fukuda, M.
Effects of climatic warming on the active layer [1993, eng] **48-441**
Report on permafrost study at Isla Marambio (Seymour Island) [1993, jpn] **48-2433**
Fukuda, N.
Development of a new type of silicone rubber phase spacer [1993, eng] **48-849**

Fukuda, Y.
Regulations on studded tire usage and winter road administration in Japan [1993, eng] **48-1187**
Fukusako, S.
Freezing of water flow in a horizontal cooled tube [1993, eng] **48-865**
Melting heat transfer along a horizontal heated tube immersed in liquid ice [1993, eng] **48-1105**
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall [1993, eng] **48-2460**
Some topics on melting heat transfer problems [1993, eng] **48-858**
Fukushima, T.
Fractal analysis of frost-resistant reinforced cement [1993, eng] **48-1601**
Fukushima, Y.
Analysis of powder-snow avalanches using three-dimensional topographic data [1993, eng] **48-2835**
Comparison of Japanese snow removal technologies [1993, eng] **48-2872**
Snow transport in an open channel on mild slope configuration [1993, jpn] **48-3188**
Fukuzawa, T.
Depth-hoar crystal growth in the surface layer under high temperature gradient [1993, eng] **48-2825**
Growth rates of depth hoar (II) [1992, jpn] **48-3204**
Fukuzawa, Y.
Poor visibility caused by snow whirl behind vehicles [1993, jpn] **48-3171**
Visibility reduction by snow in the wake of highway vehicles [1993, jpn] **48-1968**
Visibility reduction caused by snow and a driver's eye movement [1993, jpn] **48-1967**
Visibility reduction caused by snow in the wake of vehicles on highways [1993, eng] **48-1201**
Funaba, H.
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles [1993, jpn] **48-1989**
Funada, H.
Development of a method for predicting snowfall intensity and compacted snow on roads [1993, jpn] **48-1852**
Fung, A.K.
Synthetic dense media fabrication with application to sea ice [1993, eng] **48-1696**
Funk, M.
Possible alpine ice-core drilling sites, an overview [1994, eng] **48-2719**
Water balance and glacier mass balance in the Swiss Alps [1990, fre] **48-1572**
Funke, E.R.
Protective system against icebergs or floating objects [1993, eng] **48-1516**
Furey, D.
Frazil ice concentration meter [1992, eng] **48-1547**
Furuhama, K.
Cold storage system [1991, eng] **48-2232**
Furuichi, N.
Estimation of meteorological conditions in mountainous regions for ice accretion [1993, eng] **48-813**
Furukawa, T.
Spectroscopy of ice grown on solid surfaces [1993, eng] **48-1917**
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images [1993, eng] **48-1300**
Furukawa, Y.
Ellipsometric study of the quasi-liquid layer on ice surface [1992, jpn] **48-3162**
Furuya, A.
Regional economy along the Okhotsk Sea in Hokkaido [1994, eng] **48-3992**
Fushimi, H.
Climatic warming effects on lake water quality [1993, eng] **48-2863**
Futami, K.
On the creep tests of ice dome model in a low temperature laboratory [1993, jpn] **48-2002**
Snowdrifts and the differential settlement of buildings (2) [1993, jpn] **48-2001**
Fütterer, D.
Arctic Ocean Pleistocene-Holocene sedimentation rates [1994, eng] **48-5641**
Fütterer, D.K.
Late Quaternary record of sea-level changes in the Antarctic [1993, eng] **48-1007**
Gaare, E.
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident [1993, eng] **48-4553**
Gabl, K.
Avalanche handbook [1988, ger] **48-2127**
Gabrielsson, J.
Weather model for indoor thermal calculations [1994, eng] **48-3845**
Gadzhiev, I.M.
Land resources of West Siberia, problems of their rational use and protection [1994, eng] **48-2478**
Gaffney, E.S.
Gas gun experiments to determine shock wave behavior in snow: methods and data [1993, eng] **48-1005**
Gaffney, J.S.
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail [1994, eng] **48-4977**
Gafurov, F.G.
Soil cover of river valleys of the Yamal Peninsula [1993, eng] **48-2283**
Gäggeler, H.
Atmospheric constituents in high alpine ice cores [1994, eng] **48-2717**
Gagnon, P.F.
Rheological properties of regular and polymer modified asphalts [1993, eng] **48-5090**
Gagnon, R.E.
Full scale deflection of ice by an icebreaker [1993, eng] **48-103**
Generation of melt during crushing experiments on freshwater ice [1994, eng] **48-5114**
Gaigalas, A.
Pleistocene glacial deposits on Scandinavian ice sheet margins [1993, eng] **48-1010**
Gajewski, K.
Holocene vegetation history in a Québec forest [1993, eng] **48-2076**
Galaktionov, L.V.
Characteristics of the structural formation of weld seams, applied by an irregular fusion method [1990, rus] **48-54**
Galbraith, P.W.
Estimating ice jams using meteorological parameters [1981, eng] **48-4024**
Galen, C.
Alpine plant growth manipulation through snowmelt variation [1993, eng] **48-961**
Galkin, G.I.
Snow retention plough [1992, eng] **48-4069**
Gallavresi, F.
Numerical and experimental study of the artificial freezing of sand [1994, eng] **48-4038**
Gallée, H.
Katabatic wind simulation around Terra Nova Bay [1994, eng] **48-4066**
Katabatic wind simulation in Terra Nova Bay area [1993, eng] **48-2139**
Simulation of the climate of the last 200 kyr with the LLN 2D-model [1993, eng] **48-4196**
Gallegos, S.C.
Cloud screening in AVHRR digital data over arctic regions [1993, eng] **48-1353**
Gallop, M.
Modelling of gelifluction and frost creep [1993, eng] **48-2020**
Galloway, R.W.
Australian snowfields past and present [1986, eng] **48-203**
Gal'ster, N.V.
Arrival date of stable snow cover and the extent of cold period precipitation in the Ili-Balkhash basin [1992, rus] **48-4467**
Gamache, J.F.
Aircraft survey of Hurricane Norbert pt.3 [1993, eng] **48-2465**
Gamble, S.
Lulu Pass avalanche [1994, eng] **48-4119**
Gameda, S.
Effect of addition of water on snow compaction [1994, eng] **48-3745**
Gan, T.Y.
Northward migration of permafrost along the Mackenzie Highway and climatic warming [1994, eng] **48-5306**
Gang, L.S.
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash [1993, eng] **48-3117**
Gangloff, P.
Relict iceberg marks near Montreal, Quebec [1993, fre] **48-1147**
Gao, B.C.
Effects of sea ice cover on cirrus cloud IR detection [1994, eng] **48-3758**
Gao, C.H.
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China [1992, eng] **48-4410**
Gao, D.Y.
Air-ice interaction [1992, eng] **48-2899**
Gao, J.P.
Orthogonal regression study of frost heave in saline soil [1993, chi] **48-1450**
Gao, L.J.
Impact forces between floes in the Newfoundland ice margin [1993, eng] **48-146**
Gao, M.
Composite model of multiple actions for forming patterned ground [1993, chi] **48-4396**
Composite model of multiple actions for forming patterned ground [1993, eng] **48-5221**
Gao, W.Y.
Water and heat transfer in the active layer [1993, eng] **48-5247**
Water and solute migration of freezing soils in closed system under temperature gradients [1992, eng] **48-1403**
Gao, X.Q.
Effects of ice and snow density on minimum isotropic strain rate [1993, chi] **48-4578**
Gao, X.W.
Numerical technique for solving temperature field of frozen wall [1993, eng] **48-384**
Garagulia, L.S.
About an assessment of factors in railway bed stability in the permafrost zone [1994, eng] **48-3399**
García, M.A.
Oceanography of the Bransfield Strait from ERS-1 products [1994, eng] **48-3470**
García-Hernández, M.
Vibration fluctuations in polycrystalline ice [1993, eng] **48-2027**
Gard, G.
Pedestrian anti-skid winter footwear [1994, eng] **48-3947**
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic [1994, eng] **48-5638**
Gardievskaia, Z.G.
Recultivation of oil-contaminated soils [1990, rus] **48-5404**
Gardiner, D.P.
Effects of gas leakage and crevices on cold starting of engines [1994, eng] **48-3086**
Gardner, C.S.
Gravity waves in the antarctic mesosphere [1994, eng] **48-4049**
Gardner, J.S.
Ablation on debris covered glaciers in Punjab [1993, eng] **48-2793**
Gardner, W.S.
Ice algae primary productivity in the high arctic [1993, eng] **48-85**
Garen, D.C.
Modeling for water supply forecasting in the West [1993, eng] **48-688**
Garlinger, R.A.
Water tank cathodic protection system [1990, eng] **48-2170**
Garmo, T.H.
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992 [1993, eng] **48-4551**
Garneau, R.R.
Construction of electrical substations in discontinuous permafrost regions [1993, eng] **48-402**
Garratt, V.E.W.
Icing studies in an aerospace altitude test facility [1991, eng] **48-4736**
Garrison, G.R.
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988 [1991, eng] **48-4733**
Garrity, C.
Fusion of ERS-1 SAR and SSM/I ice data [1994, eng] **48-3466**
Garvin, J.B.
Airborne laser geodetic survey of Greenland glaciers [1993, eng] **48-1352**
Garwood, R.W., Jr.
Identification of modeled ocean plumes in Greenland gyre ERS- 1 SAR data [1993, eng] **48-2210**
Gatto, L.W.
Environmental aspects of river ice [1993, eng] **48-215**
River ice conditions determined from ERS-1 SAR [1993, eng] **48-2935**
Gatza, W.K.
Method and apparatus for conserving battery power in a snowmobile electrical system [1991, eng] **48-2251**
Gauchon, J.P.
Ice pellets and decontamination [1993, fre] **48-3280**
Gaughan, J.R., III
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft [1992, eng] **48-4959**
Gauthier, M.F.
Remote sensing for ice monitoring along Canada's east coast [1993, eng] **48-1728**
Gauthier, Y.
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec [1994, fre] **48-4484**
Gautier, C.
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery [1994, eng] **48-4384**
Role of clouds and ozone on spectral ultraviolet-B radiation [1994, eng] **48-4385**
Gavril'ev, P.P.
Agricultural melioration and cryoecology in permafrost conditions [1992, rus] **48-4790**
Gavril'ev, R.I.
Thermophysical conditions of frozen soils with regard to their sagging after thawing [1992, rus] **48-4803**
Gavrilo, V.P.
Investigation of sea ice interaction with SHF-electromagnetic field [1993, eng] **48-1903**
Variability in the hydrophysical fields near drifting icebergs and safe navigation [1993, rus] **48-1904**
Gavrilov, A.V.
Ecological-geological regionalization of the cryolithozone in the USSR [1993, eng] **48-2540**

Gavrilova, M.K.
Effect of global climate changes on the cryolithozone [1992, rus] **48-4773**
Future climate changes and permafrost [1992, rus] **48-4774**
Present human induced climatic change and cryoecology [1993, eng] **48-5182**
Gawarkiewicz, G.
Summertime synoptic variability of frontal systems in the northern Bering Sea [1994, eng] **48-4052**
Gayley, R.I.
Insoluble particles in polar ice [1994, eng] **48-4443**
Ge, H.Y.
Frost resistant bridge piles in a waterlogged area [1993, chi] **48-4505**
Frost resistant bridge piles in a waterlogged area [1993, eng] **48-5216**
Geballe, T.R.
Spectroscopic detection of molecular hydrogen frozen in interstellar ices [1993, eng] **48-769**
Gebhart, B.
Effects of supercooling and freezing on natural convection in seawater [1994, eng] **48-3803**
Gedzelman, S.D.
Modeling the isotopic composition of precipitation [1994, eng] **48-4849**
Geen, C.
Sources of organobromines to the arctic temperature [1993, eng] **48-3058**
Geirsdóttir, A.
Origin of Icelandic glaciomarine sediments [1994, eng] **48-4989**
Geldart, D.J.W.
Effect of air bubbles on radar backscattering by hailstones [1994, eng] **48-2887**
Gellatly, A.F.
Recent research on the Calderone glacier, Abruzzo, Italy [1993, ita] **48-4102**
Gent, R.W.
Review of icing research at the Royal Aerospace Establishment [1991, eng] **48-3689**
Genthon, C.
Antarctic climate modeling with general circulation models of the atmosphere [1994, eng] **48-4699**
Simulation of ice accumulation at the surface of Antarctica [1993, eng] **48-4184**
Gentzis, T.
Hydrocarbon maturity indicators and Melville I. lithology [1993, eng] **48-3231**
George, B.
Norman Wells air terminal building [1994, eng] **48-3349**
George, D.
Russian arctic shelf hydrocarbon development to proceed [1993, eng] **48-1017**
George, R.M.
Freezing processes used in the food industry [1993, eng] **48-228**
Gerardi, J.J.
Capacitive ice detector for aircraft [1993, eng] **48-2638**
Laser-acoustic system for vertical profiling buried and surface ice [1990, eng] **48-4907**
Gerasimenko, T.V.
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra [1993, eng] **48-3607**
Gerasimov, A.S.
Permafrost preservation during global warming [1993, eng] **48-537**
Gerber, L.
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station [1994, eng] **48-5460**
Gerkema, E.
Time delay in the water-ice phase change during soil freezing [1993, eng] **48-887**
Germany. Scientific Committee on Antarctic Research and International Arctic Science Committee
German report to SCAR No.15, 1993 [1993, eng] **48-4243**
Gershenzon, IU.M.
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles [1993, rus] **48-2495**
Getsen, M.V.
Strategy of developing regions in the European northeast of the USSR [1990, rus] **48-5402**
Geurts, M.A.
Pleistocene sedimentology of Yukon glacial Lake Nisling [1993, fre] **48-1148**
Ghil, M.
Nonlinear paleoclimatic variability from Quaternary records [1993, eng] **48-4204**
Ghobrial, N.
Frost effects in soil-steel bridges [1992, eng] **48-2154**
Giakoumakis, S.G.
Mass transfer predictions in partially frozen soil [1994, eng] **48-4660**
Giardino, J.R.
Permafrost in the mountain ranges of North America [1993, eng] **48-5185**
Gibson, J.J.
Estimating evaporation in a subarctic watershed [1993, eng] **48-1152**
Runoff generation in a high boreal wetland in northern Canada [1993, eng] **48-1159**
Gibson, N.
On the origin and evolution of Australasian alpine cushion plants [1986, eng] **48-206**
Gibson, T.L.
Ice thickness measurement system for the Icing Research Tunnel calibration [1993, eng] **48-4889**
Gies, H.P.
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations [1994, eng] **48-4380**
Gifford, P.M.
Use of fly ash aggregates to enhance concrete freeze-thaw durability [1993, eng] **48-956**
Giger, W.
Occurrence and the fate of organic pollutants in the atmosphere [1993, eng] **48-219**
Gilichinskiĭ, D.A.
Classification of seasonally freezing soils by their thermal regime [1993, eng] **48-2276**
Methane and permafrost soil of the Kolyma-Indigir lowland [1993, eng] **48-1887**
Microbiological and biogeochemical research in permafrost: paleoecological implications [1993, eng] **48-518**
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change [1993, eng] **48-2272**
Viable microorganisms in permafrost [1993, eng] **48-881**
Gill, R.M.F.
Carbon monoxide hazard in sub-antarctic exploration [1994, eng] **48-5122**
Gill, W.N.
Thermal convection, morphological stability and the dendritic growth of crystals [1992, eng] **48-2894**
Gillbrand, P.
Improving the cold starting ability of an engine [1990, eng] **48-2202**
Gillespie, A.R.
Implication of debris-covered glaciers for snowline reconstruction [1994, eng] **48-5062**
Gillott, J.E.
Admixture effects on sulphur concrete durability [1990, eng] **48-3063**
Gil'manov, T.G.
Carbon storage in Russian forest tundra [1994, eng] **48-4822**
Gineris, D.J.
Hough transform algorithm for sea ice lead analysis: an evaluation [1993, eng] **48-4752**
Ginzburg, B.M.
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States [1992, rus] **48-1952**
Gioda, G.
Numerical and experimental study of the artificial freezing of sand [1994, eng] **48-4038**
Giorgi, F.
Analysis of the surface hydrology in a regional climate model [1994, eng] **48-2593**
Toward the simulation of the effects of the Great Lakes on regional climate [1993, eng] **48-1835**
Gipp, M.R.
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf [1994, eng] **48-5141**
Orientation of buried iceberg scours and other linear phenomena [1993, eng] **48-1830**
Girard, Y.
Planning for snow removal [1993, eng] **48-2044**
Girdiuk, G.V.
Atlas of the energy balance of the northern polar area [1992, rus] **48-1479**
Girovka, N.N.
Typification of winters according to the snow accumulation regime in the example of Zailiyskiy Alatau [1992, rus] **48-4454**
Gjessing, Y.
Air-ice interaction [1992, eng] **48-2899**
Chemical fractionation in sea ice and glacier ice [1993, eng] **48-1854**
Gjevik, B.
Model simulations of the tides in the Barents Sea [1994, eng] **48-3196**
Gladkov, V.P.
Recultivation of oil-contaminated soils [1990, rus] **48-5404**
Glazovskiĭ, A.
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia [1994, eng] **48-4828**
Glazovskiĭ, A.F.
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic [1994, eng] **48-3511**
Gleason, J.
Ancient climate from deuterium content of water in volcanic glass [1993, eng] **48-1500**
Glebko, Y.V.
New Russian arctic regulations versus CASPPR [1994, eng] **48-4292**
Gleitz, M.
Microbial response to experimental sea ice formation [1993, eng] **48-2412**
Phytoplankton variations in Weddell Sea ice formation [1993, eng] **48-2411**
Glen, J.W.
Studies of the nature of the ordering transformation in ice Ih [1991, eng] **48-945**
Glendening, J.W.
Influence of wind direction on ice-edge boundary layer structure [1994, eng] **48-4051**
Glenn, R.
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain [1993, eng] **48-358**
Glockner, P.G.
Prestressed ice as indigenous polar construction material [1991, eng] **48-4040**
Gloersen, P.
Arctic and antarctic sea ice, 1978-1987 [1993, eng] **48-1291**
Radiometry of arctic and antarctic sea ice, 1978-87 [1993, eng] **48-1314**
Glooschenko, W.A.
Northern Wetlands Study (NOWES): an overview [1994, eng] **48-4601**
Glotov, V.E.
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport [1992, rus] **48-4798**
Glotova, L.P.
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport [1992, rus] **48-4798**
Gluns, D.R.
Snowfall interception on branches of three conifer species [1991, eng] **48-1675**
Glynn, D.P.
Development of a portable ice-thickness measuring instrument [1994, eng] **48-3118**
Gobbi, G.P.
Mechanisms of antarctic stratospheric cloud formation [1993, eng] **48-339**
Gobel, T.M.
Atmospheric boundary layer and flow parallel to the ice edge [1990, eng] **48-3665**
Godin, S.
Lidar observation of polar stratospheric clouds [1994, eng] **48-5473**
Goeckel, D.L.
Microwave and optical measurements of sea ice [1993, eng] **48-1089**
Goetz, D.
Effects of deicing-salts on heavy metal mobility [1993, eng] **48-3235**
Goeyens, L.
Ammonium regeneration in the Scotia-Weddell Confluence area during Spring 1988 [1991, eng] **48-3736**
Gogineni, S.P.
Laboratory backscatter measurements over urea ice with a snow cover at Ku band [1993, eng] **48-2106**
Radar backscatter measurements from arctic sea ice during the fall freeze-up [1993, eng] **48-1700**
Radar backscatter measurements from simulated sea ice during CRRELEX '90 [1993, eng] **48-2645**
Radar backscatter signatures of thin sea ice in the central Arctic [1994, eng] **48-4648**
Young sea ice signatures in the deep arctic during the fall freeze-up [1993, eng] **48-1687**
Gogolev, E.S.
Deformations of shoreline slopes of reservoirs in permafrost regions [1992, rus] **48-4781**
Gohin, F.
First try at identification of sea ice using the three beam scatterometer of ERS-1 [1994, eng] **48-4471**
Identification of sea ice zones by satellite scatterometer [1994, eng] **48-3483**
Recognition of sea ice zones using ERS-1 scatterometer data [1993, eng] **48-1702**
Goia, L.M.
Overhead electric line poles protection against mechanical overloads [1993, eng] **48-844**
Protection of overhead line conductors against mechanical overloads [1993, eng] **48-837**
Golander, C.G.
Ice adhesion to rubber materials [1994, eng] **48-4252**
Gold, L.W.
Canadian Habbakuk Project; a project of the National Research Council of Canada [1990, eng] **48-311**
Goldberg, J.I.
Expulsive ice detector for aircraft or watercraft rigging [1993, eng] **48-4416**
Golden, S.M.
Evaluation of pre-extraction analytical holding times for nitroaromatic and nitramine explosives in water [1993, eng] **48-999**
Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil [1993, eng] **48-721**
Experiments with explosive-contaminated soil [1993, eng] **48-723**

Goldin, A.L.
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia [1994, eng] **48-3406**

Gol'dshtein, R.V.
Numerical modeling of the plane static deformation in ice cover [1993, eng] **48-4324**
Ship in compressive ice: preliminary model test results [1991, eng] **48-4891**

Goldsmith, R.A.
Archived time-series of Atlantic Ocean meteorological variables and surface fluxes [1979, eng] **48-3699**

Goldstein, R.M.
Monitoring the motion of an antarctic ice stream [1993, eng] **48-1669**

Gol'dstein, R.V.
Fracture mechanics in modeling of icebreaking capability of ships [1993, eng] **48-2683**

Goldstein, T.P.
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels [1994, eng] **48-4044**

Goldstone, J.
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton [1992, eng] **48-5097**

Goloian, B.IA.
Structures to protect river banks against ice erosion [1992, eng] **48-5518**

Golovanov, S.
Global vegetation model based on the climatological approach of Budyko [1993, eng] **48-1280**

Golubev, V.N.
Altitude variations in ice formation zones on glaciers in Central Tien Shan [1992, rus] **48-1395**

Golubkov, S.K.
River ice and the water quality in hydropower plant reservoirs [1994, eng] **48-5552**

Gomi, T.
Super-time-saving numerical method for melting/freezing problem [1993, eng] **48-889**

Goncharov, IU.M.
Building construction on permafrost foundations [1993, eng] **48-519**

Gondaira, Y.
Winter road surface control in the Hokuriku Region [1993, eng] **48-5082**

Gonfiantini, R.
Isotopic patterns in modern global precipitation [1993, eng] **48-1495**

Good ideas to improve winter maintenance
Good ideas to improve winter maintenance [1994, eng] **48-5300**

Goodarzi, F.
Hydrocarbon maturity indicators and Melville I. lithology [1993, eng] **48-3231**

Goodison, B.E.
Data needs for detection of climate change: some challenges [1993, eng] **48-1808**
Discrimination of a wet snow cover using passive microwave satellite data [1993, eng] **48-1340**
Recent observed trends and modelled interannual variability in Canadian snow cover [1993, eng] **48-2968**
Snow cover distribution as climatic change indicator [1993, eng] **48-1312**
Snow watch '92 [1993, eng] **48-1787**
"True snowfall": an evaluation of the double fence intercomparison reference gauge [1993, eng] **48-2934**

Goodman, R.H.
In situ burning of oil in ice leads [1986, eng] **48-4173**

Goodrich, L.E.
Insulation of buried water lines in cold regions [1994, eng] **48-3378**

Goodwin, C.R.
EAMES bibliography [1982, eng] **48-2918**

Goodwin, E.J.
Proposed field deployment program for monitoring icing events [1993, eng] **48-835**

Gorbachev, V.N.
Soil cover of the southern taiga in Central Siberia [1992, rus] **48-4149**

Gorbunov, A.P.
Geocryology in Mt. Tianshan [1993, eng] **48-5206**
Studying columnar ice [1992, rus] **48-4462**

Gordon, A.L.
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines [1993, eng] **48-2244**
Weddell Sea exploration from Ice Station [1993, eng] **48-2079**

Gordon, H.B.
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model [1994, eng] **48-5372**

Gordon, J.
Ice exposures in rock glaciers [1994, eng] **48-5179**

Gore, D.B.
Changes in the Vestfold Hills ice boundary [1993, eng] **48-3247**

Gorelik, IA.
Mechanisms of layer structures growing during ground freezing [1993, eng] **48-520**

Goriachkin, S.V.
Pool and renovation time of soil carbon in northern taiga and tundra of European Russia [1993, eng] **48-2306**

Goriaev, V.E.
Snow retention plough [1992, eng] **48-4069**

Gorman, M.R.
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic [1994, eng] **48-3511**

Gorman, R.
Fifteen years of arctic shipping—the lessons learned [1994, eng] **48-4309**

Górniak, A.
Pedological changes at the edge of a Spitsbergen glacier [1992, eng] **48-2432**

Gorodetskii, S.E.
Design values of strength characteristics of frozen saline soils [1993, eng] **48-1102**

Gorzelska, K.
Tropospheric aerosol chemistry over Canadian wetlands [1994, eng] **48-4627**

Gosink, J.J.
Vertical distribution of bacteria in Arctic sea ice [1993, eng] **48-2314**

Gosink, J.P.
Solute segregation during soil freezing and solute and heat transport in permafrost [1991, eng] **48-3706**

Gosink, T.A.
Aqueous ethanol as an ice-drilling fluid [1993, eng] **48-3598**
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers [1990, eng] **48-4686**
Fluids for use in deep ice-core drilling [1994, eng] **48-5360**

Goss, K.U.
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C [1993, eng] **48-4025**

Gosselin, M.
Influence of light on metabolism of ice algae in Resolute [1993, eng] **48-1082**
Nutrient enrichment of high arctic ice algae from Resolute [1993, eng] **48-1083**

Gossmann, H.
Snow cover development on Potter Peninsula [1994, eng] **48-3482**

Goto, I.
New methods to study snowfall using remote sensing [1993, eng] **48-2874**

Goto, K.
Reaching toward overcoming snow in Arai City [1986, jpn] **48-25**

Goto, N
Viewpoint on the sidewalk snow removal plan in Takikawa City [1989, jpn] **48-700**

Goto, S.
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils [1993, eng] **48-4978**

Goto, Y.
Snow depth in forests with various openness grades of canopies [1993, jpn] **48-3180**

Goto-Azuma, K.
Leaching of ions from the surface of glaciers in western Svalbard [1993, eng] **48-1859**
Temporal changes in chemical stratigraphy of snow cover [1993, eng] **48-2832**

Gotovtsev, S.P.
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water [1992, rus] **48-4783**
Mining impact on permafrost hydrology [1993, eng] **48-522**

Goutail, F.
Polar stratospheric cloud spectrometry in the Arctic [1994, eng] **48-5469**
Total nitrogen dioxide at the arctic polar circle since 1990 [1994, eng] **48-5482**

Gouze, S.C.
Meteorological evaluation of the proposed Alaska transmission line routes [1982, eng] **48-4229**
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route [1982, eng] **48-4230**

Govi, M.
Example of a low-temperature-triggered landslide [1993, eng] **48-3192**

Gow, A.J.
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] **48-1899**
Ice-core studies in the western Weddell Sea [1992, eng] **48-3771**
Preliminary depth-age scale of the GISP2 ice core [1994, eng] **48-5407**
Radar backscatter measurements from simulated sea ice during CRRELEX '90 [1993, eng] **48-2645**
Reassessment of the in-situ dielectric constant of polar firn [1993, eng] **48-3739**
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2 [1992, eng] **48-3770**

Grabs, W.E.
Determination of discharge with fluorescence tracers in the Nepal Himalayas [1993, eng] **48-2768**
Measuring service for snow and glacier hydrology in Nepal [1993, eng] **48-2767**
Objectives and prevention methods for glacier lake outburst floods (GLOFs) [1993, eng] **48-2798**
Precipitation-runoff model in the Langtang Khola basin [1993, eng] **48-2787**

Grace, J.
Pinus sylvestris growth at Scottish tree line [1994, eng] **48-5018**

Gradinger, R.
Life cycle of a calanoid copepod in the Weddell Sea [1993, eng] **48-594**
Sea ice biological studies in the Arctic [1993, eng] **48-3319**

Graf, W.
Ronne Ice shelf core and textural evolution of deforming ice [1992, eng] **48-238**
Ronne Ice Shelf firn core isotopic and chemical investigations [1991, eng] **48-9**

Gramuzov, E.M.
Interaction of hovercraft icebreaker platforms with ice cover [1994, eng] **48-3952**
Theoretical modelling of ice resistance of ships [1994, eng] **48-5629**

Granberg, A.G.
Importance of marine transportation for Russian Arctic [1993, eng] **48-182**

Granberg, H.B.
Observations of sea ice ridging in the Weddell Sea [1993, eng] **48-1057**
Recent developments of the geographic snow information system [1993, eng] **48-756**

Granbom, P.O.
Condensed gases under winter conditions: a study for the rescue services [1992, swe] **48-4719**

Grandell, J.
Scatterometer measurements of arctic sea ice at C-band [1993, eng] **48-1701**

Grant, C.L.
Evaluation of pre-extraction analytical holding times for nitroaromatic and nitramine explosives in water [1993, eng] **48-999**
Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil [1993, eng] **48-721**
Materials for the analysis of volatile organic compounds in soil [1994, eng] **48-5414**
Preextraction holding times for nitroaromatics and nitramines in soils [1994, eng] **48-5415**

Grant, L.O.
Cloud microphysics during wintertime Coloradan storms [1986, eng] **48-3259**
Cloud system supercooled liquid water structure [1987, eng] **48-3076**

Gras, J.L.
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry [1993, eng] **48-230**
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle [1993, eng] **48-229**

Gray, D.M.
Geometry of patchy snowcovers [1993, eng] **48-2932**
Numerical investigation of infiltration into frozen soil [1993, eng] **48-888**
Temporal variation in snowcover area during melt in prairie and alpine environments [1993, eng] **48-1157**

Gray, J.M.N.T.
Dry snow pack model [1994, eng] **48-3249**

Gray, J.T.
Karst morphology in a permafrost environment [1993, eng] **48-385**
Postglacial emergence of Ungava Peninsula, Quebec [1993, eng] **48-2205**

Greatorex, A.
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof [1994, eng] **48-3413**
Ventilating attics to minimize icings at eaves [1994, eng] **48-3860**

Grebenets, V.I.
Climate warming and the heat conditions of bases in northern cities [1994, eng] **48-4169**

Grechishchev, S.E.
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model [1994, eng] **48-3403**
Model of frost heaving in cryogenic soils [1993, eng] **48-386**

Greeley, N.H.
Permafrost mapping using GRASS [1993, eng] **48-5212**

Green, K.W.
Arctic policy bibliography [1991, eng] **48-4939**

Greenberg, J.M.
Effect of amorphous ice on comet thermal history [1993, eng] **48-753**

Greenfield, R.J.
Radar signature of a 2.5-D tunnel [1993, eng] **48-1513**

Greenhill, D.
Remote sensing of Great Britain snow cover [1994, eng] **48-4708**

Greening, M.V.
Pressure ridging effect on Arctic Ocean noise spectra [1994, eng] **48-3143**
Sea ice cracking as an acoustic index of seabed reflectivity [1993, eng] **48-5128**

Spatial and source level distributions of ice cracking in the Arctic Ocean [1994, eng] **48-3142**

Greenwald, S.
Ice and snow melt [1986, eng] **48-4274**

Greenwood, D.R.
Stratigraphy of an Eocene swamp in Axel Heiberg I. [1993, eng] **48-3132**

Grégoire, M.
Plant development on a subarctic coast [1993, eng] **48-1383**

Gregor, D.J.
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic [1994, eng] **48-4278**

Gregory, B.
Mountain and arctic warfare from Alexander to Afghanistan [1989, eng] **48-1932**

Gregory, G.L.
Tropospheric aerosol densities over central Canada [1994, eng] **48-4626**

Gregory, M.
McMurdo Ice Shelf meltwater chemistry [1994, eng] **48-3038**

Greisert, K.
Iceload investigations on insulators and aerial warning balls for overhead lines [1993, eng] **48-833**

Grenfell, T.C.
Comment on paper by St. Germain et al [1993, eng] **48-3006**
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. [1993, eng] **48-1310**
Radiometry of the Weddell Sea during winter and spring [1994, eng] **48-4412**

Grennberg, K.
Insulated compost containers for cold climate [1994, eng] **48-3977**

Grenney, W.J.
Winter highway maintenance data, Vol.2 [1993, eng] **48-1847**

Greuell, W.
Numerical model of the West Greenland ice sheet [1994, eng] **48-3519**

Greve, R.
Mathematical analysis of granular flow avalanches [1993, eng] **48-2399**

Gridley, N.C.
Environmental aspects of river ice [1993, eng] **48-215**

Gridnev, S.M.
Permafrost zone well cementing [1992, eng] **48-4073**

Griffen, C.W.
Cement incorporating polymers as a phase change agent [1986, eng] **48-1520**

Griffith, M.
Role of ice-binding proteins in frost tolerance of winter rye [1993, eng] **48-1254**

Grigor'ev, S.B.
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea [1992, rus] **48-2742**

Grimitlin, M.I.
On the influence of gravitational forces on space building air circulation schemes [1994, eng] **48-3859**

Grimsrud, D.T.
Indoor climate and design criteria [1994, eng] **48-3842**

Grinev, V.G.
Solution to problems in mining ore deposits in the North [1992, rus] **48-652**

Grishkan, I.B.
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia [1993, eng] **48-2301**

Grobe, H.
Late Quaternary record of sea-level changes in the Antarctic [1993, eng] **48-1007**
Mineralogy of Arctic Ocean surface sediments [1994, eng] **48-5637**

Grogan, W.P.
User's guide: subsurface drainage for military pavements [1992, eng] **48-4751**

Groisman, P.IA.
Correlation of North American snowfall with temperature changes [1993, eng] **48-1791**
Snow cover effect in spring [1994, eng] **48-2553**
Snowfall trends over the U.S. and Canada [1994, eng] **48-2892**

Grönvall, H.
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea [1994, eng] **48-3467**

Grootes, P.
Preliminary depth-age scale of the GISP2 ice core [1994, eng] **48-5407**

Grootes, P.M.
Comparison of oxygen isotope records from the GISP2 and GRIP Greenland ice cores [1993, eng] **48-1900**
Interpreting continental oxygen isotope records [1993, eng] **48-1496**
Paleoclimate/ice sheet dynamics from antarctic ice cores [1993, eng] **48-4201**
Taylor Dome ice-core study [1992, eng] **48-2626**

Grosfeld, K.
Bottom melting on FRIS: results from different methods [1992, eng] **48-237**
Determination of ice-shelf bottom melting by time-domain reflectometry [1993, eng] **48-2398**
New results of structural investigations in the central part of the FRIS [1992, eng] **48-236**
Temperature and mass balance of the Filchner and Ronne Ice Shelves [1993, ger] **48-1113**

Gross, G.W.
Oxidation-reduction reactions in growing ice crystals, comment and reply [1991, eng] **48-778**

Gross, W.J.
Utility of passive observations for operational sea ice modelling [1993, eng] **48-4330**

Grossmann, S.
Microbial response to experimental sea ice formation [1993, eng] **48-2412**

Grosso, S.A.
Geological processes and geocryogenic effects in the central Andes [1992, eng] **48-2010**

Grosswald, M.G.
Melting history of the Late Weichselian ice sheet [1993, eng] **48-4178**

Grout, R.
Ice management in high latitude scientific ocean drilling [1994, eng] **48-3987**

Grove, J.M.
Glacial geological evidence for the medieval warm period [1994, eng] **48-4970**
Recent research on the Calderone glacier, Abruzzo, Italy [1993, ita] **48-4102**

Grubbs, W.T.
Spectroscopy of glycerol supercooling thermodynamics [1994, eng] **48-2998**

Grübler, W.
Snow-plow [1992, eng] **48-1367**

Grumbine, R.W.
Thermodynamic predictability of sea ice [1994, eng] **48-5164**

Grün, E.
High-velocity impacts of dust particles in low-temperature water ice [1993, eng] **48-2349**
Simulation of cometary regolith development [1993, eng] **48-754**
Thermal behavior of rocky material in contact with ice [1994, eng] **48-4154**

Grundy, W.M.
Nitrogen ice spectra with application to Triton [1993, eng] **48-2381**

Grunes, M.R.
Sea ice scenes from polarimetric SAR data [1992, eng] **48-3241**

Gruzdev, A.N.
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange [1992, eng] **48-3764**
Total ozone global field oscillations [1992, eng] **48-2245**

Grygier, J.
Disaggregation models of seasonal streamflow forecasts [1993, eng] **48-2955**

Gu, R.C.
Validation of cold climate lake temperature simulation [1993, eng] **48-2736**

Gu, T.X.
Study on the general thermal parameters of the frozen NaCl soil [1993, chi] **48-1436**
Thermal conductivity and its determination technique for building insulation materials [1993, chi] **48-1437**

Gu, W.B.
Heat transfer prediction of two-phase closed thermosyphon with freezing [1993, eng] **48-891**

Gu, W.Z.
Stable isotope data on alpine catchments in Xinjiang [1993, eng] **48-2800**

Gu, Z.W.
Permafrost transformations in China [1993, eng] **48-387**
Satellite imaging of permafrost after forest fire in China [1993, eng] **48-1730**
Spaceborne photography of permafrost changes in burned forests [1993, eng] **48-421**

Guan, Z.F.
Thaw settlement of railway foundations in permafrost swamp regions [1993, eng] **48-5 56**

Gubanov, V.E.
Variability in the hydrophysical fields near drifting icebergs and safe navigation [1993, rus] **48-1904**

Gubin, S.V.
Structure formation dynamics in tundra cryogenic nongleyed soils (tundra cryozems) [1993, eng] **48-2293**

Gubler, H.
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps [1993, eng] **48-411**
Models to improve comprehension of avalanche mechanics [1992, fre] **48-4047**

Gudkovich, Z.M.
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period [1992, rus] **48-1912**

Gudleifsson, B.E.
Ice encasement as a component of winter kill in herbage plants [1993, eng] **48-1259**

Gudmandsen, P.
Radar observation of an arctic polynya under summer conditions [1994, eng] **48-3461**

Gudmestad, O.T.
Technological challenges for hydrocarbon production in the Barents Sea [1993, eng] **48-125**

Gudmundsson, B.J.
Snow removal apparatus and method [1989, eng] **48-4075**

Gudmundsson, M.T.
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991 [1991, eng] **48-5292**
Thermal output of a subglacial Icelandic caldera [1993, eng] **48-1363**

Guénette, C.
Evaporation of crude oil and diesel from beach sediment [1993, eng] **48-3715**

Guers, F.
Ski having a variable width upper surface [1990, eng] **48-2260**
Ski having a variable width upper surface [1990, eng] **48-2265**

Guetter, P.J.
Simulated climatic changes: results of the COHMAP climate-model experiments [1993, eng] **48-2977**

Guevorkian, S.G.
Analysis of permafrost solifluction stages [1993, eng] **48-474**

Guglielmin, M.
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy) [1993, eng] **48-362**
Winter testing for permafrost identification [1993, ita] **48-1133**

Guilizzoni, P.
Limnological research in Terra Nova Bay area [1992, eng] **48-4767**

Guiot, J.
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum [1993, eng] **48-3560**

Gukov, A.IU.
On the study of bottom fauna in Anabarskiy Gulf of the Laptev Sea [1992, eng] **48-2604**

Gukov, V.P.
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North [1989, rus] **48-906**

Gulati, K.C.
Calibration of a portable ice strength testing apparatus [1993, eng] **48-91**
Design concepts for Sakhalin offshore production platforms [1993, eng] **48-139**
Submerged ice rubble friction properties [1992, eng] **48-1541**

Guliaev, V.P.
Failure mechanics criteria for field testing large-sized structures [1990, rus] **48-50**

Gültepe, I.
Aerial measurements of cirrus clouds dynamics [1993, eng] **48-958**

Gundestrup, N.S.
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] **48-1899**
GRIP deep drilling camp [1994, eng] **48-5362**
Hole liquids and gaskets for the ISTUK deep ice core drill [1994, eng] **48-5359**
UCPH borehole logger [1994, eng] **48-5349**

Guneriussen, T.
ERS-1 SAR for snow monitoring [1993, eng] **48-1729**

Gunn, J.T.
Regional current measurements in the western Weddell Sea [1992, eng] **48-3776**

Günter, T.
Snow cover of an area according to observation data from stations and satellites [1992, eng] **48-1768**

Guo, D.X.
Engineering geology of the Wudaoliang oil pump station [1992, chi] **48-1491**
Establishment and layout of the station [1992, chi] **48-1423**
Frost penetration and heave in subgrades under channel linings [1993, chi] **48-4500**
Frost penetration and heave under canals with sloping sides [1993, eng] **48-5207**
Geographic boundary of permafrost in the northeast of China [1993, chi] **48-4488**
Geographic southern boundary of permafrost in the northeast of China [1993, eng] **48-5226**
Guide to the permafrost and environment of the Qinghai-Xizang Plateau [1993, eng] **48-2131**
Loess and its climate records in Kunlun Shan region since the late Pleistocene [1993, eng] **48-504**
Permafrost desertification in China [1993, eng] **48-401**
Solifluction on permafrost slopes [1993, eng] **48-388**

Guo, X.D.
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing [1993, chi] **48-4590**
Periglacial period and Pleistocene natural environment of Western Mountains of Beijing [1993, eng] **48-5208**

Guo, X.M.
Similitude modeling of frozen soil excluding overburden [1992, chi] **48-1419**
Simulation of soil freeze-thaw mechanics [1993, eng] **48-509**

Guo, Y.
On surface energy balance over the northern wetlands, pt.2 [1994, eng] **48-4616**
Surface energy balance over northern wetlands, pt.1 [1994, eng] **48-4615**

Guo, Z.X.
Porous slab mixtures to prevent frost damage to roads [1993, chi] **48-4506**
Research of porous slab structures for preventing frost damage of roads [1993, eng] **48-5266**

Gupta, V.
Crack nucleation in polycrystalline columnar ice due to anisotropic grains [1994, eng] **48-5585**
Crack nucleation mechanism in saline ice [1994, eng] **48-4567**
Fracture toughness of fresi water ice crystals [1992, eng] **48-1552**
Measurement of cleavage strength in ice crystals by a laser spallation technique [1994, eng] **48-3787**

Gürer, I.
Snow avalanche disaster of winter 1992 in southeastern Anatolia, Turkey [1993, eng] **48-3173**
Snow avalanche disaster of winter 1992 in southeastern Anatoliya, Türkiye [1993, eng] **48-766**

Guretskii, V.V.
Hydrographic atlas of the southern ocean [1992, eng] **48-3766**

Gurevich, V.M.
Characteristics of cryogenic weathering of hard rocks, such as dolerites [1992, rus] **48-4784**

Gurgul, H.
Transparency changes in waters of Admiralty Bay [1992, eng] **48-539**

Gur'ianov, I.E.
Optimal parameters of internally pressurized opening in permafrost [1993, eng] **48-521**

Gurjar, S.
Alberta Concrete Patch Evaluation Program [1987, eng] **48-4402**

Gurnell, A.M.
How many reservoirs? An analysis of flow recessions from a glacier basin [1993, eng] **48-2403**
Hydrogeochemistry of an alpine proglacial stream [1994, eng] **48-3258**
Sampling standards for arctic sediment transfer studies [1988, eng] **48-2567**
Snow and glaciers in water balance and river flow [1990, eng] **48-1579**
Suspended sediment load and sources in alpine glacier basins [1990, eng] **48-1592**

Gusarova, S.P.
Fluctuations of the atmospheric circulation and climate changeability of polar regions [1994, eng] **48-3849**

Gusev, A.A.
Natural air exchange in buildings exposed to the northern conditions [1994, eng] **48-3875**

Gustafson, K.
Methods and materials for snow and ice control on Swedish roads and runways [1993, eng] **48-1193**

Gustafsson, G.O.
Compound to increase the frost-resistance of hardened concrete [1991, eng] **48-2252**

Gustafsson, N.
New functional concepts for marine snowband formation [1994, eng] **48-5004**

Gustavsson, T.
Unique cold start method used on Volvo's new 12L unit injector diesel engine [1994, eng] **48-3112**

Guthrie, R.S.
Relic permafrost landforms related to wind factors [1993, eng] **48-481**

Gutierrez, J.
Exact solution for the Stefan problem in different geometries [1994, eng] **48-2573**

Gutknecht, D.
Entering the era of distributed snow models [1994, eng] **48-4706**

Guttman, N.B.
Aircraft icing environment in wintertime, low ceiling conditions [1985, eng] **48-5100**

Ha, H.W.
Ice cover thickness and air temperature [1994, eng] **48-5599**

Haakensen, N.
Glaciers of Norway [1993, eng] **48-4030**

Haapala, J.
Temperature and salinity statistics for the northern Baltic Sea 1961-1990 [1994, eng] **48-4949**

Haas, R.
Effect of highway geometry on distress of asphalt pavements in cold climates [1993, eng] **48-5079**
Pavement crack routing and sealing [1993, eng] **48-5067**

Haas, R.C.G.
Stabilized recycled plastics as high performance asphalt binder modifiers [1993, eng] **48-5075**

Haase, J.
X-ray analysis of water chemisorbed on metal [1994, eng] **48-4979**

Habbe, K.A.
Origin of South German Alpine Foreland drumlins [1992, eng] **48-2521**

Habben, C.E.
Recycling of aircraft deicing fluids [1994, eng] **48-5142**

Haberle, R.M.
Ice cloud formation in the Martian atmosphere [1993, eng] **48-1617**
Seasonal behavior of water on Mars [1992, eng] **48-5044**

Habu, Y.
Electric-heater roof snow melter [1993, jpn] **48-1986**
Roof snow sliding system with electric heater [1993, jpn] **48-1987**

Hächler, H.
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus [1993, ger] **48-1615**

Haddad, K.D.
NOAA coastal land cover classification system [1993, eng] **48-1097**

Haddock, R.M.M.
Device for controlling snow movement on roofs [1993, eng] **48-1735**

Hadley, J.L.
Effects of wind on needle desiccation of timberline conifers [1983, eng] **48-3346**
Physiological response to controlled freezing of attached red spruce branches [1993, eng] **48-2452**
Red spruce bud mortality at Whiteface Mountain, New York [1993, eng] **48-1217**

Haeberli, W.
Application of BTS-measurements for modelling mountain permafrost distribution [1993, eng] **48-399**
Climatic change and debris flow activity in high-mountain areas [1989, eng] **48-2571**
Glaciers and the environment [1992, eng] **48-1136**
Glaciological basis of ice-core drilling on mid-latitude glaciers [1994, eng] **48-2711**
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene [1994, eng] **48-2710**
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps [1993, eng] **48-389**
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps [1990, eng] **48-3034**
Possible effects of climatic change on the evolution of alpine permafrost [1989, eng] **48-2570**
Research on permafrost and periglacial processes in mountain areas—status and perspectives [1993, eng] **48-5184**
Retreat of alpine glaciers and the global greenhouse effect [1994, ger] **48-5099**

Haefliger, M.
Spaceborne/ground truth radiometric ice sheet correlations [1993, eng] **48-1299**

Haefner, H.
SAR data for snow cover determination in mountainous regions [1994, eng] **48-3479**
Snowmelt runoff forecasting studies in Himalayan basins [1993, eng] **48-2775**
Water resources, snow and ice [1991, eng] **48-4868**

Haehnel, R.B.
Snowdrift modeling in the CRREL wind tunnel [1993, eng] **48-2938**

Hafildason, H.
Paleoceanography of Greenland, Iceland and Norwegian seas [1993, eng] **48-2879**

Hage, W.
Crystallization kinetics of water below 150 K [1994, eng] **48-2999**

Hagelstam, L.
Development of multipurpose icebreaker and offshore construction vessel [1993, eng] **48-113**
Multipurpose icebreaker and off-hore construction vessel [1993, eng] **48-4345**

Hagen, J.O.
Glacier mass balance estimated by radioactive layers [1994, eng] **48-5173**
Ice-core drilling on Norwegian and Svalbard glaciers [1994, eng] **48-2716**
Subglacial investigations at Bondhusbreen, Folgefonni, Norway [1993, eng] **48-2882**

Hagen, M.
Polarimetric radar studies of atmospheric ice particles [1994, eng] **48-5134**

Hagen, R.A.
Applied marine geodetic research in polar regions [1994, eng] **48-5422**

Hagiwara, T.
Studies on the driver's visual point. Chapter 8. Visual behavior of drivers in blowing snow [1991, jpn] **48-4238**
Visibility reduction caused by snow and a driver's eye movement [1993, jpn] **48-1967**

Haidvogel, D.B.
Coupled ice-ocean model of the Beaufort and Chukchi Seas [1993, eng] **48-791**

Haigh, J.D.
Stratospheric ozone and solar radiative climate forcing [1994, eng] **48-5323**

Hain, S.
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas [1994, eng] **48-3039**

Haines, R.
International Ice Patrol '94 [1994, eng] **48-2760**

Haino, H.
Experiment on using overflow lines for snow melting [1988, jpn] **48-663**

Häkkinen, S.
Arctic source for the Great Salinity Anomaly in the Greenland Sea [1993, eng] **48-976**

Hald, M.
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications [1994, eng] **48-3806**

Haldar, A.K.
Wind and ice load monitoring on a test line [1993, eng] **48-839**

Hall, A.
Interaction between an ice sheet and its atmospheric boundary layer [1993, eng] **48-3586**

Hall, B.L.
Minor expansion of alpine glaciers in Wright Valley, Antarctica [1992, eng] **48-2625**

Hall, D.K.
Active and passive microwave remote sensing of frozen lakes for regional climate studies [1993, eng] **48-1795**
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. [1993, eng] **48-1297**
Analysis of visible and microwave satellite data for snow mapping in Alaska [1993, eng] **48-2937**
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm [1993, eng] **48-2927**
Observations on glaciers in the eastern Austrian Alps using satellite data [1994, eng] **48-4929**
Pasterze Glacier, Austria [1994, eng] **48-4928**

Hall, F.F., Jr.
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment [1994, eng] **48-4276**

Hall, J.W.
Tillage variation effects on river basin runoff [1993, eng] **48-3140**

Hall, K.
Rock moisture data from Livingston I. [1993, eng] **48-5051**

Hall, K.J.
Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering [1993, eng] **48-390**
Wind-blown particles as weathering agents? An antarctic example [1989, eng] **48-2105**

Hall, P.O.J.
Arctic sediments (Svalbard): consumption and microdistribution of oxygen [1994, eng] **48-5026**

Hall, R.D.
Properties of glacial deposits in Wyoming mountain soils [1993, eng] **48-2421**
Stratigraphy of glaciated terrain in Montana [1983, eng] **48-3340**

Hall, W.D.
Topographic effects on storm precipitation development [1994, eng] **48-2510**

Hallbrucker, A.
Crystallization kinetics of water below 150 K [1994, eng] **48-2999**
Thermodynamic continuity between glassy and normal water [1994, eng] **48-4818**

Hallet, B.
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point [1993, eng] **48-391**
Physics of liquid water in frozen powders and soils [1993, eng] **48-5209**

Hallett, J.
Experimental study of growth and phase change of polar stratospheric cloud particles [1992, eng] **48-3698**
Role of ice crystals in cirrus radiative properties [1994, eng] **48-4600**

Hallikainen, M.
Application of ERS-1 active microwave instrumentation data to remote sensing of snow [1992, eng] **48-2066**
Effect of land-cover type and season in microwave remote sensing of snow [1993, eng] **48-1707**
Microwave remote sensing of snow using radar and radiometer [1994, eng] **48-3480**
Scatterometer measurements of arctic sea ice at C-band [1993, eng] **48-1701**

Halsey, L.A.
Canadian bog landforms in relation to permafrost patterns [1994, eng] **48-3501**

Hama, J.
New phase of ice above 70 GPa [1994, eng] **48-4718**

Hambrey, M.J.
Cenozoic glacial record of the Prydz Bay continental shelf [1991, eng] **48-3630**
Cenozoic sedimentary and climatic record, Ross Sea region [1993, eng] **48-3292**

Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments [1991, eng] 48-3629
Vendian geology of Svalbard [1993, eng] 48-1777

Häme, T.
Application of ERS-1 active microwave instrumentation data to remote sensing of snow [1992, eng] 48-2066
LANDSAT detection of northern Finland vegetation change [1994, eng] 48-4997

Hamel, J.
Warming of a frozen paper roll [1993, eng] 48-984

Hamerlynch, E.P.
Subnivean development of a snowbank geophyte [1994, eng] 48-3503

Hamill, P.
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols [1993, eng] 48-3730

Hamilton, H.R.
Regional and temporal patterns of total solutes in the Saskatchewan River basin [1993, eng] 48-63
Total solutes loads and geochemical yields in the Saskatchewan River basin [1993, eng] 48-64

Hamilton, J.D.
Flux of natural gas from wetland ponds to the atmosphere [1994, eng] 48-4606

Hamilton, P.B.
Occurrence of green algae on Ellesmere I. [1994, eng] 48-5131

Hamilton, S.
Ice exposures in rock glaciers [1994, eng] 48-5179

Hamilton, T.D.
Alaskan valley fluvial response to Quaternary climatic changes [1993, eng] 48-929

Hammer, C.U.
Dating ice cores [1993, eng] 48-1122
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] 48-1899

Hamon, D.M.
New diesel low temperature operability test—AGELFI filtration test [1994, eng] 48-3088

Han, C.G.
Durability of high strength concrete: study on frost resistance [1993, kor] 48-3996

Han, J.K.
BZXJ super light ice core drill [1994, eng] 48-5334
Concentration of soluble impurities in Collins Ice Cap, King George I. [1993, chi] 48-2028

Han, U.
Study of the thermal state in the permafrost at the Sejong Station, Antarctica [1993, eng] 48-5210

Hanada, T.
Report on historical changes of road snow removal technique in Akita Prefecture [1993, jpn] 48-1970

Hanbali, R.M.
Accident analysis of ice control operations [1993, eng] 48-1764

Hancock, W.H.
Instrumentation for the PICO deep ice coring drill [1994, eng] 48-5332

Handa, Y.P.
Lattice dynamics of clathrate hydrates [1993, eng] 48-2350

Haney, J.C.
Summertime synoptic variability of frontal systems in the northern Bering Sea [1994, eng] 48-4052

Hanisch, J.
Objectives and prevention methods for glacier lake outburst floods (GLOFs) [1993, eng] 48-2798

Hanke, H.
Traffic safety and transport efficiency in winter [1993, eng] 48-1192

Hanley, R.M.
Solar heated driveway apparatus [1993, eng] 48-4957

Hanlon, W.E.
Thermal protectiveness of electrically heated clothing and boots [1993, eng] 48-4753

Hanna, A.J.
Initial performance permafrost slopes: Norman Wells pipeline project, Canada [1994, eng] 48-3372
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. [1994, eng] 48-3384

Hannuki, T.
Construction estimate of runway on East Ongul I. [1993, jpn] 48-1184
Construction material for the new central building at Showa Station [1993, jpn] 48-2877
Construction of ice domes at Asuka Station [1993, eng] 48-1182
On the creep tests of ice dome model in a low temperature laboratory [1993, jpn] 48-2002
Snowdrifts and the differential settlement of buildings (1) [1993, jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2) [1993, jpn] 48-2001

Hansen, A.
Investigation of forces incurred during snow plowing [1993, eng] 48-1170

Hansen, B.L.
Deep core drilling in ice [1994, eng] 48-5326
New short borehole logging tool [1994, eng] 48-5348
UCPH borehole logger [1994, eng] 48-5349

Hansen, C.J.
Thermal model for the seasonal nitrogen cycle on Triton [1992, eng] 48-1607

Hansen, C.N.
Deicing compositions [1986, eng] 48-4273

Hansen, E.
Foundation collapse in permafrost at Thule Air Base, 1953- 1993 [1994, eng] 48-3975

Hansen, E.K.
Steel reinforcements in asphalt pavements [1994, eng] 48-4915

Hansen, E.S.
Lecanora geophila and *Arctpeltis thuleana* (Lichenes) from the Siberian Arctic [1993, rus] 48-4227

Hansen, E.W.
Alaska's mineral industry, 1992 [1993, eng] 48-1139
Alaska's mineral industry 1993: a summary [1994, eng] 48-3114

Hansen, K.E.
Safe water for villages of the North Slope Borough [1994, eng] 48-3376

Hansen, M.R.
Durability of high performance concrete [1993, eng] 48-2672
Durability of high performance concrete [1993, eng] 48-3538

Hansen, S.B.
Hole liquids and gaskets for the ISTUK deep ice core drill [1994, eng] 48-5359

Hansman, R.J., Jr.
Close-up analysis of aircraft ice accretion [1993, eng] 48-4885
Deterministic multi-zone ice accretion modeling [1991, eng] 48-4872
Experimental investigation of passive infrared ice detection for helicopter applications [1991, eng] 48-4871
Passive infrared ice detection technique for helicopter applications [1991, eng] 48-1959

Hanson, C.L.
Evaluation of precipitation gauges for measuring precipitation on mountainous watersheds [1990, eng] 48-1568

Hanson, D.R.
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations [1994, eng] 48-3151
Reactions of halogen species on ice surfaces [1993, eng] 48-3060
Simulation of stratospheric heterogeneous nucleation processes [1993, eng] 48-2471

Hanssen, J.E.
Effects of polluted atmospheric ice on power line conductivity [1993, eng] 48-1829

Hansson, H.
Pump freeze corer for recent sediments [1993, eng] 48-1527

Hansson, M.E.
Greenland ice core methanesulfonate records [1993, eng] 48-619

Hantula, L.
Snowmobile accidents in Lapland [1992, eng] 48-4965

Hanvey, P.M.
Drumlin geomorphology in western Ireland [1992, eng] 48-2518

Hanyu, A.
Paving material intended to prevent low temperature cracking [1993, eng] 48-5070

Hao, C.J.
Antarctic sea ice and ENSO event [1993, eng] 48-4842
Antarctic sea ice variations [1993, chi] 48-2029

Haoulani, H.
Thermal regime of discontinuous permafrost in Quebec [1993, eng] 48-879
Two-dimensional Stefan problem around a cooled buried cylinder [1993, eng] 48-5211

Hara, F.
Abrasion of hydraulic structures caused by movement of river ice [1994, eng] 48-5624
Adfreeze bond strength between sea ice and materials used for offshore structures [1994, eng] 48-3988
Arch formation of ice floes at bridge structures [1993, eng] 48-140
Arch formation of ice floes at structures [1993, jpn] 48-1040
Conditions of arch formation by ice floes at bridge piers [1994, eng] 48-5625
Development of the sink-and-float type ice boom [1993, jpn] 48-1046
Movement of ice floes near a river mouth on the Okhotsk Sea coast [1993, jpn] 48-1049
Pollution of fallen snow in urban areas [1994, eng] 48-3966
Preventive measures against pack ice damage to marine resources and fishery facilities [1994, eng] 48-3951
Regional economy along the Okhotsk Sea in Hokkaido [1994, eng] 48-3992
Strength of river ice in the high snow accumulation region of Hokkaido, Japan [1994, eng] 48-5581
Study on drift ice control utilizing arch formation of ice floes [1993, eng] 48-4353

Hara, T.
Classification of distress of asphalt pavements [1993, eng] 48-5078

Harada, H.
Electric-heater roof snow melter [1993, jpn] 48-1986
Estimating the weight of a snow cover using only meteorological factors [1993, eng] 48-2850
Roof snow sliding system with electric heater [1993, jpn] 48-1987

Harbinson, B.F.
Stabilized recycled plastics as high performance asphalt binder modifiers [1993, eng] 48-5075

Harbor, J.M.
Glacial geomorphology: modeling processes and landforms [1993, eng] 48-4940

Hardaway, M.
Scene generation for smart weapons operability enhancement [1993, eng] 48-690

Hardiman, K.C.
Effect of lateral ice pressure on ship resistance [1993, eng] 48-112

Harding, D.J.
Accuracy of satellite laser altimetry of ice sheets [1994, eng] 48-4831

Hardy, D.R.
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada [1993, eng] 48-2972

Hardy, J.P.
Permeability of temperate snow: preliminary links to microstructure [1993, eng] 48-2939
Snowpack stratigraphy evolution at forested and open sites [1993, eng] 48-2946

Hargrave, B.T.
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean [1994, eng] 48-4019

Harimaya, T.
Computer database for falling snowflakes [1993, eng] 48-2820

Harington, C.R.
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America [1985, eng] 48-2720

Harjula, A.
Friction and hull coatings in ice operations [1994, eng] 48-4294
Method for changing characteristics of ship and hull form of ice-breaking ship [1992, eng] 48-5522
MSV Fennica, new operational profile for an icebreaker [1994, eng] 48-4305

Harland, W.B.
Vendian geology of Svalbard [1993, eng] 48-1777

Harms, U.
Non-simultaneous failure based on the random walk method [1993, eng] 48-141

Harper, J.T.
Glacier fluctuations on Mount Baker, U.S.A., 1940-90 [1993, eng] 48-2418

Harr, M.E.
Spatial variability of falling weight deflectometer data: a geostatistical analysis [1994, eng] 48-4909

Harries, J.E.
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica [1993, eng] 48-624

Harrington, B.G.
Mesoscale atmosphere icing event, March 1991 [1993, eng] 48-2964

Harris, C.
Active layer detachment slides, Ellesmere I. [1993, eng] 48-2207
Active layer landslides on Ellesmere I. [1993, eng] 48-392
Modelling of gelifluction and frost creep [1993, eng] 48-2020
Periglacial of Great Britain [1994, eng] 48-5022

Harris, G.P.
Field test comparison of calcium magnesium acetate to salt [1993, eng] 48-1272

Harris, G.S.
Quick connect-disconnect coupling for snow plow [1990, eng] 48-2258

Harris, R.K.
Beaufort Sea coastal fish studies: overview nd bibliography [1993, eng] 48-40

Harris, S.A.
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion [1993, eng] 48-5053
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory [1993, eng] 48-393
Permafrost in the mountain ranges of North America [1993, eng] 48-5185

Harrison, J.A.
Pavement response and pavement performance studies at the new Denver International Airport [1994, eng] 48-4916

Harrison, W.D.
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. [1994, eng] 48-5161
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica [1993, eng] 48-3572
Variegated Glacier, 1973-1981. Data file report-1981 [1988, eng] 48-3331

Harriss, R.C.
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990 [1994, eng] **48-4618**
Carbon monoxide and methane over Canada: July-August 1990 [1994, eng] **48-4620**
Hart, A.L.
Determination of the flow and impact pattern of ice pieces under ice breaking ships [1994, eng] **48-5630**
Hart, J.K.
Icelandic glaciotectonic deformations [1994, eng] **48-4985**
Use of computer-aided learning packages in glaciology and glacial geology [1993, eng] **48-3602**
Hart, K.M.
Occurrence and the fate of organic pollutants in the atmosphere [1993, eng] **48-219**
Hartel, M.J.M.
Trash bag GPS—adapting GPS equipment to sub-arctic environments [1990, eng] **48-2470**
Hartl, P.
Information extraction from ERS-1 SAR data in antarctic research [1994, eng] **48-3475**
Hartman, R.K.
Gridded snow water equivalent estimation using ground-based and airborne snow data [1993, eng] **48-2930**
Hartmann, D.L.
Theoretical support for the Airborne Antarctic Ozone Experiment. Final report [1992, eng] **48-3818**
Hartmann, R.
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique [1994, eng] **48-3440**
Hartwell, S.I.
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms [1993, eng] **48-1846**
Hartzmann, R.J.
Hydrologic and water quality characteristics of a degrading open-system pingo [1993, eng] **48-457**
Haruyama, J.
Effect of amorphous ice on comet thermal history [1993, eng] **48-753**
Harwood, D.M.
Cenozoic glacial history of Antarctica—A correlative synthesis [1992, eng] **48-921**
Geology of Mount Murphy volcano [1994, eng] **48-3299**
Harwood, R.S.
Springtime stratospheric water vapour in the southern hemisphere as measured by MLS [1993, eng] **48-625**
Hase, M.
Asphalt viscoelasticity under high and low temperatures [1993, ger] **48-607**
Hasebe, M.
Snow and road traffic noise [1988, jpn] **48-659**
Hasegawa, I.
Microwave backscattering characteristics of snow [1993, eng] **48-1711**
Hasegawa, T.
Avalanche hazards and their weather patterns in the Tohoku District [1993, jpn] **48-1969**
Probe for acidity of falling snow and deposited snow [1993, jpn] **48-1964**
Hashimoto, T.
Energy budget comparison of snowmelt rates in a deciduous forest and an open site [1993, eng] **48-2827**
Hashiyama, H.
Prediction of daily snowfall depth obtained from neuro computing method [1993, jpn] **48-3179**
Hasholt, B.
Erosion, debris flows and environment in mountain regions [1992, eng] **48-4405**
Sediment sources and delivery in a drainage basin in Greenland [1992, eng] **48-4406**
Haskell, T.G.
Flexural waves on Erebus Glacier Tongue [1994, eng] **48-5174**
Hasnain, S.I.
Solutes and suspended sediments in Ganga meltwaters [1993, eng] **48-2802**
Hassan, M.A.
Lidar of ice crystals associated with noctilucent clouds [1994, eng] **48-4694**
Hasselmann, K.
ERS-1 SAR observations of swell travelling into the ice [1994, eng] **48-3457**
Hastenrath, S.
Toward the satellite monitoring of glacier changes on Mount Kenya [1993, eng] **48-1330**
Hastie, D.R.
Exchange of nitrous oxide within the Hudson Bay lowland [1994, eng] **48-4613**
Hastings, S.J.
Carbon flux in unmanaged arctic ecosystems [1993, eng] **48-1884**
Hatanaka, M.
Measurement of horizontal stress in soil by freezing [1990, eng] **48-2268**
Hatori, A.
Economics of snow use (storing vegetables in snow) [1988, jpn] **48-655**
Hatsuda, T.
Detection of a straight metal tube by snow search radar [1993, eng] **48-1713**
Hattori, K.
Effect of deicers in relation to meteorological conditions [1989, jpn] **48-704**
Hattori, M.
Characteristics of heat exchanger for melting of piled snow [1993, eng] **48-876**
Hattori, T.
Synoptic observation of sea ice [1990, jpn] **48-4877**
Hatzikiriakos, S.G.
Permafrost melting and stability of offshore methane hydrates subject to global warming [1994, eng] **48-4938**
Relationship between global warming and methane gas hydrates in the earth [1993, eng] **48-1836**
Stability of permafrost and gas hydrates subject to global warming [1993, eng] **48-4359**
Haug, P.
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta [1994, eng] **48-3370**
Haugen, L.E.
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992 [1993, eng] **48-4551**
Haugen, R.K.
Ground temperature measurement at a permafrost site [1993, eng] **48-5199**
Influence of lake morphometry on ice dates [1990, eng] **48-4401**
Permafrost mapping using GRASS [1993, eng] **48-5212**
Hauptmann, E.G.
Thermal conductivity of pipe insulations during condensation [1993, eng] **48-872**
Hauser, R.G.
Adverse weather test site selection study [1992, eng] **48-4749**
Hausladen, A.
Cold-hardiness-specific glutathione reductase isozymes in red spruce [1994, eng] **48-4835**
Purification of enzymes specific for spruce cold hardiness [1994, eng] **48-4834**
Hausmann, M.
Spectroscopic measurement BrO in the arctic troposphere [1992, eng] **48-2636**
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert [1993, eng] **48-3055**
Hautaniemi, H.
Airborne electromagnetic mapping of ice thickness in the Baltic Sea [1994, eng] **48-5592**
Havard, J.M.
Snow melting heater mats [1990, eng] **48-2263**
Haverkamp, D.
Dynamic local thresholding technique for sea ice classification [1993, eng] **48-1694**
Havström, M.
Arctic soil mineralization following simulated climate change [1993, eng] **48-1230**
Hawkins, J.D.
Altimeter Sea Ice Workshop, Feb. 15-16, 1990 [1990, eng] **48-1481**
Cloud screening in AVHRR digital data over arctic regions [1993, eng] **48-1353**
Data set of arctic AVHRR imagery for the study of leads [1993, eng] **48-1355**
Movement and decay of the tabular iceberg A-24 [1993, eng] **48-328**
Report on polar regions AVHRR workshop [1993, eng] **48-1293**
Hawksworth, D.L.
Lichenicolous fungi of Greenland [1990, eng] **48-67**
Hayakawa, N.
Analysis of powder-snow avalanches using three-dimensional topographic data [1993, eng] **48-2835**
Comparison of Japanese snow removal technologies [1993, eng] **48-2872**
New methods to study snowfall using remote sensing [1993, eng] **48-2874**
Snow transport in an open channel on mild slope configuration [1993, jpn] **48-3188**
Hayashi, H.
Current status and future prospects of studless tires [1989, jpn] **48-671**
Hayashi, M.
Frost damage to coastal concrete structures in Japan [1986, eng] **48-5313**
Simple temperature estimation method in asphalt mixture layers [1993, eng] **48-5080**
Sør Rondane Mountains Late Cenozoic glacial history [1992, eng] **48-920**
Hayashi, Y.
Characteristics of heat exchanger for melting of piled snow [1993, eng] **48-876**
Snow and ice countermeasures on highways [1987, jpn] **48-277**
Hayashiguchi, S.
Experimental study of ice forces on multi-legged structures [1990, jpn] **48-4678**
Ice forces on inclined circular structures—theoretical and experimental studies [1993, jpn] **48-1037**
Hayes, M.I.B.
Existence of two H-bonds of different strengths in ice and the possible implications [1994, eng] **48-5383**
Hayhoe, H.N.
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland [1994, eng] **48-4611**
Erodibility of frozen soil in eastern Canada [1992, eng] **48-2366**
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget [1993, eng] **48-3141**
Haykin, S.
Fractal characterization of radar echoes from icebergs [1993, eng] **48-933**
Hayley, D.W.
Engineering a 300 km winter haul road in Canada's Arctic [1994, eng] **48-3374**
Maintenance of a railway grade over permafrost in Canada [1989, eng] **48-4135**
Hayman, T.
Detection of oil under ice by ultrasound using multiple element phased arrays [1986, eng] **48-4176**
Haynes, F.D.
Effects of foundation insulation and thermosyphons on permafrost [1993, eng] **48-883**
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska [1994, eng] **48-5409**
Seeking solutions for icing at dams and hydro plants [1993, eng] **48-2086**
Thermosyphon condensate return device [1990, eng] **48-2261**
Hayward, R.
Ice model tests of a cylindrical structure [1993, eng] **48-1842**
Hayward, T.J.
Low frequency arctic under-ice reverberation, pt.1 [1993, eng] **48-75**
Low frequency arctic under-ice reverberation, pt.2 [1993, eng] **48-76**
Low-frequency Arctic under-ice reverberation pt.3 [1993, eng] **48-43**
Hazen, D.
Close-up analysis of aircraft ice accretion [1993, eng] **48-4885**
Hazen, B.
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska [1994, eng] **48-3390**
Frost heave predictions for Alaskan soils [1993, eng] **48-394**
Uplift resistance of pipelines buried in frozen ground [1993, eng] **48-442**
He, G.
Role of clouds and ozone on spectral ultraviolet-B radiation [1994, eng] **48-4385**
He, M.
Improving of microwave remote sensing of sea ice [1993, eng] **48-1715**
He, P.
Dynamic strain characteristics of saturated frozen silt [1994, eng] **48-3394**
Dynamic strength and deformation properties of saturated frozen silt [1993, chi] **48-1447**
Influence of various factors on dynamic elastic modulus of frozen silt [1992, chi] **48-1420**
He, Y.X.
Effect of lake proximity on permafrost formation [1993, eng] **48-485**
Heacock, T.
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery [1993, eng] **48-1356**
Head, E.J.
Physiology of High Arctic sea ice algae [1990, eng] **48-3242**
Head, R.D.
Earthquake Alaska—are we prepared [1994, eng] **48-5035**
Heathershaw, A.D.
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front [1992, eng] **48-5322**
Hebbeln, D.
Moisture for northern ice sheet growth [1994, eng] **48-5123**
Surface sediment distribution in the Fram Strait [1993, eng] **48-4089**
Heber, U.
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo* [1993, eng] **48-1255**
Heckman, S.T.
Application of an explicit microphysics mesoscale model to a regional icing event [1994, eng] **48-2326**
Numerical simulation of an icing event during WISP-90 [1992, eng] **48-4748**
Hedstrom, K.S.
Coupled ice-ocean model of the Beaufort and Chukchi Seas [1993, eng] **48-791**
Heeney, P.L.
Hazardous waste strategy for communities in Canada's Northwest Territories [1994, eng] **48-3356**
Heginbottom, J.A.
Circumarctic map of permafrost and ground ice conditions [1993, eng] **48-5213**

New permafrost and ground ice map for the National Atlas of Canada [1993, eng] 48-396

Heidam, N.Z.
Arctic aerosols in Greenland [1993, eng] 48-3916

Heidland, K.
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf [1992, eng] 48-248
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry [1994, eng] 48-5423
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis [1994, eng] 48-3444

Heidrich, B.
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery [1991, eng] 48-2
Extraction of antarctic topographic glaciological features from ERS-1 SAR data [1994, eng] 48-3438

Heikkinen, O.
Proceedings [1992, eng] 48-2514
Third International Drumlin Symposium—introduction [1992, eng] 48-2515

Heiland, W.K.
Twin rinse columns for freeze concentration of rinsable concentrates [1991, eng] 48-2224

Heim, R.R., Jr.
Correlation of North American snowfall with temperature changes [1993, eng] 48-1791
Global snow cover monitoring: an update [1993, eng] 48-1101

Hein, D.K.
Evaluation of frost action mitigation procedures for highly frost-susceptible soils [1992, eng] 48-2114
Evaluation of frost action mitigation procedures for highly frost-susceptible soils [1993, eng] 48-5077
Seasonal variations in pavement strength [1994, eng] 48-4911
Seasonal variations in pavement strength factors [1993, eng] 48-5088

Heinermann, P.H.
Underwater photic environment of two subarctic Icelandic lakes [1993, eng] 48-1831

Heininen, L.
Changing circumpolar north: opportunities for academic development [1994, eng] 48-4403

Heinke, G.W.
Hazardous waste strategy for communities in Canada's Northwest Territories [1994, eng] 48-3356

Heintzenberg, J.
Airborne particles in snow [1993, eng] 48-2386
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard [1993, eng] 48-3912
Spitsbergen atmospheric aerosols related to arctic air pollution [1994, eng] 48-2916

Heiny, J.S.
Stratigraphy of glaciated terrain in Montana [1983, eng] 48-3340

Helbling, E.W.
Ultraviolet radiation effects on marine phytoplankton photosynthesis [1994, eng] 48-4388

Helfenstein, P.
Anomalous-scattering region on Triton [1992, eng] 48-990

Hellmann, J.H.
Hull for ice breaking ship [1993, eng] 48-5525
Ice breaker [1990, eng] 48-1938
Icebreaking ship [1993, eng] 48-1734

Hellum, C.
Ice algae and kisel algae distribution [1992, eng] 48-2907

Hemley, R.J.
Novel H2-H2O clathrates at high pressures [1993, eng] 48-1757
Thermal properties of high pressure ice [1993, eng] 48-922

Hempel, L.
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland [1993, eng] 48-4267

Henderson, B.
Canada re-opens northern frontier to oil and gas exploration [1993, eng] 48-1019

Henderson, B.G.
Recent history of Mars water cycle [1993, eng] 48-1618

Henderson, G.S.
Ozone depletion during polar sunrise [1993, eng] 48-3051

Henderson, L.
Diagnostic modelling studies of the Iceland-Faeroe front [1993, eng] 48-3751

Henderson, M.R.
Aircraft icing environment in wintertime, low ceiling conditions [1985, eng] 48-5100

Hendy, C.H.
Younger Dryas Age advance of Franz Josef Glacier [1994, eng] 48-4926

Henneken, E.A.C.
Daily energy balance of the Greenland ice sheet [1994, eng] 48-3517

Henning, M.W.
Alaska's mineral industry 1993: a summary [1994, eng] 48-3114

Henrich, R.
Pleistocene evolution of Scandinavian ice sheets [1994, eng] 48-3750

Henry, B.E.
Nitric oxide/sulfuric acid reactions at stratospheric temperatures [1994, eng] 48-3149

Henry, G.H.R.
Open-top devices for manipulating field temperatures in tundra ecosystems [1993, eng] 48-880
Patterns of plant distribution within two polar desert landscapes [1994, eng] 48-3507

Herkens, H.
Design of icebreaker bows [1993, eng] 48-104
Icebreaker [1989, eng] 48-4085

Herland, E.A.
Real time ice monitoring demonstration in the Baltic Sea [1994, eng] 48-3474

Herman, A.W.
Instruments for measuring subice algal profiles and productivity *in situ* [1993, eng] 48-3201

Herman, J.R.
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991 [1993, eng] 48-190
Satellite spectrometry of global ozone variations [1994, eng] 48-3146

Hermans, C.
Stratospheric chemistry over the Swiss Alps [1994, eng] 48-5485

Hermanson, M.H.
Trace metal accumulation in arctic sediment cores [1993, eng] 48-5009

Hermansson, K.
Stretching frequencies in high pressure ice [1993, eng] 48-214

Herndon, W.C.
Graph theoretical analysis of water clusters [1991, eng] 48-3762

Heron, R.
Barnes Ice Cap fluctuations, Baffin I., Canada [1993, eng] 48-2419
Decay of a High Arctic lake-ice cover: observations and modelling [1994, eng] 48-5165

Héroux, J.A.
Liquid waste management CFS Alert [1994, eng] 48-3380

Herren, E.
Glaciers of the Swiss Alps 1987/88 and 1988/89 [1993, ger] 48-1211

Herzfeld, U.C.
Statistical evaluation of antarctic glacier radar altimetry [1993, eng] 48-1303

Hess, G.
Seismic survey in arctic regions [1993, eng] 48-155

Hess, M.
Modelling cirrus optical properties [1993, eng] 48-2990

Heuer, A.H.
Amelioration of ice layer effects on spectroscopic detector performance [1993, eng] 48-1012

Heumann, K.G.
Gas chromatography of organic compounds in arctic seawater [1993, eng] 48-2049
Heavy metal traces in antarctic ice and snow [1993, eng] 48-2382

Hewitt, A.D.
Aerosol scavenging by falling snow [1993, eng] 48-2958
Concentration stability of four volatile organic compounds in soil subsamples [1994, eng] 48-5411
Determination of chlorinated organic compounds in soils [1993, eng] 48-798
Dynamic study of common well screen materials [1993, eng] 48-719
Dynamic study of common well screen materials [1994, eng] 48-2453
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms [1993, eng] 48-1006
Losses of trichloroethylene from soil during sample collection, storage and laboratory handling [1994, eng] 48-5149
Materials for the analysis of volatile organic compounds in soil [1994, eng] 48-5414
On-site gas chromatography detection of trichloroethylene [1993, eng] 48-1092
Screening for metals by X-ray fluorescence [1994, eng] 48-4656
Soil sampling for trichlorethylene determination [1994, eng] 48-3835
Soil sampling for volatile organic compounds [1993, eng] 48-1955
Spiked soil preparation for organic compound analysis [1994, eng] 48-4954
Vapor fortification in soil sampling for contaminants [1993, eng] 48-1956
Vapor-fortified QA/QC samples for the analysis of volatile organic compounds [1994, eng] 48-5408
Vapor-fortified QA/QC soil subsamples for the analysis of volatile organic compounds [1994, eng] 48-3266

Hewitt, J.R.
Temperature compensation techniques and technologies—an overview [1991, eng] 48-3672

Hewitt, K.
Glaciohydrological features of the Karakoram Himalaya [1993, eng] 48-2791
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme [1993, eng] 48-2771

Hewitt, K.J.
Global ice loads on arctic structures interpreted from foundation displacements [1994, eng] 48-3363

Heydorn, A.
Salt, sand, or chemicals [1993, eng] 48-2025

Heyes, A.
Methane emissions from wetlands, southern Hudson Bay lowland [1994, eng] 48-4604

Heyke, H.E.
Solubility of carbon dioxide in solid water [1993, ger] 48-3036

Heymsfield, A.J.
Microphysical structures of stratiform and cirrus clouds [1993, eng] 48-1880

Heywood, L.
Explosives for avalanche control [1993, eng] 48-2648

Hibben, S.G.
How the Cold Regions database covers polar oceanography [1994, eng] 48-5093

Hibler, W.D., III
Importance of convective mixing in seasonal ice margin simulations [1993, eng] 48-978
Interannual and climatic characteristics of an ice ocean circulation model [1993, eng] 48-4209
Satellite observations of oceans and ice [1988, eng] 48-1467

Hickcox, D.H.
Temperature extremes [1994, eng] 48-3325

Hickey, C.A., Jr.
Thermal protectiveness of electrically heated clothing and boots [1993, eng] 48-4753

Hickin, E.J.
Pleistocene glaciation in Seymour Valley, British Columbia [1993, eng] 48-971

Hickman, G.A.
Capacitive ice detector for aircraft [1993, eng] 48-2638
Laser-acoustic system for vertical profiling buried and surface ice [1990, eng] 48-4907

Hicks, R.G.
Wheel track rutting due to studded tires [1992, eng] 48-2088

Hideshima, Y.
Interactions between ice and the surface of a rockfill dam [1994, eng] 48-3957

Hieronymi, E.
Ice impact on ship hulls [1993, eng] 48-116

Higashiura, K.
Winter roads in Nagano Prefecture [1988, jpn] 48-572

Higashiura, M.
Areal investigation of drifting snow on Tsugaru Plain, Japan [1993, eng] 48-2844

Higashiyama, Y.
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles [1993, jpn] 48-1989

Hightower, E.C.
Device for heating aircraft deicer fluid [1987, eng] 48-4419
Heating aircraft deicer fluid [1987, eng] 48-4418

Higuchi, K.
Nepal-Japan cooperation in research on glaciers and climates of the Nepal Himalaya [1993, eng] 48-2769
Winter in Shiribeshi [1989, jpn] 48-715

Hill, B.
Hi-E model ice—improving the elastic modulus of columnar model ice [1994, eng] 48-5580

Hill, E.G.
Aerodynamic effects of aircraft deicing/anti-icing fluids [1991, eng] 48-3695

Hill, M.C.
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts [1992, eng] 48-1927

Hillamo, R.E.
Size distribution of atmospheric trace elements at Dye 3, pt.1 [1993, eng] 48-3892
Size distributions of atmospheric trace elements at Dye 3, pt.2 [1993, eng] 48-3893

Hilton, R.W.
Test plan for military skis and bindings [1993, eng] 48-1770

Hiltunen, E.
Simulation of the effect of wind on clothing by measurements and calculations [1993, eng] 48-4902

Himeno, K.
Simple temperature estimation method in asphalt mixture layers [1993, eng] 48-5080

Hincha, D.K.
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo* [1993, eng] 48-1255

Hindman, E.E.
Undergraduate field course in meteorology and atmospheric chemistry [1993, eng] 48-2772

Hindmarsh, R.C.A.
Estimating ice-sheet response to climate change [1992, eng] 48-784

Modelling the dynamics of ice sheets [1993, eng] 48-3138
Qualitative dynamics of marine ice sheets [1993, eng] 48-4182

Hinkel, K.M.
Summer thermal regimes in Alaskan permafrost [1993, eng] 48-397

Hinkley, T.K.
Rock-forming metals and Pb in modern Alaskan snow [1993, eng] 48-3641

Hinze, H.
Bathymetric charts of the Weddell Sea [1992, eng] 48-239
Charting the bathymetry of Weddell Sea, Antarctica [1994, eng] 48-5424

Hinzman, L.D.
Application of oxygen-18 tracer techniques to arctic hydrological processes [1993, eng] 48-944
Hillslope hydrology in an arctic setting [1993, eng] 48-398
Improving estimates of snowpack water equivalent using double sampling [1993, eng] 48-2940
Use of spatially distributed data to model arctic hydrologic processes [1993, eng] 48-410

Hirai, K.
Effect of water absorption on frost damage of autoclaved lightweight concrete [1982, eng] 48-5375
External design of houses in a cold and snow-fall region in the Tohoku District [1993, jpn] 48-1982

Hirakawa, K.
Critical polygon size for ice-wedge formation in Svalbard and Antarctica [1993, eng] 48-434
Sør Rondane Mountains Late Cenozoic glacial history [1992, eng] 48-920

Hirano, A.
Electrically heatable windshield [1991, eng] 48-1733

Hirano, Y.
Mechanics of a turning snow ski [1994, eng] 48-4716

Hirasawa, M.
Field investigation of spray icing on offshore experimental structure [1990, jpn] 48-4668

Hirasawa, Y.
Experimental study on melting process of ice containing conductive copper solids [1993, eng] 48-894

Hirase, T.
Interactions between ice and the surface of a rockfill dam [1994, eng] 48-3957

Hirata, T.
Effect of heat conductor plates on ice formation near a wall [1993, eng] 48-864
Long-term variations in ice concentration off Hokkaido [1993, jpn] 48-1053
Spectral extinction coefficient of sea ice [1993, jpn] 48-1078

Hirayama, K.
Field study of ice control structure on river rapids [1994, eng] 48-5551

Hirayama, Z.
Construction material for the new central building at Showa Station [1993, jpn] 48-2877

Hirokawa, Y.
Durable surface coatings for rubber articles e.g. wiper blades and seal packings [1993, eng] 48-5523

Hivon, E.G.
Distribution of saline permafrost in the Northwest Territories, Canada [1993, eng] 48-1015
Time dependent displacement of piles in saline permafrost [1993, eng] 48-357

Hlavac, K.A.
Controller valve for deicer [1992, eng] 48-1368

Ho, C.J.
Control of ice melting by temperature perturbation [1993, eng] 48-600

Hoad, S.P.
Pinus sylvestris growth at Scottish tree line [1994, eng] 48-5018

Hoang, P.
Compilation of geotechnical information from the short range radar sites into a public domain database [1994, eng] 48-3389

Hobbie, J.E.
Arctic ecosystem response to change [1993, eng] 48-2123

Hobbs, P.V.
Aerosol-cloud interactions [1993, eng] 48-1879
Airborne measurements of gases and particles from an Alaskan wildfire [1993, eng] 48-1096
Airborne studies of ocean-particle-cloud-interactions in the Arctic [1993, eng] 48-2646
Further analyses of the Climax cloud-seeding experiments [1993, eng] 48-2369
Ice particle concentrations in cumuliform clouds [1994, eng] 48-4478

Hochschild, V.
Geomorphology and thawing dynamics at Potter Peninsula [1994, eng] 48-3486

Hodge, G.R.
Freezing stress tolerance of hardy and tender families of loblolly pine [1993, eng] 48-1883

Hodgson, D.A.
Pleistocene ice sheet variations in central Canada [1994, eng] 48-4946

Hoeber, H.
Boundary-layer observations over water and arctic sea-ice during on-ice flow [1994, eng] 48-4649

Hoelzle, M.
Application of BTS-measurements for modelling mountain permafrost distribution [1993, eng] 48-399
DC resistivity soundings 1992 in north-western Svalbard [1993, eng] 48-2701

Hoenke, K.A.
Recent research on alternative deicers at Chevron [1992, eng] 48-2089

Höfer, H.C.
Micromorphology of till from Shackleton Range [1993, eng] 48-4269

Hoffman, V.L.
Snow plow attachment device [1990, eng] 48-2259

Hoffmann, H.E.
Icing relevant parameters from sounding of stratiform clouds [1990, ger] 48-4862

Hofmann, D.J.
Record low ozone at the South Pole in the spring of 1993 [1994, eng] 48-4440

Hogan, A.W.
Examining the influence of snow cover on morning air temperature [1993, eng] 48-2948
Modification of physical properties of natural obscurants [1993, eng] 48-3032
Objective estimates of airborne snow properties [1994, eng] 48-3784

Högberg, N.
Rapid natural decline of upper montane forests in the Swedish Scandes [1989, eng] 48-3429

Högda, K.A.
ERS-1 SAR for snow monitoring [1993, eng] 48-1729

Hoger, S.E.
Test plan for military skis and bindings [1993, eng] 48-1770

Hoham, R.W.
Snow algae and other microbes in several alpine areas in New England [1993, eng] 48-2941

Hojo, K.
Fluid forces acting on and the velocity of ice floes [1993, eng] 48-4356

Hokari, K.
Withstand voltage and flashover performance of iced insulators [1993, eng] 48-5[illegible]7

Hokari, M.
Draft for a guide on safety measures for sidewalk snow removal equipment [1989, jpn] 48-677

Hökedal, J.
Optical measurements [1992, eng] 48-2906

Hokkaido Development Agency (Hokkaido kaihatsucho)
Cold region development technology in Hokkaido [1989, eng] 48-4236

Hokkaido Development Bureau
Research trends in snow and roads [1987, jpn] 48-276
Wrestling with snow and cold countermeasures at the Hokkaido Development Bureau [1988, jpn] 48-577

Hokuriku Regional Construction Bureau
Ninth Five-Year Plan at the Hokuriku Regional Construction Bureau [1988, jpn] 48-579
Summary of the road report system of the Hokuriku Regional Construction Bureau [1989, jpn] 48-669

Holder, G.K.
Determination of the flow and impact pattern of ice pieces under ice breaking ships [1994, eng] 48-5630

Holdsworth, G.
Ice core indications of Northern Hemisphere methane variations [1993, eng] 48-3254
Teleconnections and glacier mass balance [1988, eng] 48-2545

Holecz, F.
Correction of radiometric distortions in snow cover imagery [1993, eng] 48-1685

Holladay, J.S.
Electromagnetic ice thickness sensor fo[illegible] marginal ice zone [1993, eng] 48-178
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude [1993, eng] 48-1004

Holland, C.
Arctic exploration and development, c. 500 B.C. to 1915: an encyclopedia [1994, eng] 48-3337

Holland, D.M.
Numerical simulation of arctic sea-ice and ocean circulation [1994, eng] 48-4843
Thermodynamic-dynamic snow sea-ice model [1993, eng] 48-4210

Holland, E.A.
Ecosystem and physiological controls over methane production in northern wetlands [1994, eng] 48-4612

Holland, W.H.
Rear-mounted scraper [1991, eng] 48-2227

Hollender, F.J.
Polar continental margins: studies off East Greenland [1993, eng] 48-2149

Holm, A.
Photogrammetric analysis of icebergs in the Barents Sea [1993, eng] 48-128

Holm, E.
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991 [1993, eng] 48-4530
Environmental radioactivity in the Arctic and Antarctic; proceedings [1993, eng] 48-4510

Holm-Hansen, O.
Ultraviolet radiation effects on marine phytoplankton photosynthesis [1994, eng] 48-4388

Holman, R.A.
Video monitoring of nearshore ice in southern Lake Michigan [1994, eng] 48-4162

Holmér, I.
Protective clothing against cold [1992, eng] 48-4968

Holmgren, J.
Rain-induced water percolation in snow as detected using heat flux transducers [1993, eng] 48-284

Holmlund, P.
Antarctic landscape formation by mountain glaciation [1994, eng] 48-[illegible]987
Radar soundings of basal ice, East Antarctica [1993, eng] 48-1341
Radar soundings of the Bailey Ice Stream [1992, eng] 48-251

Holroyd, E.W., III
Refinements in the remote sensing of snow-covered area [1990, eng] 48-2426

Holt, B.
Geophysical Processor System: automated analysis of ERS-1 SAR imagery [1994, eng] 48-3451

Holt, C.B.
Antifreeze proteins [1994, eng] 48-4659

Holton, J.R.
Comparison of observed and modeled stratospheric water vapor [1993, eng] 48-636

Holtz, T.R., Jr.
Quaternary paleoceanography of the Arctic Ocean [1994, eng] 48-5640

Homand, F.
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles [1994, eng] 48-3223
Limestone pore structure and frost resistance [1993, eng] 48-3193

Hondoh, T.
Formation process of clathrate air-hydrate crystals in polar ice sheets [1992, jpn] 48-3219
Glaciological survey of clathrate hydrates [1993, jpn] 48-3176

Hong, M.
Developing conditions, amounts and distributions of glaciers in Gongga Mountains [1993, chi] 48-4587

Honjo, S.
Ice-Ocean Environmental Buoys deployment in 1991-92 [1993, eng] 48-3752

Hope, A.S.
Spectral, spatial and temporal characteristics of arctic tundra reflectance [1993, eng] 48-934

Hope, G.
On the origin and evolution of Australasian alpine cushion plants [1986, eng] 48-206

Hopkins, D.M.
Science research needs on federally protected Alaskan lands [1990, eng] 48-1274

Hopkins, M.A.
On the structure of three-dimensional shear flows [1993, eng] 48-2085
Polygonal particle simulations of surface ice flows in river channels [1992, eng] 48-3788

Hopkins, T.S.
Amplification of tidal currents by overflow on the Iceland- Faeroe Ridge [1994, eng] 48-3944

Hopper, J.F.
Stab[illegible] lead isotope ratios in Alaskan arctic aerosols [1993, eng] 48-3898

Horibe, A.
Freezing of water flow in a horizontal cooled tube [1993, eng] 48-865

Horiguchi, K.
Experimental studies on ice segregation and the modes of frost heaving [1993, eng] 48-5195
Osmotic model of ice segregation [1993, eng] 48-859
Rate equations during ice segregation [1992, jpn] 48-3214
Relationship between ice intrusion temperature and confined pressure [1993, eng] 48-5196

Horii, M.
Analysis of the traffic accident data base [1993, jpn] 48-1974
Characteristics of winter traffic accidents in the Tohoku Region [1989, jpn] 48-710

Horita, K.
Crystal growth rates in polar firn [1993, eng] 48-2854

Horita, N.
Influences of regulation of studded tire in Hokkaido [1993, eng] 48-1200

AUTHOR INDEX

Horjen, I.
Case study of trash rack icing using a numerical model [1994, eng] 48-5602
Ice accretion on trash racks in supercooled flows. Part 1: icing [1994, eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing [1994, eng] 48-5597
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7) [1993, eng] 48-3066

Horn, A.B.
Infrared study of simulated polar stratospheric cloud chemistry [1994, eng] 48-3811

Horne, T.A.
Avoiding aircraft icing [1993, eng] 48-2881

Horrigan, T.O.
Ground temperature measurement at a permafrost site [1993, eng] 48-5199

Horrigmoe, G.
Finite element analysis of ice sheet indentation [1993, eng] 48-167
Modelling ductile behavior of columnar ice using computational plasticity [1994, eng] 48-5565

Hoshi, N.
Recycling systems for waste materials of reconstruction of streets in Sapporo City [1993, eng] 48-5076

Hoshiai, T.
Overview and perspectives of the study on ice algae and its associated ecosystem [1993, eng] 48-1071

Hoshino, M.
Investigation of the roof shape and roofing materials of wooden houses in Sapporo [1993, jpn] 48-1990
On the adfreeze properties of damaged roofing [1993, jpn] 48-1992
Study on the adfreeze properties of roofing materials [1993, jpn] 48-1991

Hoshino, T.
Snow and ice countermeasures in 1985 [1986, jpn] 48-17

Hosseinmostafa, A.R.
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992 [1993, eng] 48-1690
Laboratory backscatter measurements over urea ice with a snow cover at Ku band [1993, eng] 48-2106

Hostetler, S.W.
Analysis of the surface hydrology in a regional climate model [1994, eng] 48-2593
Toward the simulation of the effects of the Great Lakes on regional climate [1993, eng] 48-1835

Hostland, C.
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia [1994, eng] 48-3351

Hottelet, C.
Application of the ETH snow model to three basins of different character in central Europe [1994, eng] 48-4713
Simulation of snowpack and discharge in an alpine karst basin [1993, eng] 48-2789

Hou, X.H.
Air pollution and the air purity conditions in Wudaoliang region [1992, chi] 48-1486

Hou, Z.J.
Development of refrigerating cycling bath [1993, chi] 48-1460
Measuring heat conductivity of frozen soil [1993, eng] 48-464
Method determining the thermal conductivity of frozen soil with the heat flow meter [1992, chi] 48-1414
Model of migration potential for moisture migration during soil freezing [1993, eng] 48-453
Model of migration potential for moisture migration during soil freezing [1992, chi] 48-1413

Houle, G.
Rooting variations in subarctic reforestation tree species [1993, eng] 48-4811

Houssais, M.N.
Importance of convective mixing in seasonal ice margin simulations [1993, eng] 48-978

Houze, R.A., Jr.
Aircraft survey of Hurricane Norbert pt.3 [1993, eng] 48-2465

Hovan, J.M.
Pavement response and pavement performance studies at the new Denver International Airport [1994, eng] 48-4916

Hover, K.C.
Measuring air in fresh and hardened concrete [1993, eng] 48-2757
Specifying air-entrained concrete [1993, eng] 48-2026
Why is there air in concrete [1993, eng] 48-286

Hovine, S.
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model [1993, eng] 48-4199

How you can evaluate wetted salt
How you can evaluate wetted salt [1994, eng] 48-5302

Howe, D.L.
Bibliography of Glacier Bay, AK, 1798-1992 [1992, eng] 48-2694

Howell, D.G.
Alaskan rock thermal maturity patterns and hydrocarbon potential [1993, eng] 48-3257

Howells, A.
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields [1994, eng] 48-5506

Howes, B.L.
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake [1993, eng] 48-1664

Høydal, O.A.
Plastic modelling of glaciers and outlets [1993, eng] 48-4181

Hozayen, H.
Effect of highway geometry on distress of asphalt pavements in cold climates [1993, eng] 48-5079
Pavement crack routing and sealing [1993, eng] 48-5067

Hrudey, T.M.
Finite-element simulation of ice-sheet indentation [1994, eng] 48-4817

Hsu, J.
Glass transition in the freezing process [1994, eng] 48-4658

Hu, H.L.
Hydrologic response of freshwater watersheds to climatic variability: model development [1993, eng] 48-2054

Hu, R.J.
Snow and permafrost in the Tian Shan Mountains [1993, eng] 48-5215

Hu, S.C.
Frost heave forces and pile stability [1993, eng] 48-427

Huang, C.H.
Edge diffraction in the vicinity of the tip of a composite wedge [1993, eng] 48-2108

Huang, C.L.
Spatial variations of chemical species in Guliya ice cap [1993, chi] 48-4575

Huang, J.H.
Frost resistant bridge piles in a waterlogged area [1993, chi] 48-4505
Frost resistant bridge piles in a waterlogged area [1993, eng] 48-5216

Huang, J.R.
Efficient finite element method for aircraft deicing problems [1993, eng] 48-1371

Huang, J.S.
Research of the frostheaving project survey [1993, chi] 48-4581

Huang, M.H.
Depression discovered in Midui Glacier, southeast Tibet [1993, chi] 48-4582
Experimental study of the effect of impurities on ice creep at -1 C [1993, eng] 48-400
Experimental study on influence of impurity on ice creep at - 1 degree centigrade [1993, chi] 48-1442

Huang, R.H.
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR [1994, eng] 48-3462

Huang, S.B.
Climatic classification for citrus winter survival in China [1991, eng] 48-5321

Huang, S.H.
Ice crystal formation by supersonic flow [1993, eng] 48-2099

Huang, S.L.
Low power diamond rock coring parameters [1994, eng] 48-5336

Huang, X.M.
Recent permafrost degradation along the Qinghai-Tibet Highway [1993, eng] 48-5183

Huang, Y.Z.
Engineering geology investigation report of Tanggula army service station [1992, chi] 48-1492
Engineering geology of the Tuotuo River army station [1992, chi] 48-1493
Engineering geology of the Wudaoliang army station [1992, chi] 48-1490
Establishment and layout of the station [1992, chi] 48-1423
Ground penetrating radar for sub-road permafrost detection [1993, eng] 48-494
Loess and its climate records in Kunlun Shan region since the late Pleistocene [1993, eng] 48-504
Permafrost desertification in China [1993, eng] 48-401
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway [1993, chi] 48-4393
Solifluction on permafrost slopes [1993, eng] 48-388

Hubbard, B.
Character, structure and origin of the basal ice layer of a surge-type glacier [1994, eng] 48-5169
Weertman regelation at the glacier bed [1993, eng] 48-2391

Hubberten, H.W.
Snow and ice distribution in the Weddell Sea [1994, eng] 48-4168

Huber, B.T.
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean [1993, eng] 48-3290

Huck, J.R.
Dielectric properties of supercooled water/alcohol solutions [1990, eng] 48-5024
Dielectric spectra of supercooled carbonate solutions [1990, eng] 48-5056

Hudier, E.J.J.
Effects of sea water percolation through first year ice [1993, eng] 48-1075

Hudson, J.A.
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland [1990, eng] 48-1569

Hudson, R.L.
Far-infrared investigations of a methanol clathrate hydrate [1993, eng] 48-3618

Huggins, A.W.
Cloud response to two forms of airborne seeding [1990, eng] 48-3077

Hughes, M.G.
Snow cover records from snow depth models [1993, eng] 48-1803
Snow cover variability in the Great Plains of the United States: 1910-1988 [1993, eng] 48-2925

Hughes, O.L.
Paleoclimatic implications of Canadian Pleistocene stratigraphy [1993, eng] 48-972

Hughes, R.C.
Method and apparatus for acoustic plate mode liquid-solid phase transition detection [1990, eng] 48-4756

Hughes, T.M.C.
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation [1994, eng] 48-2913

Huguenin, G.R.
Millimeter wave system for landing aircraft in snowstorm [1990, eng] 48-2163

Hui, D.
Dynamic tensile strength of glass fiber reinforced pultruded composites [1994, eng] 48-3267
Influence of low temperature on energy absorption in laminated composites [1993, eng] 48-2061
Stress waves through graphite/epoxy laminated plates [1993, eng] 48-2063

Hulme, P.D.
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland [1994, eng] 48-4279

Hulth, S.
Arctic sediments (Svalbard): consumption and microdistribution of oxygen [1994, eng] 48-5026

Humber, C.A.
Insulation of buried water lines in cold regions [1994, eng] 48-3378

Hummer, G.
Computation of ice-water interface densities [1994, eng] 48-3011

Humphrey, D.N.
Tire chips as subgrade insulation—field trial [1993, eng] 48-1840

Humphrey, H., Jr.
Snow making nozzle assembly [1990, eng] 48-2200

Humphrey, J.M.
Skis with probe for controlling speed and maneuverability [1990, eng] 48-2178

Humphrey, S.A.
Ice penetrating moored mine [1990, eng] 48-2262

Huneault, P.A.
Construction of electrical substations in discontinuous permafrost regions [1993, eng] 48-402

Hunt, J.B.
Ablation thresholds and ash thickness [1993, eng] 48-3599

Huokuna, M.
Observations of the Finnish river ice research project [1991, eng] 48-2642

Hurrell, J.W.
Modulation of the atmospheric annual cycle in the Southern Hemisphere [1994, eng] 48-4927

Hurry, V.M.
Cold hardening temperature effects on photosynthesis [1993, eng] 48-1252

Husseiny, A.A.
Compacting and freeze concentration of radioactive wastes [1991, eng] 48-2229

Hutchinson, M.F.
Intuitive approach to analysing small point-source spatial data sets [1993, eng] 48-62

Hutchison, B.L.
Ice-breaking performance of a new arctic research vessel [1994, eng] 48-4302

Hutchon, H.
Environmental impact of road salting—state of the art [1986, eng] 48-3119

Hutson, B.L.
Snow removal apparatus [1992, eng] 48-2242

Hutt, D.
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions [1993, eng] 48-4819

Hütt, G.
Thermoluminescence dating of buried Finnish podsol [1993, eng] 48-3796

Hutter, K.
Granular avalanche modeling pt.1 [1993, eng] 48-2501
Mathematical analysis of granular flow avalanches [1993, eng] 48-2399

Hutter, R.J.
Automobile heater using a latent heat storage device [1994, eng] **48-3094**
Huybrechts, P.
Ice dynamics in the Sør Rondane Mountains [1993, eng] **48-2141**
Late Quaternary record of sea-level changes in the Antarctic [1993, eng] **48-1007**
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions [1993, eng] **48-2140**
Present evolution of the Greenland ice sheet: an assessment by modelling [1994, eng] **48-3515**
Hyatt, J.A.
Permafrost conditions at reservoirs on Baffin I. [1993, eng] **48-4128**
Hyde, W.T.
Effect of altered climatic variables on ice sheet reconstruction [1993, eng] **48-947**
Hyttinen, H.
Environmental impact of a subsea natural gas pipeline failure [1994, eng] **48-3986**
Hyvärinen, K.
Simplified ventilation system Thermonet [1994, eng] **48-3872**
IAgin, V.P.
Hydrotechnical dam structure with insulated water duct in frozen ground [1992, eng] **48-5530**
Junction between water duct and ice and earth dam wall [1992, eng] **48-5531**
IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15-19, 1992
Proceedings, Vol.3 [1992, eng] **48-1532**
IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994
Proceedings [1994, eng] **48-5535**
IAkimov, IU.L.
Modeling the impact of a snow avalanche on a structure: an experimental investigation [1994, eng] **48-2469**
IAkovlev, G.P.
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion [1990, rus] **48-59**
IAkovleva, S.P.
Deformation of a pressure vessel during failure caused by a technological defect [1990, rus] **48-55**
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion [1990, rus] **48-59**
IAkunin, L.P.
Ice transference of Bering Strait [1993, eng] **48-4348**
Surface temperature and salinity of the Okhotsk Sea [1993, eng] **48-1088**
IAkupova, F.S.
Extinction and scattering of millimeter waves by cloud and precipitation particles [1992, eng] **48-1022**
IAkushev, V.S.
Peculiarities of gas hydrate formation in sands [1993, eng] **48-379**
Iamandi, C.
Cold time operation improvement of the Bucharest water supply intake [1994, eng] **48-3960**
Influence of the bar shape of a trash rack on the ice particle trajectory [1994, eng] **48-3970**
Protection against ice and sediment at water intakes [1994, eng] **48-5550**
IAnchenko, O.M.
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils" [1993, eng] **48-1103**
IAn'shin, A.
Ice-navigating ships supply Chukotka [1992, rus] **48-5400**
IAnvarev, N.V.
Effect of radial dynamic responses on the service life of sterntube bearings in icebreakers [1993, rus] **48-3763**
IAshin, I.M.
Pedogenic functions of water-soluble organic matter in taiga landscapes [1993, eng] **48-1888**
IAtsimirskii, V.K.
Ice-forming properties of organic reagents [1989, eng] **48-3748**
Ibuki, S.
Estimation of meteorological conditions in mountainous regions for ice accretion [1993, eng] **48-813**
Ice Station Weddell Group of Principal Investigators and Chief Scientists
Weddell Sea exploration from Ice Station [1993, eng] **48-2079**
Ice technology—advancing slowly
Ice technology—advancing slowly [1992, eng] **48-3224**
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977 [1977, eng] **48-2703**
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978 [1978, eng] **48-2702**
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971 [1971, eng] **48-3081**
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972 [1972, eng] **48-3082**
Ice thickness data, winter 1991-1992
Ice thickness data, winter 1991-1992 [1993, eng] **48-2162**
Icebreaker *Louis S St Laurent* returns to service
Icebreaker *Louis S St Laurent* returns to service [1993, eng] **48-3561**
Ichiki, Y.
Tyre tread pattern for heavy-duty vehicle travelling on icy road [1993, eng] **48-5526**
Ichimiya, K.
Effects of a porous medium in a flow passage with miter bend [1993, eng] **48-869**
Ieru alimskii, A.V.
Efficiency of using non-traditional hull lines for icebreakers [1994, eng] **48-4307**
Technical-economic basis for improving the ice navigability of transport ships and icebreakers [1989, rus] **48-310**
Igarashi, Y.
Snowmobile [1989, eng] **48-4087**
Igoshin, V.A.
Influence of electric field on the properties of body-ice contact [1993, eng] **48-4320**
Ihata, S.
Road heating in Sapporo City [1989, jpn] **48-703**
Ihde, J.
Analysis of ERS-1 radar altimeter data over Antarctica [1994, eng] **48-3435**
Iida, K.
Pumpable high strength lightweight concrete for structures in arctic marine environment [1986, eng] **48-5314**
Ikarashi, T.
Striped pattern of snowfall and snow cover [1993, eng] **48-2823**
Ikeda, M.
Intercomparison of ERS-1 SAR, airborne SLAR and electro-magnetic ice-thickness data [1994, eng] **48-3456**
Pack ice off Hokkaido, Jan.-Apr. 1992 [1992, jpn] **48-3157**
Ikeda, T.
Effect of hydrostatic pressure on the formation of air-hydrate crystals [1993, eng] **48-1865**
Ikemoto, T.
Analysis of snowfall characteristics and various snow disasters in urban area [1993, jpn] **48-2003**
Evaluating snow risk potential in urban areas [1993, jpn] **48-1980**
Ikeuchi, T.
Weather forecasting and road information [1986, jpn] **48-256**
Ikeya, C.
Indoor test of ice and snow tires on iced drum tester [1992, jpn] **48-1850**
Il'evskii, IU.
Maintaining a sluice during winter [1992, rus] **48-3795**
Il'in, G.V.
Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman [1991, rus] **48-2526**
Il'in, S.D.
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles [1993, rus] **48-2495**
Il'in, V.A.
Laboratory investigations of the dielectric permittivity of frozen sandy soils [1993, eng] **48-4285**
Microwave apparatus for monitoring soil temperatures [1994, eng] **48-2215**
Il'ina, T.A.
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine [1993, rus] **48-2075**
Illangasekare, T.H.
Modeling of snowpack melting variations [1994, eng] **48-5387**
Imai, T.
Experiments on snow melting by sewage treatment water [1987, jpn] **48-551**
Imaizumi, A.
Development of the sink-and-float type ice boom [1993, jpn] **48-1046**
Imbrie, J.
Simple systems model of the major glaciation cycles [1993, eng] **48-4193**
Improving snow data
Improving snow data [1994, eng] **48-3238**
Inagaki, T.
Paving material intended to prevent low temperature cracking [1993, eng] **48-5070**
Inanaga, A.
MOS-1/MSR mosaic data sets [1993, jpn] **48-1058**
Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993
Conference proceedings [1993, eng] **48-787**
Ingersoll, A.P.
Stability of extraterrestrial planetary polar frosts [1992, eng] **48-991**
Ingersoll, C.A.
Tundra seedbank ecology in a subalpine environment [1993, eng] **48-969**
Ingram, R.G.
Boundary layer under landfast ice in Hudson Bay (IV) [1992, jpn] **48-3213**
Effects of sea water percolation through first year ice [1993, eng] **48-1075**
Inkmann, M.S.
Method and apparatus for thermal control of automotive components [1992, eng] **48-2240**
Ino, Y.
Snow cover effect on evergreen shrub physiology [1993, eng] **48-4482**
Inoue, J.
Study of cloud and snow cover over Kinki district, west Japan [1990, eng] **48-4873**
Inoue, M.
Science of snow and ice (10) [1987, jpn] **48-544**
Science of snow and ice (11) [1988, jpn] **48-574**
Science of snow and ice (12) [1988, jpn] **48-654**
Science of snow and ice (13) [1989, jpn] **48-666**
Science of snow and ice (6) [1986, jpn] **48-254**
Science of snow and ice (7) [1987, jpn] **48-268**
Instanes, A.
Study of the mechanical properties of spray ice [1994, eng] **48-5564**
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology [1994, eng] **48-2482**
International Arctic Buoy Project
International Arctic Buoy Project [1993, eng] **48-3320**
International Arctic Science Committee
1993 Council Meeting, Abisko, Sweden. Report [1993, eng] **48-298**
1994 IASC meeting report [1994, eng] **48-4644**
International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994
Cold regions engineering: "A global perspective" [1994, eng] **48-3347**
International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992
Proceedings [1992, eng] **48-4961**
International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981
Proceedings [1982, eng] **48-5390**
International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994
Polartech '94 [1994, eng] **48-3945**
International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993
Environmental radioactivity in the Arctic and Antarctic: proceedings [1993, eng] **48-4510**
International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994
Cold climate HVAC '94 [1994, eng] **48-3841**
International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4 [1994, eng] **48-3012**
International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993
Proceedings, Vol.1 [1993, eng] **48-348**
Proceedings, Vol.2 [1993, eng] **48-5180**
International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993
Proceedings, POAC 93 [1993, eng] **48-86**
International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994
ICETECH '94—proceedings [1994, eng] **48-4289**
International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994
Proceedings [1994, eng] **48-4908**
International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991
Proceedings of the 1st International Conference on Winter Vehicle Mobility [1993, eng] **48-1160**
International Council of Scientific Unions
Study of global change [1989, eng] **48-2365**
International Drumlin Symposium, 3rd, Oulu, Finland, June 26-July 2, 1990
Proceedings [1992, eng] **48-2514**
International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993
IGARSS '93. Better understanding of earth environment [1993, eng] **48-1678**
International Niagara Working Committee
1989-1990 operation of the Lake Erie-Niagara River ice boom [1990, eng] **48-2546**
International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993
Proceedings, Vol.2 [1993, eng] **48-4312**
International Plant Cold Hardiness Seminar, 4th, Uppsala, Swe-

den, July 1-5, 1991
Advances in plant cold hardiness [1993, eng] 48-1249
International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994
ISCORD '94. Extended abstracts [1994, eng] 48-4404
International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990
Abstracts [1990, eng] 48-4664
International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993
Abstracts [1993, eng] 48-1026
International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992
Proceedings [1993, eng] 48-1292
International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992
Proceedings [1993, eng] 48-2817
International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993
Abstracts [1993, eng] 48-796
International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993
Proceedings [1993, eng] 48-857
International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986
Proceedings [1986, eng] 48-608
International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993
Proceedings [1994, eng] 48-5324
International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993
Proceedings. IWAIS '93 [1993, eng] 48-807
International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993
Proceedings [1993, eng] 48-1186
Ionin, A.S.
Problems of the geomorphology of glaciated shelves [1993, eng] 48-2539
Ionina, N.D.
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere [1993, rus] 48-2490
Ionov, B.P.
Interaction of hovercraft icebreaker platforms with ice cover [1994, eng] 48-3952
Theoretical modelling of ice resistance of ships [1994, eng] 48-5629
Iordache, F.
Thermal comfort analysis in apartment buildings using the CAMERA program [1994, eng] 48-3846
Iordanescu, M.
Construction of electrical substations in discontinuous permafrost regions [1993, eng] 48-402
Ip, J.
Computer simulation of underground cable thermal environment [1993, eng] 48-2050
Ippolitov, V.S.
AARI Arctic expeditions in 1990 [1992, eng] 48-735
"North Pole" drifting stations today and tomorrow [1992, eng] 48-738
Iqbal, M.
Thermal conductivity of pipe insulations during condensation [1993, eng] 48-872
Irani, M.B.
Computation of sheet ice forces on a faceted conical structure [1993, eng] 48-142
Ice loading on a multifaceted conical structure [1993, eng] 48-2690
Ice loading on a multifaceted conical structure [1993, eng] 48-4316
Influence of compliance of structure on ice load [1994, eng] 48-5560
Parametric sensitivity in ice force calculation models [1994, eng] 48-5575
Irgens, R.L.
Vertical distribution of bacteria in Arctic sea ice [1993, eng] 48-2314
Irons, J.R.
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. [1993, eng] 48-1297
Irwin, G.J.
Prediction of track performance on deep snowpack [1993, eng] 48-758
Recent developments of the geographic snow information system [1993, eng] 48-756
Wheeled vehicle mobility evaluation in deep snowpack [1993, eng] 48-1167
Irwin, T.J.
Bering Strait current variations from satellite data [1993, eng] 48-1324
Isaacs, R.M.
Use of vehicle drive cycles to assess spark plug fouling performance [1994, eng] 48-3102
Isaksson, E.
Climatic data derived from firn cores, Queen Maud Land [1994, eng] 48-5307
Patterns of snow accumulation and O-18 in Queen Maud Land [1991, eng] 48-1112
Snow pattern accumulation patterns in Antarctica [1994, eng] 48-5176
Isard, S.A.
Estimating potential direct insolation to alpine terrain [1983, eng] 48-3343
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing [1993, eng] 48-2951
Ishibashi, H.
Energy budget comparison of snowmelt rates in a deciduous forest and an open site [1993, eng] 48-2827
Ishida, A.
Dwarf shrub photosynthesis in an alpine zone [1994, eng] 48-4995
Ishida, H.
Stabilization and frost heave prevention of volcanic soils [1993, jpn] 48-1976
Ishida, K.
Satellite time series monitoring of Okhotsk Sea ice in 1992 [1993, jpn] 48-1067
Ishiguro, F.
Introduction to flexible plows (variable curved surface-type) [1988, jpn] 48-590
Ishihara, K.
Study on snow hydrology through application of MOS-1 satellite data [1998, eng] 48-4869
Study on snow hydrology through application of MOS-1 satellite data [1990, eng] 48-4876
Ishihara, M.
Freeze-thaw effects on activated sludge processing [1994, eng] 48-3635
Ishii, C.
Experimental study on the control of ice movement with a new design of ice boom [1993, eng] 48-4352
Fluid forces acting on and the velocity of ice floes [1993, eng] 48-4356
Ishii, H.
Direct indicator of hydrous content in deposited snow [1993, jpn] 48-1966
Ishii, N.
Examples of radar observations of snowfall in Hokuriku [1989, jpn] 48-667
Ishii, Y.
Characteristics of snow cover taking account of ram hardness in Hokkaido [1992, jpn] 48-3205
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92 [1992, jpn] 48-3154
Hydro-meteorological automatic observation system and research plan [1992, jpn] 48-3218
Regional observations of snow cover in Hokkaido, February 1992 [1992, jpn] 48-3153
Snowmelt runoff in a boreal forest in Quebec (I) [1992, jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II) [1992, jpn] 48-3210
Ishikawa, M.
Effect of heat conductor plates on ice formation near a wall [1993, eng] 48-864
Long-term variations in ice concentration off Hokkaido [1993, jpn] 48-1053
Pack ice off Hokkaido, Jan.-Apr. 1992 [1992, jpn] 48-3157
Spectral extinction coefficient of sea ice [1993, jpn] 48-1078
Ishikawa, N.
Characteristics of heat exchanger for melting of piled snow [1993, eng] 48-876
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988 [1992, jpn] 48-3206
Effect of snow cover on the thermal characteristics of the surface layer [1992, jpn] 48-3208
Hydro-meteorological automatic observation system and research plan [1992, jpn] 48-3218
On the breakup of the nocturnal cooling layer in a basin in snowmelt season [1992, jpn] 48-3207
Snowmelt over permafrost area in the arctic Alaska [1990, eng] 48-4670
Ishimaru, T.
Field test of a new snow-particle counter (SPC) system [1993, eng] 48-2843
Ishimoto, K.
Making the best of natural conditions, European and American snow countermeasures [1989, jpn] 48-712
Visibility reduction by snow in the wake of highway vehicles [1993, jpn] 48-1968
Visibility reduction caused by snow and a driver's eye movement [1993, jpn] 48-1967
Visibility reduction caused by snow in the wake of vehicles on highways [1993, eng] 48-1201
Ishisaka, T.
Development of a method for predicting snowfall intensity and compacted snow on roads [1993, jpn] 48-1852
Ishitani, M.
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids [1993, eng] 48-5068
Ishizaka, M.
Accurate measurement of densities of snowflakes using 3-D microphotographs [1993, eng] 48-2833
Ishizaki, T.
Frost heave study in Japan [1993, eng] 48-1427
Study of frost heave evaluation and test method [1992, jpn] 48-3215
Ishizawa, K.
Borehole drilling for sewage disposal at Asuka Station, East Antarctica [1994, eng] 48-5347
Construction of ice domes at Asuka Station [1993, eng] 48-1182
Snowdrifts and the differential settlement of buildings (1) [1993, jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2) [1993, jpn] 48-2001
Ishman, S.
Sedimentation dynamics within antarctic fjords [1993, eng] 48-1826
Iskandar, I.K.
Modeling the transport of heavy metals in soils [1990, eng] 48-3493
Iskhakov, R.N.
Dynamic mass exchange in Tuyuksu Glacier [1992, rus] 48-4457
Ismail, S.
Ice and sedimentation processes in the Saint John River, Canada [1994, eng] 48-5537
Isobe, K.
Application of a snow water mixture transport system for urban areas [1988, jpn] 48-561
Making a snow mountain (application of a pipe transport system for snow water mixture) [1986, jpn] 48-35
Snow removal system using existing roadside ditches [1986, jpn] 48-265
Surface snow removal system by snow removal pipe [1986, jpn] 48-24
Isobe, T.
Engine mounting arrangement and drive mechanism for small snowmobiles [1991, eng] 48-2223
Frame and body construction for small snowmobile [1990, eng] 48-2189
Itagaki, K.
Connectivity of snow particles [1993, eng] 48-2819
Ito, H.
Snow melting measures in Asahikawa City [1988, jpn] 48-566
Ito, M.
Joint tests on stud ravelling [1988, jpn] 48-570
Ito, S.
Withstand voltage and flashover performance of iced insulators [1993, eng] 48-847
Ito, T.
Antarctic ozone hole: recent topics [1993, jpn] 48-2436
Avalanche hazards and their weather patterns in the Tohoku District [1993, jpn] 48-1969
Development of a meteorological forecast for snow accumulation on transmission lines [1993, eng] 48-2836
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines [1993, eng] 48-850
Investigation of the roof shape and roofing materials of wooden houses in Sapporo [1993, jpn] 48-1990
On the adfreeze properties of damaged roofing [1993, jpn] 48-1992
Probe for acidity of falling snow and deposited snow [1993, jpn] 48-1964
Report on historical changes of road snow removal technique in Akita Prefecture [1993, jpn] 48-1970
Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. [1993, jpn] 48-1965
Study on the adfreeze properties of roofing materials [1993, jpn] 48-1991
Winter on the Kurigo Ridge on National Highway 13 [1988, jpn] 48-589
Ito, Y.
Evaluation and application of ice segregation parameters for frost heave prediction [1993, eng] 48-5033
Itoh, N.
Effect of algaeic methanes on atmospheric ozone [1994, eng] 48-4157
IUlinov, V.L.
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North [1989, rus] 48-906
IUnovich, M.E.
Mechanism of action of pour-point depressants [1994, eng] 48-4167
IUr'ev, O.F.
Moisture protection of the industrial building enclosures in a cold climate by using dry jets [1994, eng] 48-3866
IUrganov, L.M.
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica [1993, rus] 48-2488
IUrkovskaia, T.K.
Latitudinal differentiation of vegetation along the Russo-Finnish border [1993, rus] 48-5287
IUrtsev, B.A.
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland) [1993, rus] 48-1639
Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient [1993, rus] 48-1629

New taxa of the genus *Potentilla* (Rosaceae) from arctic Alaska [1993, rus] **48-5284**
Oxytropis tananensis—new species of the section *Baicalia* (Fabaceae) from the interior of eastern Alaska [1993, rus] **48-5278**

IUshkin, N.P.
Strategy of developing regions in the European northeast of the USSR [1990, rus] **48-5402**

IUshkov, V.A.
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989 [1993, rus] **48-2486**

Ivanov, A.N.
Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera [1993, rus] **48-3740**

Ivanov, A.V.
Glacigenic stage of substances' turnover [1993, eng] **48-1086**
Natural ice as a component of biosphere [1993, eng] **48-1085**
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts [1993, eng] **48-1084**

Ivanov, B.V.
Atmospheric sciences on Ice Station Weddell [1992, eng] **48-3780**

Ivanov, F.M.
Structure and frost resistance of centrifuged concrete with admixtures [1989, rus] **48-307**

Ivanov, V.A.
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete [1994, eng] **48-3956**

Ivanova, M.M.
Second instance of *Viola incisa* (Violaceae) in Central Siberia [1993, rus] **48-1635**

Ivantsov, O.M.
Arctic pipeline construction in the Soviet Union—part 2 [1978, eng] **48-1117**
Low-temperature gas pipelines [1980, rus] **48-2614**

Iversen, T.
Meteorology and transport of air masses in arctic regions [1993, eng] **48-3049**

Ives, J.D.
Paleoecology of Quebec and northern Labrador [1976, eng] **48-3295**

Ivlieva, L.I.
Using dry mixtures for concreting extended constructions on a frozen foundation [1992, rus] **48-1392**

Iwafune, S.
Pneumatic tire having expanded outer tread rubber layer [1993, eng] **48-4365**

Iwamoto, L.A.
Selection of sanitation alternatives: a strategy for remote Alaskan communities [1994, eng] **48-3383**

Iwamoto, T.
Changes in sidewalk snow removal equipment [1989, jpn] **48-702**
Hexagonal ice molecules intercalated between molecular metals [1993, eng] **48-1612**

Iwane, M.
Nonmetal antiskid devices for tires [1986, jpn] **48-262**

Iwasaka, Y.
Stratospheric aerosol increase after Mt. Pinatubo eruption [1993, eng] **48-1868**

Iwata, S.
Sør Rondane Mountains Late Cenozoic glacial history [1992, eng] **48-920**
Uplift of the Sør Rondane Mountains, East Antarctica [1993, eng] **48-2755**

Iwata, T.
Pneumatic tire having expanded outer tread rubber layer [1993, eng] **48-4365**

Izakson, V.IU.
Failure of frozen argillaceous rock in an aqueous medium [1993, eng] **48-2373**
Rock geomechanics in the cryolithozone [1993, eng] **48-2372**

Izrael', IU.A.
Study of the ecosystem of the Bering and Chukchi seas [1992, rus] **48-653**

Izumi, K.
Simulation of a destructive avalanche at Maseguchi, Japan [1993, eng] **48-2821**
Structures of snow cloud in dry-snow avalanches [1993, eng] **48-2847**

Izumi, M.
Future aspects of cities in snowy region [1993, jpn] **48-1977**
Return period conversion coefficient for ground snow load on design [1993, jpn] **48-1995**

Izumiyama, K.
Computation of sheet ice forces on a faceted conical structure [1993, eng] **48-142**
Influence of compliance of structure on ice load [1994, eng] **48-5560**
Study on ice tank experimentation (part 2) [1993, eng] **48-174**

Izutsu, K.I.
Excipient stabilization of protein freeze-drying [1994, eng] **48-4657**

Jaakkola, T.
Migration of plutonium in arctic terrestrial ecosystems [1993, eng] **48-4562**

Jääskeläinen, V.
Application of ERS-1 active microwave instrumentation data to remote sensing of snow [1992, eng] **48-2066**
Effect of land-cover type and season in microwave remote sensing of snow [1993, eng] **48-1707**

Jackson, M.
Velocity pattern in a transect across Ice Stream B, Antarctica [1993, eng] **48-3582**

Jacob, P.
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores [1993, eng] **48-1818**

Jacobel, R.W.
Ice thickness and surface features of ice streams D and E [1992, eng] **48-2622**
Radar detection of internal folding of antarctic ice streams [1993, eng] **48-3579**
Radar studies at the mouths of ice streams D and E, Antarctica [1993, eng] **48-1333**

Jacobs, A.P.
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta [1994, eng] **48-3370**

Jacobs, J.D.
Barnes Ice Cap fluctuations, Baffin I., Canada [1993, eng] **48-2419**
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979 [1983, eng] **48-3344**

Jacobs, S.S.
Recent sea-ice retreat west of the Antarctic Peninsula [1993, eng] **48-620**

Jacobsen, P.
Carotenoids in West Greenland lichens [1993, eng] **48-2425**

Jacobson, D.V.
Transparent article having high visible transmittance [1988, eng] **48-4271**

Jacobson, R.
Ultra-track: the ultimate all-terrain attachable tracks [1993, eng] **48-1179**

Jacoby, G.C.
Influence of atmospheric carbon dioxide on tree line extent [1993, eng] **48-1115**

Jaffe, D.A.
Nitrate deposition to the Alaskan snowpack [1993, eng] **48-3907**
Nitrogen oxide effects on arctic tropospheric ozone trends [1993, eng] **48-3052**

Jaffrezo, J.L.
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1 [1993, eng] **48-3891**
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview [1993, eng] **48-3884**
Radionuclide presence in snow and aerosols during AGASP [1993, eng] **48-3888**
Seasonal aerosol chemistry at Dye 3, Greenland [1993, eng] **48-3889**
Size distributions of atmospheric trace elements at Dye 3, pt.2 [1993, eng] **48-3893**
Sulfate and MSA in the air and snow on the Greenland Ice Sheet [1994, eng] **48-4599**

Jakob, M.
Discontinuous permafrost distribution in Nepalese mountains [1993, eng] **48-354**

Jakosky, B.M.
Recent history of Mars water cycle [1993, eng] **48-1618**
Redistribution of subsurface neutrons caused by ground ice on Mars [1993, eng] **48-2057**
Seasonal behavior of water on Mars [1992, eng] **48-5044**

Jakše, J.
Interferential type of climate, reason for damages to overhead lines [1993, eng] **48-843**

Jakubos, B.
Lodgepole pine invasion of subalpine meadows [1993, eng] **48-2422**

Jal, J.F.
Glassy state formation of aqueous solutions [1994, eng] **48-5384**

Jameel, M.I.
Stratified flow under an ice keel—a numerical approach [1993, eng] **48-69**

James, A.R.
Freezing tolerance in contrasting ryegrass genotypes [1993, eng] **48-3936**

James, E.H.
Thermal anti-icing systems for aero-engine intakes [1993, eng] **48-2806**

James, J.C.
Pinus sylvestris growth at Scottish tree line [1994, eng] **48-5018**

James, P.B.
Seasonal cycle of carbon dioxide on Mars [1992, eng] **48-5043**

James, W.
Computer program for designing pipe networks for arctic settlements [1979, eng] **48-4141**

James, W.D.
Dynamic loads on transmission line structures due to galloping conductors [1994, eng] **48-3809**

Jamieson, J.B.
Rutschblock precision, technique variations and limitations [1993, eng] **48-3593**
Shear frame stability parameters for large-scale avalanche forecasting [1993, eng] **48-2865**
Snow slab layers and stability: a summary of some recent research and experience [1994, eng] **48-3271**

Janc, D.
Convective cloud model predictive capabilities [1993, eng] **48-1743**
Numerical study of the cloud seeding effects [1990, eng] **48-2081**

Jang, H.J.
Research of frost heave property of soil in Daqing region [1993, eng] **48-405**

Jankowski, D.G.
Martian regolith ground ice inferred from impact craters [1993, eng] **48-2996**

Janoo, V.C.
Measurement of thermal stresses in asphalt concrete mixtures [1993, eng] **48-403**
Pavement response and pavement performance studies at the new Denver International Airport [1994, eng] **48-4916**
Thermal stress measurements in asphalt concrete [1993, eng] **48-720**

Janowiec, M.
Bacterial flora in soils of western Spitsbergen [1993, eng] **48-4999**

Jans, P.
Hull for ice breaking ship [1993, eng] **48-5525**
Icebreaking ship [1993, eng] **48-1734**
Shallow draft Thyssen/Waas-icebreaker [1993, eng] **48-108**

Jansen, E.
Northern Hemisphere response to orbital forcing [1994, eng] **48-4950**
Paleoceanography of Greenland, Iceland and Norwegian seas [1993, eng] **48-2879**

Janssen, H.
Delta^{13}C-analysis of permafrost soil samples of NE- Siberia [1993, eng] **48-2304**

Jansson, E.P.
Short term variations in ice dynamics of a glacier in Sweden [1993, eng] **48-3535**

Japan Highway Public Corporation
Snow and cold weather countermeasures on highways [1988, jpn] **48-584**

Japan. Ministry of Construction. Road Bureau
Bulletin on road snow removal for 1987 [1988, jpn] **48-573**
Bulletin on road snow removal for 1988 [1989, jpn] **48-707**
Bulletin on the budget for snow and cold weather operations for 1988 [1988, jpn] **48-565**
Report on the budget items for snow and cold weather operations in 1988 [1989, jpn] **48-716**
Summary of the snow and cold weather operations budget for 1989 [1989, jpn] **48-708**

Japanese Antarctic Research Expedition
Meteorological data at Showa Station, 1992 [1993, eng] **48-3820**

Japanese Society of Snow and Ice (Nihon seppyo gakkai)
Dictionary of snow and ice [1990, jpn] **48-755**

Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee
Reports on antarctic climate research (I) [1993, jpn] **48-3183**
Reports on antarctic climate research (II) [1993, jpn] **48-3190**

Jarrett, R.D.
Paleohydrologic techniques used to define the spatial occurrence of floods [1990, eng] **48-2158**

Järveläinen, M.
Environmental impact of a subsea natural gas pipeline failure [1994, eng] **48-3986**

Järvi, A.
Ice flow behind an icebreaking vessel [1993, eng] **48-109**

Järvinen, E.
Effect of electric current on the adhesion of ice to metal piles [1994, eng] **48-3965**

Jaskulka, F.J.
Comparison of the predictive ability of ice cream freezing point depression equations [1993, eng] **48-3839**

Jauhiainen, I.
Tariff policy in district heating [1994, eng] **48-3856**

Jayaratne, E.R.
Snow pellet heat transfer during ice crystal collisions [1993, eng] **48-983**

Jayaweera, I.
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone [1993, eng] **48-592**

Jayne, J.T.
Stratospheric implications of heterogeneous chlorine interactions [1994, eng] **48-3810**

Jeck, R.K.
Aircraft icing environment in wintertime, low ceiling conditions [1985, eng] **48-5100**

Jeffrey, B.A.
Environmental impact of road salting—state of the art [1986, eng] **48-3119**

Jeffries, M.O.
Analysis of antarctic pack ice physical properties [1994, eng] 48-2812
Backscatter from ice growing on shallow lakes [1993, eng] 48-1727
C-band backscatter model for lake ice in Alaska [1993, eng] 48-1714
History of Hobson's Choice Ice I. [1993, eng] 48-898
Ice thickness variability of the McMurdo Sound landfast ice runway [1992, eng] 48-3768
Physical properties and structure of a single ice floe [1992, eng] 48-3769
Structural characteristics of antarctic land-fast sea ice [1993, eng] 48-2385

Jenkins, A.
Ice shelf basal melting: implications of a simple mathematical model [1991, eng] 48-7
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea [1992, eng] 48-234
Melt water chemistry and its impact on stream water quality [1993, eng] 48-986
Melting of continental ice in the ocean and its impact on surface and bottom waters [1993, eng] 48-4191
Temperature and salinity beneath Ronne Ice Shelf, Antarctica [1993, eng] 48-3003

Jenkins, J.M.
Wind-induced heat transfer through permeable clothing [1993, eng] 48-874

Jenkins, J.T.
On the structure of three-dimensional shear flows [1993, eng] 48-2085

Jenkins, M.A.
Carbon flux in unmanaged arctic ecosystems [1993, eng] 48-1884

Jenkins, T.F.
Comparison of explosive extraction methods for ground water testing [1994, eng] 48-3825
Evaluation of pre-extraction analytical holding times for nitroaromatic and nitramine explosives in water [1993, eng] 48-999
Evaluation of pre-extraction analytical holding times for tetryl in soil [1994, eng] 48-5410
Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil [1993, eng] 48-721
Experiments with explosive-contaminated soil [1993, eng] 48-723
Instability of tetryl to Soxhlet extraction [1994, eng] 48-3558
Materials for the analysis of volatile organic compounds in soil [1994, eng] 48-5414
Preextraction holding times for nitroaromatics and nitramines in soils [1994, eng] 48-5415

Jennings, A.E.
Heinrich events in the Labrador Sea [1993, eng] 48-4188

Jenniskens, P.
Structural transitions in amorphous water ice and astrophysical implications [1994, eng] 48-5108

Jensen, D.A.
Operation and monitoring of sewage disposal by stack injection [1994, eng] 48-3387

Jensen, E.J.
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements [1994, eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies [1994, eng] 48-4848
Numerical simulations of the effects of gravity waves on noctilucent clouds [1994, eng] 48-3144

Jensen, G.A.
Radioluminescent lights score high in VFR night air taxi tests [1987, eng] 48-4134

Jensen, H.
Experimental oil spills in the Barents Sea marginal ice zone [1993, eng] 48-159
Iceberg data from annual expeditions in the Barents Sea [1993, eng] 48-130
Oil spill research in the Cold Environment Laboratory at SINTEF NHL [1994, eng] 48-4923

Jensen, J.R.
Design of a scanning, spaceborne radar altimeter for measuring polar ice [1993, eng] 48-1722

Jensen, M.
Arctic soil mineralization following simulated climate change [1993, eng] 48-1230

Jensenius, J.S., Jr.
Comments on "Snow versus rain: looking beyond the 'magic' numbers" [1993, eng] 48-2360

Jentz, R.R.
SSM/I sea ice products validation [1991, eng] 48-3670

Jeton, A.E.
Watershed modeling—spatial partitioning using GIS [1993, eng] 48-687

Jezek, K.C.
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica [1993, eng] 48-1311
Consistency in long-term observations of oceans and ice from space [1994, eng] 48-4414
Drought in Greenland? [1993, eng] 48-1120
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery [1993, eng] 48-1670
Laboratory backscatter measurements over urea ice with a snow cover at Ku band [1993, eng] 48-2106
Microwave scattering measurements of Greenland firn [1994, eng] 48-4830
Radar backscatter measurements from simulated sea ice during CRRELEX '90 [1993, eng] 48-2645
RADARSAT: Antarctic Mapping Project [1993, eng] 48-1915
Radiometric derivation of antarctic ice sheet elevation [1993, eng] 48-1305
Satellite observations of oceans and ice [1988, eng] 48-1467
Seasonal variations in brightness temperature for central Antarctica [1993, eng] 48-1339
Unusual radar echoes from the Greenland ice sheet [1993, eng] 48-538

Jezierska-Anczków, A.
Bacterial flora in soils of western Spitsbergen [1993, eng] 48-4999

Ji, C.Q.
Analysis and research of ice loads acting on offshore structures [1993, eng] 48-4012

Ji, G.L.
Air pollution and the air purity conditions in Wudaoliang region [1992, chi] 48-1486
Atmospheric circulation and weather and climate background in the Wudaoliang region [1992, chi] 48-1484

Ji, J.
Water phase transition at excess chemical potential [1994, eng] 48-4646

Ji, S.
Damage and protection of earth dam slopes in cold region [1994, eng] 48-3961

Ji, W.S.
Theoretical investigation of the growth rates of ice crystals in clouds [1992, eng] 48-3527

Jia, H.Y.
Soil formation and environmental changes in China's loess [1990, jpn] 48-3425

Jia, P.Q.
1990 antarctic surface energy balance components, Zhongshan Station [1993, eng] 48-1514

Jia, Y.M.
Icing on insulator string of HV transmission lines and its harmfulness [1993, eng] 48-4339

Jian, G.
Countermeasures to prevent canal structures from frost damage [1993, eng] 48-404

Jiang, B.L.
Damage and protection of earth dam slopes in cold region [1994, eng] 48-3961

Jiang, D.H.
Artificial freezing of oil polluted and saline soils [1994, eng] 48-5595

Jiang, H.
Atmospheric circulation and weather and climate background in the Wudaoliang region [1992, chi] 48-1484
Ice cover thickness and air temperature [1994, eng] 48-5599

Jiang, H.J.
Shallow cover design and construction technology of building foundation in Daqing region [1993, chi] 48-4494
Shallow cover design and construction technology of building foundations in Daqing region [1993, eng] 48-5217

Jiang, W.Q.
Frost heave in retaining walls in seasonally frozen ground [1993, eng] 48-460

Jiao, K.Q.
Lakes in the western Kunlun Mountain area [1993, chi] 48-2095

Jiao, T.B.
Frost heave damage to buildings and water pipelines in permafrost [1993, chi] 48-4507
Prevention and treatment of frost damage on buildings and canals in permafrost regions [1993, eng] 48-5218

Jickells, T.D.
Geochemical analysis of snow samples [1993, eng] 48-2047

Jin, G.L.
Sea ice cover effect on sound wave propagation times [1993, eng] 48-45

Jin, H.J.
Climatic changes and permafrost formation in China [1993, eng] 48-503
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake [1993, eng] 48-2134
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China [1993, eng] 48-406

Jin, L.Y.
Snow cover effect on summer temperature and precipitation [1993, eng] 48-1718

Jin, N.C.
Study of the prevention of ice damage of structure in water in cold regions [1993, eng] 48-407

Jin, Z.M.
Experimental study of the effect of impurities on ice creep at -1 C [1993, eng] 48-400
Experimental study on influence of impurity on ice creep at - 1 degree centigrade [1993, chi] 48-1442

Jirasek, M.
Modeling of fracture and damage in quasibrittle materials [1993, eng] 48-3540

Jirayoot, K.
Snow cover evaluation with satellite data [1992, eng] 48-4447

Jobson, B.T.
Seasonal variations of surface layer wetland hydrocarbons [1994, eng] 48-4614

Jochmann, P.
Model ice developed at the HSVA ice tank [1993, eng] 48-173

Johannessen, B.O.
Drift and spread of oil in broken ice—field experiment [1994, eng] 48-5567
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice [1994, eng] 48-4924
Experimental oil spills in the Barents Sea marginal ice zone [1993, eng] 48-159
Oil spill research in the Cold Environment Laboratory at SINTEF NHL [1994, eng] 48-4923

Johannessen, J.A.
Analysis of atmospheric lee waves near Hopen [1994, eng] 48-3477

Johannessen, O.M.
Analysis of atmospheric lee waves near Hopen [1994, eng] 48-3477
Extraction of marginal ice zone thickness using gravity wave imagery [1994, eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery [1993, eng] 48-1688
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92 [1993, eng] 48-131
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data [1994, eng] 48-5594
SIZEX 89—a prelaunch ERS-1 experiment: experiment report [1989, eng] 48-2631

Johansen, S.E.
Seismic survey of the Barents Sea basement [1994, eng] 48-4445

Johansson, B.M.
Revolutionary icebreaker design [1994, eng] 48-4303

Johansson, H.
Improving the cold starting ability of an engine [1990, eng] 48-2202

Johansson, R.M.
Precipitation intensity and type determined by light attenuation technique [1994, eng] 48-3963

Johari, G.P.
Crystallization kinetics of water below 150 K [1994, eng] 48-2999
Intergranular liquid in solids and premelting of ice [1994, eng] 48-3338
Thermodynamic continuity between glassy and normal water [1994, eng] 48-4818

Johnsen, S.J.
Hole liquids and gaskets for the ISTUK deep ice core drill [1994, eng] 48-5359
New improved version of the ISTUK ice core drill [1994, eng] 48-5327

Johnson, B.J.
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols [1994, eng] 48-4014
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992 [1994, eng] 48-4013

Johnson, B.R.
Laboratory and theoretical study of the far infrared spectra of Martian ices [1994, eng] 48-3543

Johnson, D.E.
Forecasting water supply from snowpack [1993, eng] 48-682

Johnson, D.M.
Spatial variability of falling weight deflectometer data: a geostatistical analysis [1994, eng] 48-4909

Johnson, G.
Subsurface sensors for roads [1994, eng] 48-4918

Johnson G., E.
Transport of radon between South America and the Antarctic Peninsula [1993, eng] 48-4539

Johnson, J.B.
Gas gun experiments to determine shock wave behavior in snow: methods and data [1993, eng] 48-1005

Johnson, J.T.
Third Stokes parameter emission from a periodic water surface [1993, eng] 48-2109

Johnson, K.
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. [1994, eng] 48-3381

Johnson, K.S.
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue [1992, eng] 48-2615

Johnson, M.
Winds at the North Pole [1993, eng] 48-2218

Johnson, P.L.
U.S. arctic research in a technological age [1992, eng] 48-2041

Johnson, R.A.
Domestic sludge, a resource for Alaska [1980, eng] **48-4144**

Johnson, R.C.
Calibration of a portable ice strength testing apparatus [1993, eng] **48-91**
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland [1990, eng] **48-1569**

Johnsson, M.J.
Alaskan rock thermal maturity patterns and hydrocarbon potential [1993, eng] **48-3257**

Johnston, C.A.
Material fluxes across wetland ecotones in northern landscapes [1993, eng] **48-1610**

Johnston, C.D.
Rutschblock precision, technique variations and limitations [1993, eng] **48-3593**
Shear frame stability parameters for large-scale avalanche forecasting [1993, eng] **48-2865**

Johnston, P.
Effect of spatially non-uniform water loads on prediction of sea-level change [1993, eng] **48-232**

Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change [1993, eng] **48-2272**

Jois, S.S.
Thermal modeling of ice cores and boreholes via the finite element technique [1994, eng] **48-5353**

Jolls, C.L.
Seedling density and mortality patterns among elevations in *Sedum lanceolatum* [1983, eng] **48-3345**

Jonas, M.
New results of structural investigations in the central part of the FRIS [1992, eng] **48-236**

Jonasson, J.E.
Winter concreting with the use of energetically modified cement (EMC) [1994, eng] **48-3954**

Jonasson, S.
Arctic soil mineralization following simulated climate change [1993, eng] **48-1230**

Jones, B.W.
Glycol concentration requirements for freeze burst protection [1993, eng] **48-2046**

Jones, H.G.
Snow-atmosphere interactions in arctic snowpacks [1993, eng] **48-2952**
Snowmelt runoff in a boreal forest in Quebec (II) [1992, jpn] **48-3210**

Jones, H.W.
Detection of oil under ice by ultrasound using multiple element phased arrays [1986, eng] **48-4176**

Jones, K.F.
Effect of horizontal and torsional coupling on vertical galloping [1993, eng] **48-832**
Tensile strength of first-year sea ice [1993, eng] **48-3587**
Use and calibration of Rosemount ice detectors for meteorological research [1993, eng] **48-825**

Jones, M.H.
Open-top devices for manipulating field temperatures in tundra ecosystems [1993, eng] **48-880**

Jones, P.H.
Environmental impact of road salting—state of the art [1986, eng] **48-3119**

Jones, P.R.
Burner-assisted residential air-source heat pump [1994, eng] **48-3852**

Jones, R.A.
Annual snowpack and water yield in an Arizona mountain basin [1993, eng] **48-2956**

Jones, R.L.
Northern Hemisphere chlorine activation by polar stratospheric clouds [1994, eng] **48-5493**
Stratospheric ozone depletion by ClONO2 photolysis [1993, eng] **48-336**

Jones, S.J.
Icebreaking performance from model scale tests [1994, eng] **48-4297**
Intergranular liquid in solids and premelting of ice [1994, eng] **48-3338**
Model ice forces on a multi-faceted cone [1993, eng] **48-144**
Vertical and inclined edge-indentation of freshwater ice sheets [1993, eng] **48-2730**

Jorat, L.J.
Dielectric properties of supercooled water/alcohol solutions [1990, eng] **48-5024**
Dielectric spectra of supercooled carbonate solutions [1990, eng] **48-5056**

Jordaan, I.J.
Compressive ice failure: critical zones of high pressure [1994, eng] **48-5589**
Dynamic activity in medium-scale ice indentation tests [1994, eng] **48-3829**
Interplay between damage and fracture in ice-structure interaction [1992, eng] **48-1555**
Pressure melting and friction in ice-structure interaction [1992, eng] **48-1537**
Vertical and inclined edge-indentation of freshwater ice sheets [1993, eng] **48-2730**

Jordahl, D.M.
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms [1993, eng] **48-1846**

Jordan Marsh Company. Central Service Facility
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978 [1978, eng] **48-1871**

Jordan, R.
Predicting snow cover infrared spectral signature [1993, eng] **48-1313**

Jordan, R.W.
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea [1992, eng] **48-5094**

Jørgensen, T.S.
UNIS—a new aspect of arctic education [1994, eng] **48-3994**

Jörgensen-Dahl, A.
Northern Sea Route Project: pilot studies report [1991, eng] **48-1779**

Jorgenson, M.T.
Use of snow capture for land rehabilitation in arctic oilfields [1993, eng] **48-408**

Josberger, E.G.
Radiometry of snow cover structure [1993, eng] **48-1318**
Snow hydrology in the Colorado River basin from radiometry [1993, eng] **48-1343**

Joseph, J.C.
Development of a portable ice-thickness measuring instrument [1994, eng] **48-3118**

Joseph, P.
Five-year experience of low-temperature performance of recycled hot mix [1992, eng] **48-2111**
Pavement crack routing and sealing [1993, eng] **48-5067**
Rapid pothole repairs during adverse weather conditions: field evaluation [1993, eng] **48-5092**

Joseph, P.J.
Development of a portable ice-thickness measuring instrument [1994, eng] **48-3118**

Joshi, R.C.
Creep behavior of saline fine-grained frozen soil [1993, eng] **48-1529**
Effects of leachates from industrial wastes on soil properties in permafrost areas [1994, eng] **48-3358**
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta [1993, eng] **48-5087**
Influence of salinity on the compressive strength behavior of frozen soils [1993, eng] **48-483**
Temperature-independent relationships for frozen soils: discussion [1993, eng] **48-1530**

Joughin, I.R.
SAR backscatter from sea ice [1993, eng] **48-4156**

Jouzel, J.
Character, structure and origin of the basal ice layer of a surge-type glacier [1994, eng] **48-5169**

Joyce, M.R.
Use of snow capture for land rehabilitation in arctic oilfields [1993, eng] **48-408**

Joyner, C.C.
Ice-covered regions in international law [1991, eng] **48-998**

Józwik, Z.
Bacterial flora in soils of western Spitsbergen [1993, eng] **48-4999**

Juárez-Badillo, E.
Temperature-independent relationships for frozen soils: discussion [1993, eng] **48-1530**

Judge, A.S.
Climate change influence on highway stability in a permafrost zone [1993, eng] **48-351**
Permafrost and climatic change: an annotated bibliography [1994, eng] **48-5434**

Jung, D.H.
Pavement performance and low temperature cracking of subarctic and arctic airfields [1993, eng] **48-472**

Jung, F.W.
Seasonal variations in pavement strength [1994, eng] **48-4911**
Seasonal variations in pavement strength factors [1993, eng] **48-5088**

Jung, H.C.
Study of the thermal state in the permafrost at the Sejong Station, Antarctica [1993, eng] **48-5210**

Junge, D.J.
Cold start automotive research efforts at the University of Alaska Anchorage [1994, eng] **48-3089**

Junghard, O.
Correlation of studded tire use and road safety [1993, swe] **48-4022**

Jungner, H.
Thermoluminescence dating of buried Finnish podsol [1993, eng] **48-3796**

Jussila, M.
Interaction between ice and propeller [1991, eng] **48-4892**

Justtanont, K.
Methanol ice in the protostar GL 2136 [1992, eng] **48-3617**

Juurmaa, K.
Arctic cargo transportation economic evaluation [1993, eng] **48-101**

Kabanov, M.V.
Distribution functions of the intensity fluctuations of a laser beam in snowfall [1993, eng] **48-2145**

Kachanov, M.
Multiple cracking and damage in brittle solids [1992, eng] **48-1551**

Kachurin, L.G.
Theory of laser polarization within a crystallizing water cloud [1992, eng] **48-1021**

Kacperska, A.
Role of plant tissue water potential in freezing tolerance [1993, eng] **48-1251**

Kadota, T.
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal [1993, eng] **48-2781**

Kadoyama, Y.
Effect of deicers in relation to meteorological conditions [1989, jpn] **48-704**
Performance tests on winter tires [1986, jpn] **48-19**

Kagan, A.A.
Permafrost development in river basins [1993, eng] **48-488**
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia [1994, eng] **48-3406**

Kahl, J.D.
Precautions for air trajectory interpretation of atmospheric chemistry [1993, eng] **48-3917**
Tropospheric temperature trends in the Arctic: 1958-1986 [1993, eng] **48-191**

Kahlbacher, A.
Snow-plough with tilting share [1990, eng] **48-4422**

Kaimakov, E.A.
Destruction of cometary ice [1988, rus] **48-308**

Kaimuldaeva, K.M.
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years [1992, rus] **48-4470**

Kainlauri, E.O.
Cold climate HVAC '94 [1994, eng] **48-3841**
Qualities of home and work place achievable in intelligent buildings in cold climates [1994, eng] **48-3878**

Kaji, S.
Effects of various factors on rime icing; water vapor content [1993, jpn] **48-3169**

Kajikawa, A.
Pneumatic radial tire tread with rectangular blocks having side grooves [1991, eng] **48-1364**

Kajio, Y.
Development of a snow-fraction meter based on the conductometric method [1993, eng] **48-2828**

Kajiya, Y.
Emergency readiness in heavy snow region. Part 1 [1993, jpn] **48-1978**
Emergency readiness in heavy snow region. Part 2 [1993, jpn] **48-1979**
Road surface temperature and road surroundings relations observed in thermal mapping [1993, jpn] **48-1975**
Snow and ice control in Japan and United States [1993, eng] **48-2673**

Kakizaki, M.
Looking back on the snowstorms of 1986 [1986, jpn] **48-15**

Kaku, T.
Effect of road surface and meteorological conditions on traffic accidents in winter [1989, jpn] **48-675**
Investigative report on line of sight in the effectiveness of snow advisory display signs [1991, jpn] **48-4240**
Popularization of studless tires and changes in traffic conditions [1992, jpn] **48-4237**
Study on hindrance to visibility and to the driver's visual point by blowing snow [1992, jpn] **48-4239**
Traffic accidents in the snowy season (1) [1989, jpn] **48-698**
Traffic accidents in the snowy season (2) [1989, jpn] **48-709**
Traffic accidents in winter in Hokkaido [1993, eng] **48-1199**
Visibility reduction caused by snow and a driver's eye movement [1993, jpn] **48-1967**

Kalabin, A.V.
Design of terraced houses for cold climate [1994, eng] **48-3880**

Kalabin, G.V.
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers [1992, rus] **48-2117**
Principles for the organization of a regional information system for ecological monitoring [1992, rus] **48-2121**

Kalachev, V.Y.
Dynamic instability of seasonally thawing silty soils [1994, eng] **48-4840**

Kalicharran, S.
Trends in total ozone over southern African stations between 1979 and 1991 [1993, eng] **48-4390**

Kalinin, E.N.
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone [1993, eng] **48-176**
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone [1993, eng] **48-1048**

Kalinina, G.A.
Effect of abscisic acid content on apricot frost resistance [1993, eng] **48-3194**
Kalkreuth, W.D.
Coal distribution on Ellesmere I., Canada [1993, eng] **48-2415**
Kamada, T.
Study on snowdrift countermeasures in the Shonai region [1987, jpn] **48-545**
Kämäräinen, J.
Ship speed and ice submerging resistance [1993, eng] **48-4903**
Studies in ice mechanics [1993, eng] **48-4904**
Kamath, V.A.
Direct conversion of natural gas to higher hydrocarbon liquids [1994, eng] **48-3984**
Kamb, B.
Monitoring the motion of an antarctic ice stream [1993, eng] **48-1669**
Kameda, T.
Ice cores and borehole temperatures from Spitsbergen [1993, eng] **48-1860**
Kamenskii, R.M.
Degradation of cryogenic strata in large water storage areas [1993, eng] **48-529**
Gas pipeline Mastakh-Yakutsk and environment [1993, eng] **48-409**
Kamenskikh, V.A.
Device for testing ski sliding surface [1990, eng] **48-2187**
Kamiishi, I.
Estimating snow avalanche runout distances from topographic data [1993, eng] **48-2860**
Kamimura, H.
Development of a snow removal truck to manage high snowbanks [1986, jpn] **48-266**
Kaminuma, K.
Icequakes recorded at Syowa Station, Antarctica [1993, eng] **48-3278**
Kamiya, M.
Recycling systems for waste materials of reconstruction of streets in Sapporo City [1993, eng] **48-5076**
Kamiya, Y.
OH radical formation in electron-irradiated ice [1993, eng] **48-2052**
Kamiyama, K.
Glaciological data collected by JARE-33 in 1992 [1994, eng] **48-4766**
Inland traverse of JARE-33 in 1992 [1993, jpn] **48-2439**
Kämpfer, N.
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station [1994, eng] **48-5460**
Kamyshev, M.A.
Prospects of offshore oil and gas pipelines construction on the Russian shelf [1993, eng] **48-4315**
Kanada, S.
Experimental study on interactions between water waves and ice sheet [1994, eng] **48-5561**
Kanayama, H.
Northernmost winter roads [1987, jpn] **48-282**
Kanda, H.
Site of Special Scientific Interest, Antarctica [1992, jpn] **48-2446**
Kane, D.L.
Application of oxygen-18 tracer techniques to arctic hydrological processes [1993, eng] **48-944**
Hillslope hydrology in an arctic setting [1993, eng] **48-398**
Improving estimates of snowpack water equivalent using double sampling [1993, eng] **48-2940**
Northern hydrology and water resources in a changing environment [1992, eng] **48-2034**
Snowmelt over permafrost area in the arctic Alaska [1990, eng] **48-4670**
Use of spatially distributed data to model arctic hydrologic processes [1993, eng] **48-410**
Kaneda, Y.
Three dimensional numerical simulation of snowdrift [1993, eng] **48-1786**
Kaneko, Y.
Tyre tread pattern for heavy-duty vehicle travelling on icy road [1993, eng] **48-5526**
Kaneyasu, K.
Snow and road traffic noise [1988, jpn] **48-659**
Kang, D.J.
Oxygen-18 and nutrients in the Bransfield Strait [1993, eng] **48-3030**
Kang, J.C.
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains [1992, chi] **48-2015**
Kang, S.H.
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition [1992, eng] **48-5095**
Phytoplankton in the Antarctic Marginal Ice Zone [1992, eng] **48-1024**
Kang, X.C.
Recent permafrost degradation along the Qinghai-Tibet Highway [1993, eng] **48-5183**
Kano, Y.
Evaluation of accuracy for numerical sea ice forecast in the seas around Hokkaido [1990, jpn] **48-4681**
Possibility of one-month forecast of sea ice [1993, jpn] **48-1068**
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989 [1990, jpn] **48-4680**
Kansai Paint Company Ltd
Structure to prevent snow- and ice-adhesion e.g. to railway vehicle [1993, eng] **48-4434**
Kanto Regional Construction Bureau
Snow and cold weather operations at the Kanto Regional Construction Bureau [1988, jpn] **48-580**
Kanzaki, H.
Regulations on studded tire usage and winter road administration in Japan [1993, eng] **48-1187**
Kanzawa, H.
Workshop on study of polar atmosphere and cryosphere, report [1993, jpn] **48-1185**
Kapfinger, J.
Acetate de-icing agent for road surfaces [1993, eng] **48-1939**
'Kapitan Sorokin'
'Kapitan Sorokin' [1992, eng] **48-3225**
Kappenberger, G.
Annual snow accumulation in the Langtang region [1993, eng] **48-2782**
Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present [1993, ita] **48-4103**
Recent changes in glacier tongues in the Langtang Khola basin [1993, eng] **48-2776**
Karal, K.
Proceedings. Vol.2 [1993, eng] **48-4312**
Karavanov, S.B.
Ice damage to the hulls of icebreaking ships [1993, eng] **48-117**
New Russian arctic regulations versus CASPPR [1994, eng] **48-4292**
Karbauskaite, J.
New requirements for buildings in Lithuania directed to energy savings [1994, eng] **48-3857**
Kärcher, B.
Contrail transport under atmospheric conditions [1994, eng] **48-5029**
Karelin, D.V.
Carbon storage in Russian forest tundra [1994, eng] **48-4822**
Karentz, D.
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna* [1992, eng] **48-5096**
Karev, A.
Thermodynamics and radar properties of water skins covering growing hailstones [1993, eng] **48-3753**
Kargel, J.S.
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere [1992, eng] **48-993**
Karhu, S.I.
Predictions of radiowave attenuations due to a melting layer of precipitation [1994, eng] **48-4645**
Karig, F.
Environmental measurements in the Beaufort Sea, spring 1991 [1992, eng] **48-4741**
Karjalainen, M.
Aspects of the circuit board thermal design [1993, eng] **48-760**
Karl, T.R.
Correlation of North American snowfall with temperature changes [1993, eng] **48-1791**
Snow cover effect in spring [1994, eng] **48-2553**
Karlén, W.
Climatic data derived from firn cores, Queen Maud Land [1994, eng] **48-5307**
Snow pattern accumulation patterns in Antarctica [1994, eng] **48-5176**
Karlsson, J.O.M.
Model of diffusion-limited ice growth inside biological cells during freezing [1994, eng] **48-4282**
Kärnä, T.
Modelling of dynamic soil-structure-ice interaction [1992, eng] **48-3701**
Rate effects in brittle ice crushing [1993, eng] **48-92**
Karnaukhov, V.
Decreasing energy expenditures for warming engines before ignition [1994, eng] **48-3085**
Karnovich, V.N.
Reservoir control to prevent tailwater ice jamming [1992, eng] **48-1545**
Tidal power station protection from severe sea ice conditions [1994, eng] **48-4836**
Karol', I.L.
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986 [1993, rus] **48-2484**
Karppinen, T.
Multipurpose icebreaker for the Finnish National Board of Navigation [1993, eng] **48-4344**
Karr, D.G.
Damage evolution during impact of an ice bar with lateral confinement [1993, eng] **48-4334**
Nonlinear dynamic response of a simple ice-structure interaction model [1993, eng] **48-2686**
Propagation of continuum damage in a viscoelastic ice bar [1994, eng] **48-4838**
Karsten, A.
Trigonometric leveling 1992 on Ronne Ice Shelf [1992, eng] **48-245**
Karulin, E.B.
Propeller thrust and torque in ice milling mode of icebreakers [1993, eng] **48-122**
Kasahara, A.
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids [1993, eng] **48-5068**
Recycling systems for waste materials of reconstruction of streets in Sapporo City [1993, eng] **48-5076**
Kasai, A.
White Spot Program in Denmark [1987, jpn] **48-549**
Kasami, H.
Properties of concrete at very low temperature [1982, eng] **48-5394**
Kaser, G.
Long-term fluctuations of East African glaciers [199?, ita] **48-4104**
Kashevarov, IU.B.
Hydroelectric station with inflatable hoses for ice control [1992, eng] **48-5532**
Kashiwagi, T.
Freezing of an aqueous salt solution through a porous film [1993, eng] **48-4368**
Kasibhatla, P.S.
Impact of global NOx sources on the northern latitudes [1993, eng] **48-3050**
Kasischke, E.S.
SAR imaging of Alaskan forest fires [1994, eng] **48-5137**
Kasper, A.
Alpine atmospheric composition and aerosol sampling techniques [1994, eng] **48-5138**
Kasse, C.
Weichselian ice-wedge formation in Netherlands floodplains [1993, eng] **48-471**
Kassiri, N.
Effect of highway geometry on distress of asphalt pavements in cold climates [1993, eng] **48-5079**
Kastelein, M.
Pilot field project to evaluate icing models in Ontario, Canada [1993, eng] **48-823**
Katenin, A.E.
Lichens of the central part of the Iskaten Mountain ridge in western Chukotskiy Peninsula [1992, rus] **48-1623**
Second instance of *Populus balsamifera* (Salicaceae) in the eastern part of the Chukotskiy Peninsula [1993, rus] **48-1646**
Katko, K.
Goals and methods of winter maintenance in Finland [1993, eng] **48-1188**
Kato, C.
Effect of snow cover and air temperature on forest distribution [1990, jpn] **48-3426**
Kato, H.
Numerical simulation of pack ice movement using the momentum conservation method [1993, jpn] **48-1052**
Pack ice movement simulation using a distributed mass/discrete floe model [1993, eng] **48-171**
Kato, J.
Development of a new type of silicone rubber phase spacer [1993, eng] **48-849**
Kato, K.
Experimental study of ice forces on multi-legged structures [1990, jpn] **48-4678**
Ice forces on inclined circular structures—theoretical and experimental studies [1993, jpn] **48-1037**
Pulsed flow control device for snow removal drains [1992, jpn] **48-3160**
Kato, M.
Study on snow attaching to the TACAN antenna [1994, eng] **48-4215**
Kato, T.
Study on acid snow [1987, jpn] **48-550**
Katrich, I.IU.
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992 [1993, eng] **48-4532**
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean [1993, eng] **48-4555**
Katsman, F.
Experimental investigations of some polar sailing problems [1993, eng] **48-4347**
Katsuragawa, Y.
Application of in-situ surface recycling methods in cold areas [1993, eng] **48-5072**
Katsuragi, K.
Non-water-sprinkling type snow melting method and system [1991, eng] **48-1517**
Kattelmann, R.C.
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA [1993, eng] **48-2794**
Groundwater contributions to the hydrochemistry of an alpine basin [1990, eng] **48-1599**
Rain-dominated winter storms in California's Sierra Nevada [1993, eng] **48-2929**

Role of snowmelt in generating streamflow during spring in east Nepal [1993, eng] 48-2777

Kattner, G.
Weddell Sea algal communities [1993, eng] 48-597

Kaufman, D.S.
Holocene ice stream advance, Hudson Strait [1993, eng] 48-2340

Kaup, E.
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica) [1988, eng] 48-2550
Solar radiation in the water bodies of Queen Maud Land [1988, eng] 48-2549

Kauppinen, T.
Air-tightness of private houses—typical problems and case studies [1994, eng] 48-3876

Kaurichev, I.S.
Pedogenic functions of water-soluble organic matter in taiga landscapes [1993, eng] 48-1888

Kawa, S.R.
Reactive nitrogen species ratios in the polar atmosphere [1993, eng] 48-2578

Kawabata, T.
Changes in sidewalk snow removal equipment [1989, jpn] 48-702
Winter cities NOW [1989, jpn] 48-713

Kawabe, H.
Freezing of water flow in a horizontal cooled tube [1993, eng] 48-865

Kawada, K.
Structures of snow cloud in dry-snow avalanches [1993, eng] 48-2847

Kawamura, H.
Snow area detection by using AVHRR/NOAA [1993, eng] 48-1724

Kawamura, K.
Performance evaluation of anti-icing pavement [1993, eng] 48-1196
Winter road-surface conditions and pavement problems in Hokkaido [1993, eng] 48-5084

Kawamura, R.
Relationship between seasonal snow cover in Japan and recent climatic change [1993, eng] 48-2846

Kawamura, T.
Flow and oceanic structure under fast ice in Lützow-Holm Bay [1993, eng] 48-1060
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992 [1994, eng] 48-4765
Portable FM-CW radar for collecting the ground truth data of snowpack [1993, eng] 48-1723
Sea-ice growth in Ongul Strait, Antarctica [1993, eng] 48-2834
Thermal structure of the coastal polynya off Showa Station [1993, jpn] 48-2875

Kawasaki, K.
Freeze-thaw effects on activated sludge processing [1994, eng] 48-3635

Kawasaki, T.
Experimental study on local ice pressures acting on structures [1993, jpn] 48-1038
Study on ice forces acting on floating structures [1990, jpn] 48-4677

Kawasaki, Y.
Water exchange between the Okhotsk Sea and Pacific Ocean [1993, eng] 48-1030
Water mass fine structure around Kuril Islands [1993, eng] 48-1029

Kawashima, K.
Metamorphism in a perennial snow patch [1993, eng] 48-2838

Kawashima, T.
Study on snow-water mixture flow in snow drain [1993, jpn] 48-1973

Kaye, S.
Law of the sea and the polar regions [1994, eng] 48-5120

Kayo, Y.
Ice load distribution on an icebreaker bow [1993, eng] 48-118

Kazakov, N.V.
Forest tundras of Kamchatka: problems of protection and use [1989, rus] 48-901

Kazama, S.
Snow area detection by using AVHRR/NOAA [1993, eng] 48-1724
Snow cover evaluation with satellite data [1992, eng] 48-4447

Kazanskiĭ, M.M.
Hydrographers get to know icebergs [1993, rus] 48-1905
Improving the information content of ice manuals [1992, rus] 48-2743
Thermohaline structure around waters in coastal glaciers and icebergs [1987, rus] 48-2756

Kazantsev, V.V.
Warehouse instability on permafrost bases in BAM [1993, eng] 48-1104

Kazarnovskiĭ, V.D.
Procedure for predicting settlements of thawing bases for engineering calculations [1994, eng] 48-2805

Kazarova, E.B.
Spin probe study of frozen aqueous solutions [1989, eng] 48-3756

Kazmierczak, M.
Deterministic multi-zone ice accretion modeling [1991, eng] 48-4872

Kazmierowski, T.J.
Evaluation of a major concrete pavement rehabilitation and overlay project in Ontario [1993, eng] 48-5081
Performance of in-situ hot mix recycling as a maintenance technique in Ontario [1993, eng] 48-5073

Ke, S.J.
Mathematical model of Yellow River ice regime control [1992, eng] 48-1549

Kececioglu, I.
Melting of a porous medium saturated with water near its density maximum [1993, eng] 48-1614

Keeney, D.R.
Effect of freeze-thaw events on mineralization of soil nitrogen [1992, eng] 48-3412

Kehew, A.E.
Pleistocene glacial-lake spillway incision [1994, eng] 48-5140

Keigwin, L.D.
Glacial Lake Agassiz meltwater influx into Lake Michigan [1994, eng] 48-4951

Keimig, F.T.
Recent changes in arctic temperature inversions [1993, eng] 48-1469

Keinonen, A.
Ice-breaking performance of a new arctic research vessel [1994, eng] 48-4302
Icebreaker for North West Passage—a designer's perspective [1994, eng] 48-4311
MSV Fennica, a novel icebreaker concept [1994, eng] 48-4301

Keinonen, A.J.
Model/full scale ice analysis. Volume 1 [1993, eng] 48-3334

Keith, T.G., Jr.
Development of an improved model for runback water on aircraft surfaces [1994, eng] 48-4063
Efficient finite element method for aircraft deicing problems [1993, eng] 48-1371

Kelder, H.
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE [1994, eng] 48-5508

Keller, F.
Application of BTS-measurements for modelling mountain permafrost distribution [1993, eng] 48-399
Interaction between snow and permafrost: basic study in the Upper Engadin [1994, ger] 48-5036
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps [1993, eng] 48-411

Keller, L.M.
Antarctic automatic weather station data for the calendar year 1991 [1993, eng] 48-1662
Antarctic automatic weather station data for the calendar year 1992 [1994, eng] 48-4131

Keller, P.
Environmental measurements in the Beaufort Sea, spring 1991 [1992, eng] 48-4741

Kelley, C.A.
Radon 222 tracing of boreal forest gas exchange [1994, eng] 48-4639

Kelley, J.
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea [1993, eng] 48-1062

Kelley, J.J.
Aqueous ethanol as an ice-drilling fluid [1993, eng] 48-3598
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers [1990, eng] 48-4686
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals [1994, eng] 48-5354
Development of shallow and deep ice coring devices [1990, eng] 48-4675
Directional drilling in glacier boreholes [1994, eng] 48-5342
Drilling of glacier boreholes with a hydrophilic liquid [1994, eng] 48-5341
Heated drilling bit and thermoelastic stresses in an ice core [1994, eng] 48-5358
Ice coring and drilling technologies developed by the Polar Ice Coring Office [1994, eng] 48-5328
Interaction of hydrophilic liquid with ice [1993, eng] 48-875
On the effects of sastrugi on snow albedo [1990, eng] 48-4671

Kelley, J.T.
Sea level change and Quaternary sediments off Maine [1992, eng] 48-1925

Kelley, M.C.
Polar mesosphere summer radar echoes: observations and current theories [1993, eng] 48-1649

Kellomäki, S.
Scots pine yield response to simulated global warming [1993, eng] 48-1650

Kelly, R.E.J.
Monitoring snow area and depth with integration of remote sensing and GIS [1993, eng] 48-2613
Suspended sediment relationships in glacier-fed Pakistani rivers [1990, eng] 48-2664

Kelty, J.R.
New short borehole logging tool [1994, eng] 48-5348

Kemnitz, R.T.
Water resources data for Alaska, water year 1992 [1993, eng] 48-1462

Kemp, K.
Arctic aerosols in Greenland [1993, eng] 48-3916

Kempema, E.W.
Influence of ice on southern Lake Michigan coastal erosion [1994, eng] 48-4161
Video monitoring of nearshore ice in southern Lake Michigan [1994, eng] 48-4162

Kennedy, A.D.
Water as a biogeographical constraint in Antarctica [1993, eng] 48-2416

Kennedy, K.P.
Dynamic activity in medium-scale ice indentation tests [1994, eng] 48-3829
Global ice loads on arctic structures interpreted from foundation displacements [1994, eng] 48-3363
Large-scale ice fracture experiments: phase 1 [1993, eng] 48-143
Large-scale ice fracture experiments: phase 2 [1994, eng] 48-5568

Kennedy, V.C.
Long-term frozen storage of stream water samples [1993, eng] 48-2055

Kennepohl, G.
Development of stone mastic asphalt mixes for Ontario use [1993, eng] 48-5086

Kennett, J.P.
Middle Miocene climatic transition [1994, eng] 48-5412

Kennett, M.
Helicopter-borne radio-echo sounding of Svartisen, Norway [1993, eng] 48-1295

Kenny, J.F.
Frozen soil infiltration defined by air permeability [1993, eng] 48-3836

Kenny, S.P.
Influence of damage on the creep behavior of ice [1992, eng] 48-5378

Kent, A.
Experimental low-temperature physics [1993, eng] 48-5270

Kent, R.J.
Hazardous waste strategy for communities in Canada's Northwest Territories [1994, eng] 48-3356

Kenyon, N.H.
Polar continental margins: studies off East Greenland [1993, eng] 48-2149

Keremkulov, V.A.
Formation of floods caused by outbursts from snow dams [1992, rus] 48-4453

Kergomard, C.
Sea ice surface radiation flux from satellite data [1993, eng] 48-1323
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery [1994, eng] 48-3447

Kerkmann, J.
Avalanches generated by snow and thunderstorms in Switzerland [1993, ita] 48-1132

Kern, J.
Interferential type of climate, reason for damages to overhead lines [1993, eng] 48-843

Kerr, J.B.
Record low ozone values over Canada in early 1993 [1993, eng] 48-1114

Kerr, R.A.
Ozone hole reaches new low [1993, eng] 48-997

Kerr, W.
Glass transition in the freezing process [1994, eng] 48-4658

Kerr, W.L.
Thermodynamics and frozen foods [1993, eng] 48-337

Kershaw, G.P.
Palsa microclimatology in Canadian mountain soils [1993, eng] 48-412
Shrub growth responses in a clear cut subarctic landscape [1993, eng] 48-2660

Kershaw, P.J.
Sellafield as a source of radioactivity to the Barents Sea [1993, eng] 48-4531
Transfer of reprocessing wastes from NW Europe to the Arctic [1993, eng] 48-4521

Kessel', S.A.
AARI Arctic expeditions in 1990 [1992, eng] 48-735

Kessinger, C.
Snow-band formation during an aircraft accident [1993, eng] 48-2358

Kestler, M.A.
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis [1994, eng] 48-3369
Spatial variability of falling weight deflectometer data: a geostatistical analysis [1994, eng] 48-4909

Kettleborough, J.A.
Three dimensional modelling of chlorine activation in the arctic stratosphere [1994, eng] 48-5505

Key, J.
Mapping sea ice leads with a coupled numeric/symbolic system [1990, eng] **48-2427**
Radiometric acquisition of sea ice surface temperatures [1993, eng] **48-1351**
Report on polar regions AVHRR workshop [1993, eng] **48-1293**
Satellite detection of sea ice leads—atmospheric factors [1993, eng] **48-1327**
Sea ice-atmosphere interaction and surface energy flux [1993, eng] **48-2641**

Key, J.R.
Arctic stratospheric aerosols following Mt. Pinatubo eruptions [1993, eng] **48-2327**
Comparison of two satellite-derived albedo data sets for the Arctic Ocean [1993, eng] **48-1805**
Geophysical field area fraction estimation [1993, eng] **48-2161**

Key Lake spill. Final report
Key Lake spill. Final report [1984, eng] **48-3677**

Key, R.M.
^{228}RA as a tracer for shelf water in the Arctic Ocean [1993, eng] **48-4544**

Keys, H.J.R.
Stratigraphic drilling off Cape Roberts in the Ross Sea [1994, eng] **48-5103**

Keys, J.R.
Environmental impact assessment, Cape Roberts Project [1992, eng] **48-2323**

Keyser, L.F.
Morphology of nitric acid and water ice films [1993, eng] **48-603**
Simulation of heterogeneous reactions within polar stratospheric clouds [1993, eng] **48-2463**
Surface areas and porosities of ices used to simulate stratospheric clouds [1993, eng] **48-1247**
Uptake of HCl in water ice and nitric acid ice films [1993, eng] **48-966**

Khan, M.I.
Surface melting on Barpu Glacier, Karakoram Himalaya [1990, eng] **48-2665**

Khan, S.A.
Frost resistance of portland cement concrete with admixtures [1992, eng] **48-805**

Kharchenko, P.IU.
Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs [1992, rus] **48-1949**

Khare, B.N.
Irradiation of simulated cometary organic ices [1993, eng] **48-995**

Kharin, B.N.
Device for testing ski sliding surface [1990, eng] **48-2187**

Kharionovskiĭ, V.V.
Distinguishing features of pipeline construction in arctic regions [1994, eng] **48-3990**
Evaluation problems of Russian gas pipeline constructions' resource [1994, eng] **48-3025**

Kharitonov, M.A.
Rock and frozen ground breaking device using heating elements [1992, eng] **48-5533**

Kharyshak, N.I.
Structures to protect river banks against ice erosion [1992, eng] **48-5518**

Khatkhate, A.A.
Capacitive ice detector for aircraft [1993, eng] **48-2638**

Khattatov, V.
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE [1994, eng] **48-5465**

Khattatov, V.U.
Atmospheric ozone study (Ozone-90) [1993, rus] **48-2483**
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989 [1993, rus] **48-2486**

Khersonskiĭ, E.S.
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention [1992, eng] **48-1244**

Khitun, O.V.
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula [1993, rus] **48-1644**

Khlevchuk, V.R.
Heat engineering and soundproofing qualities of multi-storied enclosed houses [1979, rus] **48-1289**

Khmelevskoĭ, V.K.
Electric geophysical exploration by resistance methods during investigations into frozen rocks [1991, rus] **48-1389**

Khodadoust, A.
Flow field on a wing with glaze ice accretion [1993, eng] **48-3565**

Khokhlov, G.P.
Investigation of sea ice interaction with SHF-electromagnetic field [1993, eng] **48-1903**

Kholod, S.S.
Role of snow cover in the differentiation of vegetation in southern Wrangel' Island: the cenotic level [1993, rus] **48-1630**
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting [1993, rus] **48-4226**

Khomentovskiĭ, P.A.
Forest tundras of Kamchatka: problems of protection and use [1989, rus] **48-901**

Khoo, H.A.
Finite-element simulation of ice-sheet indentation [1994, eng] **48-4817**

Khrol, V.P.
Atlas of the energy balance of the northern polar area [1992, rus] **48-1479**

Khrustalev, L.N.
Global warming effects on structures built on permafrost soils [1993, eng] **48-1756**
Rational methods of building foundations in the southern part of the cryolithozone [1992, rus] **48-4804**

Khrustaleva, M.A.
Terrain and geochemical aspects of the interaction between natural and anthropogenic factors [1990, rus] **48-2072**

Khurgin, B.
Two-resistor ice detector [1989, eng] **48-4081**

Khusnatdinov, N.N.
On the nature of photo charge carriers in ice [1994, eng] **48-4925**
Photoplastic effect on ice [1994, eng] **48-4812**

Khvorost'ianov, V.I.
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds [1993, rus] **48-2493**

Kida, M.
Rubber composition for all-weather tires [1991, eng] **48-2255**

Kidder, S.Q.
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery [1984, eng] **48-3075**

Kieffer, H.H.
Quasi-periodic climate change on Mars [1992, eng] **48-5045**
Seasonal cycle of carbon dioxide on Mars [1992, eng] **48-5043**

Kienholz, H.
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps [1990, eng] **48-3034**

Kiernicki, J.
AC flashover performance of ice-coated post insulators [1993, eng] **48-851**

Kieser, B.N.
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic [1993, eng] **48-3911**

Kiessling, F.
Ice loads on overhead power lines in Germany and their impact on reliability and design [1993, eng] **48-829**

Kikukawa, S.
Application of in-situ surface recycling methods in cold areas [1993, eng] **48-5072**

Kilgus, C.C.
Design of a scanning, spaceborne radar altimeter for measuring polar ice [1993, eng] **48-1722**

Kilius, L.R.
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya [1993, eng] **48-4556**

Kim, D.H.
Snowdrifting simulation around a Davis Station workshop [1993, eng] **48-2911**

Kim, H.O.
Nonlinear analysis of incompressible soil foundation for gravity arctic structures [1993, eng] **48-4361**

Kim, K.S.
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures [1993, eng] **48-2536**

Kim, L.V.
Experimental study of ice-cylindrical pile interaction [1993, eng] **48-4317**

Kim, M.H.
Melting heat transfer along a horizontal heated tube immersed in liquid ice [1993, eng] **48-1105**
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall [1993, eng] **48-2460**

Kim, N.S.
Universal characteristic of ice-forming nuclei [1992, eng] **48-3765**

Kim, W.H.
Effects of freezing on hydraulic conductivity of compacted clay—discussion [1993, eng] **48-1785**

Kimata, R.
Development of a new type of silicone rubber phase spacer [1993, eng] **48-849**

Kimble, J.M.
Determination of the amount of carbon in highly cryoturbated soils [1993, eng] **48-2302**

Kimble, K.R.
Particle trajectory computer program for icing analysis of axisymmetric bodies [1992, eng] **48-4861**

Kime, J.A.
Hydraulic system for use with snow-ice removal vehicles [1990, eng] **48-2194**

Kimura, T.
Detection of water on road surface by the polarized light [1993, jpn] **48-1851**
Field test of a new snow-particle counter (SPC) system [1993, eng] **48-2843**
Information system to predict road icing in Japan [1993, jpn] **48-4235**
Measurements of drifting snow particles [1991, jpn] **48-3422**
Snow adhesion to roof sheets at sub-freezing temperatures [1992, jpn] **48-3165**

Kind, R.J.
Effects of frost on wing aerodynamics and take-off performance [1991, eng] **48-3687**
Wind-induced heat transfer through permeable clothing [1993, eng] **48-874**

King, J.C.
Control of near-surface winds over an antarctic ice shelf [1993, eng] **48-194**

King, K.M.
Tower-based measurements of CO_2 wetland fluxes [1994, eng] **48-4609**
Wetland energy budget measurements using Bowen ratio techniques [1994, eng] **48-4610**

King, L.
Geomorphological changes in arctic permafrost [1993, eng] **48-413**
Mountain permafrost in Europe [1993, eng] **48-5186**
Permafrost influence on mountain tunnelling [1993, eng] **48-468**

King, L.H.
Till in the marine environment [1993, eng] **48-5014**

King, M.D.
Radiative properties of clouds [1993, eng] **48-1881**

King, T.
Burning of diesel oil spill [1993, eng] **48-3719**

Kinki Regional Construction Bureau
Assuring the safety of road traffic in winter [1988, jpn] **48-582**

Kinoshita, S.
Design of a snow melting tank using treated wastewater [1994, eng] **48-5008**

Kinouchi, S.
Isotopic fractionation during grain coarsening of wet snow [1993, eng] **48-2840**

Kipfstuhl, J.
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] **48-1899**
Properties of marine ice, a new ice type [1994, eng] **48-3303**

Kipfstuhl, S.
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core [1992, eng] **48-243**

Kipriianova, D.D.
Deformation of a pressure vessel during failure caused by a technological defect [1990, rus] **48-55**

Kirby, G.E.
Topographic controls on glacial lake development [1993, eng] **48-5012**

Kirby, S.H.
Flow of ices in the ammonia-water system [1993, eng] **48-923**

Kiriyama, T.
Study on the evaluation methods for the strength of pavement materials [1993, eng] **48-5091**

Kirkbride, M.P.
Oscillations of New Zealand valley glaciers [1993, eng] **48-1382**

Kirnbauer, R.
Entering the era of distributed snow models [1994, eng] **48-4706**
Lysimetric snow pillow station at Kühtai/Tyrol [1990, eng] **48-1580**

Kiselev, A.A.
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention [1992, eng] **48-1244**

Kiselev, IU.G.
Arctic yesterday and today [1992, rus] **48-2741**

Kishi, S.
Ships' navigability in the ice-infested waters around the port of Abashiri [1990, jpn] **48-4676**

Kishigami, H.
Long-term variations in ice concentration off Hokkaido [1993, jpn] **48-1053**
Spectral extinction coefficient of sea ice [1993, jpn] **48-1078**

Kishima, Y.
Properties of concrete at very low temperature [1982, eng] **48-5394**

Kishimoto, H.
Experimental study of ice forces on multi-legged structures [1990, jpn] **48-4678**
Ice forces on inclined circular structures—theoretical and experimental studies [1993, jpn] **48-1037**

Kishino, M.
Spectral light environment in sea ice [1993, eng] **48-1077**

Kitagawa, H.
Study on ice tank experimentation (part 2) [1993, eng] **48-174**

Kitahara, T.
Controlling the proportion of snow in snow removal drains [1992, jpn] 48-3164
Development of a snow-fraction meter based on the conductometric method [1993, eng] 48-2828
Hydraulic conveying of snow and ice—development of a snow- fraction meter [1993, jpn] 48-3184

Kitamura, H.
Powered snowplow [1991, eng] 48-2246

Kitamura, N.
Estimation of stresses on bridge railings by accumulated snow [1989, jpn] 48-672

Kitaura, M.
Analysis of snowfall characteristics and various snow disasters in urban area [1993, jpn] 48-2003
Evaluating snow risk potential in urban areas [1993, jpn] 48-1980

Kite, G.W.
Analysing hydrometeorological time series for evidence of climatic change [1993, eng] 48-1154
Application of a land class hydrological model to climatic change [1993, eng] 48-285

Kivelä, J.
Experiments with cutting tools to simulate propellers in ice [1993, eng] 48-2128

Kivimaa, S.
Ice load measurements on board the cutter M.S. *Uisko* [1993, eng] 48-119

Kjerstad, N.
Northeast-Passage: a nautical challenge for the next century [1993, eng] 48-4343

Kjome, N.T.
Antarctic ozone and stratospheric cloud observations 1991 [1993, eng] 48-189

Klas, K.H.
High efficiency snowthrower [1990, eng] 48-2193

Klassen, R.A.
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1) [1994, eng] 48-4121

Klečka, G.M.
Biodegradation of aircraft deicing fluids in soil at low temperatures [1993, eng] 48-3265

Kleemann, A.
7 MW multi purpose heavy duty icebreaker [1993, eng] 48-105

Klein, S.A.
Investigation of water as a refrigerant [1993, eng] 48-2612

Kleman, J.
Glacial land forms indicative of a partly frozen bed [1994, eng] 48-5162

Klemas, V.V.
NOAA coastal land cover classification system [1993, eng] 48-1097

Klemedtsson, L.K.
Methane and nitrous oxide flux in a Wyoming subalpine meadow [1993, eng] 48-2548

Klemm, O.
Tropospheric acidic gases over Canadian taiga [1994, eng] 48-4622

Klenke, M.
Geomorphology and thawing dynamics at Potter Peninsula [1994, eng] 48-3486

Kleven, L.A.
Ice detector probe [1991, eng] 48-1942

Kliachanov, A.P.
Natural air exchange in buildings exposed to the northern conditions [1994, eng] 48-3875

Kliagina, L.P.
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986 [1993, rus] 48-2484

Klimok, V.I.
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period [1992, rus] 48-3724

Klimov, IU.S.
Increasing the reliability of a nuclear icebreaker steam-turbine plant with a closed air-water cooling system [1992, rus] 48-751

Klimovskiĭ, I.V.
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water [1992, rus] 48-4783
Mining impact on permafrost hydrology [1993, eng] 48-522

Klimowicz, Z.
Influence of relief and lithology on soil formation in West Spitsbergen [1993, eng] 48-414

Kline, R.
Tillage variation effects on river basin runoff [1993, eng] 48-3140

Klingensmith, K.M.
Floodplain soil denitrification along the Tanana River [1993, eng] 48-644
Nitrogen mineralization in floodplain soils of the Tanana River [1993, eng] 48-645

Klinger, L.F.
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland [1994, eng] 48-4605

Klingmüller, O.
Conditions for a load combination ice-earthquake [1991, eng] 48-2633

Kliuchikov, K.IU.
Heat and mass transfer in frozen saline kaolin [1992, chi] 48-2009
Heat-mass transfer and deformation in frozen saline kaolin [1992, chi] 48-1408

Kliusov, A.A.
3CaO-SiO2 hydration under decreased temperatures [1994, eng] 48-2317

Klockow, D.
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores [1993, eng] 48-1818

Klokov, V.
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984 [1988, eng] 48-2552

Klöser, H.
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands) [1994, eng] 48-4983
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands) [1994, eng] 48-3042

Kloster, K.
Satellite mapping of icebergs in the Barents Sea [1993, eng] 48-126

Klostermeyer, J.
Two-ion ice particle model of the polar summer mesopause region [1994, eng] 48-4050

Klug, D.D.
Low-frequency modes in amorphous ice [1994, eng] 48-5025

Klüpfel, T.
Airborne spectroscopy of polar stratospheric chemical properties [1994, eng] 48-5480
Ground-based measurements of Greenland stratospheric chemistry [1994, eng] 48-5481

Knapp, C.M.
Alaska North Slope oil-field restoration research strategy [1992, eng] 48-4893

Knappenberger, P.C.
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA [1993, eng] 48-2596

Knebel, H.J.
Sedimentary framework of Boston Harbor, Massachusetts [1992, eng] 48-1926

Knight, C.W.
Frost-seeding of summer turnip rape in the subarctic [1992, eng] 48-2156
Urea nitrogen budget for a subarctic agricultural soil [1993, eng] 48-696

Knight, D.H.
Influence of snow avalanches on mountain vegetation patterns [1994, eng] 48-3505

Knight, P.G.
Glaciers [1993, eng] 48-3137
Hypothesis regarding ice-dammed lake drainage initiation [1993, eng] 48-3597
Ice sheet basal flow around large obstacles [1994, eng] 48-5172

Knight, R.W.
Correlation of North American snowfall with temperature changes [1993, eng] 48-1791
Snow cover effect in spring [1994, eng] 48-2553

Knip, M.
Proceedings [1992, eng] 48-4961

Knoke, G.S.
Phenomenological constitutive model for columnar ice [1993, eng] 48-4321

Knott, T.
Freeze plug isolation for undersea gas line [1994, eng] 48-5046

Knox, D.F.
Instruments for measuring subice algal profiles and productivity *in situ* [1993, eng] 48-3201

Knox-Johnston, R.
Sea, ice and rock: sailing and climbing above the Arctic Circle [1993, eng] 48-1931

Knudsen, B.
Northern Hemisphere chlorine activation by polar stratospheric clouds [1994, eng] 48-5493

Knudsen, B.M.
Accuracy of the isentropic trajectories calculated for the EASOE campaign [1994, eng] 48-5440
Airborne spectroscopy of polar stratospheric chemical properties [1994, eng] 48-5480

Knudsen, H.
Larger fungi associated with *Betula pubescens* in Greenland [1990, eng] 48-84

Knuth, K.V.
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska [1994, eng] 48-5409

Knuts, S.
Stretching frequencies in high pressure ice [1993, eng] 48-214

Ko, M.K.W.
Two-dimensional model of the stratosphere. 1. [1993, eng] 48-3636
Two-dimensional model of the stratosphere. 2. [1993, eng] 48-3637

Kobayashi, D.
Effect of snow cover on the thermal characteristics of the surface layer [1992, jpn] 48-3208
Hydro-meteorological automatic observation system and research plan [1992, jpn] 48-3218
Snowmelt hydrograph separation [1993, eng] 48-1774
Snowmelt over permafrost area in the arctic Alaska [1990, eng] 48-4670
Snowmelt runoff in a boreal forest in Quebec (I) [1992, jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II) [1992, jpn] 48-3210

Kobayashi, S.
Japanese expedition to Spitsbergen 1991-1992 [1993, eng] 48-1857
Movement and deposition of snow particles in snow storm [1991, jpn] 48-3421
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992 [1993, eng] 48-1861
Simulation of a destructive avalanche at Maseguchi, Japan [1993, eng] 48-2821

Kobayashi, T.
Development of technology for hydraulic transport of snow [1987, jpn] 48-281
Experiment on using overflow lines for snow melting [1988, jpn] 48-663
Experimental study of snow removing channel system driven by water jets [1993, jpn] 48-3189
Snow removal system by gravity [1993, jpn] 48-3172

Kobiyama, M.
Reciprocating snow to ice converter; density of the input snow [1993, jpn] 48-3174

Koç, N.
Northern Hemisphere response to orbital forcing [1994, eng] 48-4950
Paleoceanography of Greenland, Iceland and Norwegian seas [1993, eng] 48-2879

Kocaaslan, G.
Determination of the heating period of the rooms from the climatic comfort viewpoint [1994, eng] 48-3847

Koch, R.A.
Development of an arctic ray model [1994, eng] 48-4064

Kochurov, B.I.
Means of optimizing the water regime of soils in the steppe landscapes of Siberia [1990, rus] 48-2073

Koci, B.
AMANDA project: drilling precise, large-diameter holes using hot water [1994, eng] 48-5346
Development of shallow and deep ice coring devices [1990, eng] 48-4675
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude [1994, eng] 48-5363
Vertical strain measurement in core holes [1994, eng] 48-5350

Koci, B.R.
Aqueous ethanol as an ice-drilling fluid [1993, eng] 48-3598
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers [1990, eng] 48-4686
Directional drilling in glacier boreholes [1994, eng] 48-5342

Kodama, K.
Snow tyre having good control stability [1993, eng] 48-4433

Kodama, S.
Katabatic wind variability over East Antarctica [1993, eng] 48-202

Kodama, Y.
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988 [1992, jpn] 48-3206
Effect of snow cover on the thermal characteristics of the surface layer [1992, jpn] 48-3208
Experiment on ice cutting under high liquid pressure and low temperature [1994, eng] 48-5338
Hydro-meteorological automatic observation system and research plan [1992, jpn] 48-3218
On the boundary layer changes during the sea ice formation [1993, eng] 48-1074
On the breakup of the nocturnal cooling layer in a basin in snowmelt season [1992, jpn] 48-3207
Snowmelt over permafrost area in the arctic Alaska [1990, eng] 48-4670
Snowmelt runoff in a boreal forest in Quebec (I) [1992, jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II) [1992, jpn] 48-3210

Koehler, B.G.
Spectroscopic studies of model polar stratospheric cloud films [1992, eng] 48-2635

Koelemeijer, R.
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery [1993, eng] 48-1294

Koh, G.
FMCW radar investigation of snow pack evolution [1993, eng] 48-2936
Observations on machine-made snow as a millimeter-wave obscurant [1993, eng] 48-3031

Koh, Y.I.
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash [1993, eng] 48-3117

Kohlman, D.L.
Glycol ice protection system on a general aviation airfoil [1981, eng] **48-1142**
Kohshima, S.
Biotic acceleration of melting in Yala Glacier [1993, eng] **48-2795**
Kohut, R.J.
Physiological response to controlled freezing of attached red spruce branches [1993, eng] **48-2452**
Red spruce bud mortality at Whiteface Mountain, New York [1993, eng] **48-1217**
Koike, T.
Microwave backscattering characteristics of snow [1993, eng] **48-1711**
New methods to study snowfall using remote sensing [1993, eng] **48-2874**
Passive-microwave remote sensing of snow [1993, eng] **48-2871**
Snow cloud observations from MOS-1 data [1990, jpn] **48-4874**
Snow hydrology [1994, eng] **48-4931**
Snowmelt runoff model using remote sensing [1990, jpn] **48-3418**
Kojima, S.
Plant ecological relationships in the high arctic [1994, eng] **48-4996**
Kokawa, T.
Construction of ice domes at Asuka Station [1993, eng] **48-1182**
Kokovkin, A.V.
Qualitative condition of surface waters in Komi ASSR [1990, rus] **48-5403**
Kolb, W.
Thorium, uranium and plutonium in surface air at Vardö [1993, eng] **48-4548**
Koledin, V.V.
Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual [1991, rus] **48-1266**
Kolesnikov, A.I.
Neutron scattering spectra of amorphous, Ih and VI ice [1994, eng] **48-3620**
Kolesnikov, E.I.
Method of daily forecasting of wet avalanches under conditions in the central mountain zone of Zailiyskiy Alatau [1992, rus] **48-4458**
Kollé, J.J.
Embedded optical fiber ice stress gauge. Phase I Final report [1991, eng] **48-3666**
Kolleganov, A.V.
Using dry mixtures for concreting extended constructions on a frozen foundation [1992, rus] **48-1392**
Kolomeets, E.V.
Snow and soil moisture-reserve measuring device [1992, eng] **48-4072**
Kolström, M.
Scots pine yield response to simulated global warming [1993, eng] **48-1650**
Kolunin, V.
Mechanisms of layer structures growing during ground freezing [1993, eng] **48-520**
Komarov, I.A.
Thermophysical and electric properties of saline frozen soils [1993, eng] **48-890**
Komarov, S.A.
Remote sensing of frozen soils in VHF range [1993, eng] **48-1726**
Komissarov, I.B.
Gradientometric magnetic survey of arctic ice [1993, eng] **48-3248**
Kömle, N.I.
Thermal behavior of rocky material in contact with ice [1994, eng] **48-4154**
Komotskov, A.V.
Results of measurements of negative ion concentration in the Arctic stratosphere [1993, rus] **48-2494**
Konagai, N.
Influences of regulation of studded tire in Hokkaido [1993, eng] **48-1200**
Road snow melting by solar energy and heat pipes [1986, jpn] **48-264**
Kondepudi, S.N.
Simulation of ice-covered heat pump performance [1993, eng] **48-2151**
Verification of model of ice-covered heat pump performance [1993, eng] **48-2152**
Kondo, H.
Basic principles of alpine ski bindings and tribology [1994, jpn] **48-3998**
Kondo, J.
One-dimensional model of the evolution of snow-cover characteristics [1993, eng] **48-2822**
Kondo, S.
Evaluation of accuracy for numerical sea ice forecast in the seas around Hokkaido [1990, jpn] **48-4681**
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989 [1990, jpn] **48-4680**
Kondo, Y.
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica [1994, eng] **48-5030**
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere [1994, eng] **48-5452**
Kondoh, A.
Water equivalent of snow and backscattering at C-band [1993, eng] **48-1708**
Kondrat'ev, K.IA.
Global climate [1992, rus] **48-304**
Kondrat'ev, V.G.
Experience and primary tasks of geocryological studies for Russian railways [1994, eng] **48-3405**
Kong, J.A.
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991 [1991, eng] **48-3673**
Model for remote sensing of anisotropic layers [1993, eng] **48-2408**
Third Stokes parameter emission from a periodic water surface [1993, eng] **48-2109**
Koniakhin, M.A.
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia [1993, eng] **48-533**
Koniukhov, A.G.
Extinction and scattering of millimeter waves by cloud and precipitation particles [1992, eng] **48-1022**
Können, G.P.
Polarimetric search for ice crystals in the upper atmosphere of Venus [1993, eng] **48-1213**
Kono, T.
Study on traffic volume at signal controlled intersections in winter [1986, jpn] **48-21**
Water exchange between the Okhotsk Sea and Pacific Ocean [1993, eng] **48-1030**
Water mass fine structure around Kuril Islands [1993, eng] **48-1029**
Kononova, S.A.
Thermohaline structure around waters in coastal glaciers and icebergs [1987, rus] **48-2756**
Konorovskii, A.K.
Use and preservation of agricultural resources of Yakutia; collected scientific papers [1988, rus] **48-908**
Konovalov, V.G.
Predicting a lake outburst in Tien Shan [1990, eng] **48-1581**
Konrad, J.M.
Field study of two road sections during a freeze-thaw cycle [1992, eng] **48-2113**
Frost heave characteristics of a clayey silt subjected to small temperature gradients [1994, eng] **48-3832**
Frost heave in soils: concepts and engineering [1994, eng] **48-4480**
Frost heave simulation with segregation potential concept [1993, eng] **48-452**
Model for water transport and ice lensing in freezing soils [1993, eng] **48-2430**
Pore pressure measurements during clay silt freezing [1994, eng] **48-5110**
Konstantinov, I.P.
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia [1992, rus] **48-4788**
Gas pipeline Mastakh-Yakutsk and environment [1993, eng] **48-409**
Shoreline processes at the Viliuysk hydroelectric plant reservoir [1992, rus] **48-4782**
Konzelmann, T.
Numerical model of the West Greenland ice sheet [1994, eng] **48-3519**
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet [1994, eng] **48-3522**
Koo, K.K.
Thermal convection, morphological stability and the dendritic growth of crystals [1992, eng] **48-2894**
Koontz, H.S.
Electrically heated window for vehicle having at least three heatable zones [1993, eng] **48-4429**
Kopp, K.
Snow-plow [1992, eng] **48-1367**
Körber, C.
Interaction of particles and ice-water interfaces during bulk freezing [1992, eng] **48-3079**
Koren', V.I.
Automated short term forecasts of discharges and water levels for the Northern Dvina river system [1992, rus] **48-1946**
Korhonen, C.J.
Low-temperature admixtures for concrete [1994, eng] **48-3354**
Körner, C.
Alpine plant photosynthesis under elevated CO_2 [1994, eng] **48-5382**
Arctic and alpine biodiversity: patterns, causes and ecosystem consequences [1994, eng] **48-4163**
Korol, J.B.
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories [1992, eng] **48-3609**
Korolev, S.IU.
Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka) [1993, eng] **48-2610**
Koropachinskii, I.IU.
Plant resources of Siberia: their contemporary state and protection [1994, eng] **48-2479**
Korostelev, V.G.
Physico-mechanical model of self-excited processes by sea ice compacting [1993, eng] **48-4328**
Korotaev, V.N.
Specific nature of delta development in river estuaries in the arctic zone of Siberia [1992, rus] **48-4785**
Korsnes, R.
Approaches to find iceberg collision risks for fixed offshore platforms [1994, eng] **48-4264**
Helicopter ice field surveys [1992, eng] **48-2902**
Physical properties of the ice surface [1992, eng] **48-2901**
Korsström, K.
Ice flow behind an icebreaking vessel [1993, eng] **48-109**
Korsunov, V.M.
Soils of the taiga land of Siberia [1988, rus] **48-309**
Korzhenevskii, B.I.
Systematization of the concepts related to Quaternary deposits and to their gravitational slope processes [1992, rus] **48-3726**
Koseki, K.
Steel/concrete composite walls for offshore ice protection [1986, eng] **48-5312**
Koshi, M.
Antiskid device having rotatable crossbands [1991, eng] **48-1732**
Koske, R.E.
Room temperature isolations of low temperature microfungi [1992, eng] **48-3409**
Koskinen, P.
Azimuth thrusters in ice breaking technology [1993, eng] **48-110**
Koslowski, G.
Western Baltic sea ice season severity index, pt.1 [1994, eng] **48-3135**
Winter ice along the German coast between the Ems and Trave rivers—1987/88 [1987, ger] **48-1822**
Kosmatka, S.H.
Concrete masonry handbook for architects, engineers, builders [1991, eng] **48-2668**
Koss, W.J.
Freeze/frost data [1988, eng] **48-4399**
Koster, E.A.
Permafrost and climatic change: an annotated bibliography [1994, eng] **48-5434**
Kosterin, A.V.
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass [1993, eng] **48-2449**
Kostiukevich, V.V.
Regional geochronological study of Late Pleistocene permafrost [1993, eng] **48-3611**
Kostka, R.
Recent changes in glacier tongues in the Langtang Khola basin [1993, eng] **48-2776**
Kostomarova, V.V.
Dynamic instability of seasonally thawing silty soils [1994, eng] **48-4840**
Kostrov, P.I.
Snow retention plough [1992, eng] **48-4069**
Kotliakov, V.M.
World Atlas of Snow and Ice Resources compiled in the Soviet Union [1978, eng] **48-2984**
Kotlov, IU.V.
Analysis of Upper Kolyma Highland lichen flora [1993, rus] **48-4224**
Lichens collected at the bird colony in the northwestern part of Bolshevik Island (Severnaya Zemlya) [1993, rus] **48-5273**
Role of lichens in vegetation cover formation in the Upper Kolyma highlands [1993, rus] **48-5282**
Kotov, A.N.
Effect of global climate changes on the cryolithozone of Chukotka [1992, rus] **48-4776**
Post-technogenic variations in the cryolithozone in the southern lower Anadyr' basin [1992, rus] **48-4799**
Kotov, G.G.
Altitude variations in ice formation zones on glaciers in Central Tien Shan [1992, rus] **48-1395**
Kotsiurbenko, O.R.
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature [1993, eng] **48-1898**
Kottmeier, C.
Internal atmospheric gravity waves near the coast of Antarctica [1993, eng] **48-1116**
Radiation and eddy flux experiment 1993 *(REFLEX II)* [1994, eng] **48-3928**
Kouhia, I.
Low-energy residential housing case studies of energy efficient buildings [1994, eng] **48-3867**
Solar house IEA5. The Finnish IEA Task 13 demonstration house [1994, eng] **48-3870**
Kouno, M.
Detection of a straight metal tube by snow search radar [1993, eng] **48-1713**
Kourtidis, K.
Bromine-containing source gases during EASOE [1994, eng] **48-5445**
Koutaniemi, L.
Origin of pradolinas: a re-assessment—a reply to S. Kozarski [1991, eng] **48-3651**

Kouwen, N.
Modeling of snowmelt runoff in Ontario from SAR data [1993, eng] **48-2969**
Kovacs, A.
Compression tests on freshwater and sea ice samples [1993, eng] **48-93**
Dyeing of snow surfaces to observe snow structure [1993, eng] **48-3601**
Dyeing of snow surfaces to observe structure [1993, eng] **48-3001**
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude [1993, eng] **48-1004**
Measuring the compressive strength of ice [1993, eng] **48-3494**
Reassessment of the in-situ dielectric constant of polar firn [1993, eng] **48-3739**
Kovalick, W.M.
Observations on glaciers in the eastern Austrian Alps using satellite data [1994, eng] **48-4929**
Pasterze Glacier, Austria [1994, eng] **48-4928**
Kövér, Z.
Local estimation of power line icing in Hungary [1993, eng] **48-810**
Kovshov, V.A.
Method for forecasting ice conditions on the Northern Route [1993, eng] **48-5298**
Kowalczyk, D.
Detachable snow plow assembly [1990, eng] **48-2166**
Kowalik, Z.
Diurnal tides in the Arctic Ocean [1993, eng] **48-979**
Koyama, K.
Study on ice tank experimentation (part 2) [1993, eng] **48-174**
Kozhevnikov, IU.P.
Information content of paleobotanical material from eastern Taymyr [1993, rus] **48-1640**
Kozin, V.M.
Transient bend-gravitation waves excited by an impulse load [1994, eng] **48-3971**
Kozlov, A.N.
Mathematical modeling of the dynamics of permafrost thickness given a filtering layer [1992, rus] **48-1390**
Krahl, R.B.
Offshore structures for arctic oil and gas operations [1990, eng] **48-4685**
Kralj, B.
Numerical model for the prediction of surface frost damage to masonry walls [1991, eng] **48-4956**
Krams, M.
Runoff modelling in Latvia [1993, eng] **48-2889**
Krantz, W.B.
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave [1993, eng] **48-5205**
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment [1993, eng] **48-2970**
Model for ground with secondary frost heave [1993, eng] **48-5190**
Krasekha, E.N.
Soils of the taiga land of Siberia [1988, rus] **48-309**
Krasikov, N.N.
Physiochemical aspects of atmospheric electricity [1993, eng] **48-1823**
Krasiuk, V.S.
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States [1992, rus] **48-1954**
Krasnoborov, I.M.
Flora of Siberia. Volume 5: Salicaceae—Amaranthaceae [1992, rus] **48-3722**
Krasovskaia, G.I.
Acoustic inspection of thawing building foundations [1993, eng] **48-1916**
Krass, M.S.
Theoretical approach describing the thermal regime of snow- covered sea ice [1993, eng] **48-2831**
Kravtsova, O.N.
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete [1994, eng] **48-3956**
Krenke, A.N.
Approach to assessing changes in snow cover: an example for the former Soviet Union [1993, eng] **48-2924**
Krieger, A.
Measurement of negative ions in the arctic stratosphere [1994, eng] **48-5455**
Krilla, R.A.
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft [1992, eng] **48-4959**
Krisai, R.
Radiocarbon dating from an Alpine glacier forefield [1991, ger] **48-3658**
Krishfield, R.
Ice-Ocean Environmental Buoys deployment in 1991-92 [1993, eng] **48-3752**
Krishnasamy, S.G.
Pilot field project to evaluate icing models in Ontario, Canada [1993, eng] **48-823**
Kristensen, D.
Arctic research vessel design would expand science prospects [1993, eng] **48-2160**
Kristensen, D.H.
Ice-breaking performance of a new arctic research vessel [1994, eng] **48-4302**
Kristensen, M.
Activities within the Aurora Programme—Field season 1991/92 [1992, eng] **48-252**
Kritsuk, L.N.
Isotopic and chemical composition of ground ice in West Siberia [1993, eng] **48-523**
Kriuchkov, V.V.
Extreme anthropogenic loads and the northern ecosystem condition [1993, eng] **48-5388**
Krivonogova, N.F.
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia [1994, eng] **48-3406**
Krivonogova, N.P.
Permafrost development in river basins [1993, eng] **48-488**
Krivoshchekov, IU.V.
Ice block forming device, using heat carrier stream cutting [1992, eng] **48-5511**
Krivoshein, M.G.
Trolley for transporting snow removal equipment on runways [1992, eng] **48-5514**
Kriz, M.A.
Army MANPRINT program and its relationship to industry [1993, eng] **48-1168**
Krogstad, H.E.
Airborne synthetic aperture radar observations and simulations for waves in ice [1993, eng] **48-977**
Krómer, I.
Hungarian icing activity survey [1993, eng] **48-808**
Kropfli, R.A.
Cloud ice effects on downward atmospheric longwave radiation [1994, eng] **48-4474**
Doppler radar retrieval of vertical profiles of cirrus parameters [1994, eng] **48-4088**
Radar survey of cirrus cloud structure [1993, eng] **48-927**
Krouse, H.R.
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion [1993, eng] **48-5053**
Kruczynski, D.L.
Temperature compensation techniques and technologies—an overview [1991, eng] **48-3672**
Krug, J.A.
Evaluating oil, gas opportunities in western Siberia—reservoir description [1992, eng] **48-2447**
Kruger ...
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions [1994, eng] **48-5618**
Krüger, J.
Sorted polygons on an Icelandic highland [1994, eng] **48-4826**
Kruspe, G.
Boundary-layer observations over water and arctic sea-ice during on-ice flow [1994, eng] **48-4649**
Krutov, A.P.
Saturated soil compaction by blasts under winter conditions [1994, eng] **48-4486**
Krzyszkowski, D.
Sedimentology of Wartanian outwash near Belchatów, central Poland [1994, eng] **48-4988**
Kubo, H.
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus [1994, eng] **48-4919**
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids [1993, eng] **48-5068**
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements [1992, eng] **48-2115**
Trends abroad in snow and roads—the problem of studded tires [1987, jpn] **48-273**
Kubo, K.
Study on the evaluation methods for the strength of pavement materials [1993, eng] **48-5091**
Kubota, T.
Winter at Lake Biwa [1988, jpn] **48-564**
Kuc, M.
Paleoecology of glacial deposits, Ba in I. NWT [1993, eng] **48-1219**
Kucherenko, V.E.
Method of calculating annual runoff in terms of the seasonal total [1992, rus] **48-185**
Kucherov, I.B.
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland) [1993, rus] **48-1639**
Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient [1993, rus] **48-1629**
Supplements and emendations to the list of local flora in the vicinity of the Amguema Bridge (Chukotskiy Peninsula) [1993, rus] **48-1637**
Kuda, T.
Using heat from hot springs to melt snow [1988, jpn] **48-568**
Kudo, E.
Study on snowdrift countermeasures in the Shonai region [1987, jpn] **48-545**
Kudo, G.
Shrub ecology in an alpine snow patch [1993, eng] **48-2348**
Kudoiarov, L.I.
Prospective railroad construction under the Bering Strait [1994, eng] **48-4771**
Kudriashov, B.B.
KEMS-112 electromechanical ice core drill [1994, eng] **48-5340**
Kuehl, D.W.
Interactive calibration for the SSARR watershed model [1993, eng] **48-2954**
Kuehn, G.A.
Fracture toughness of freshwater ice crystals [1992, eng] **48-1552**
Laboratory simulation of first-year sea ice mechanical properties [1993, eng] **48-3922**
Kuemmel, D.A.
Accident analysis of ice control operations [1993, eng] **48-1764**
Kugelman, M.M.
Electrothermal timed de-icing apparatus for aircraft air foils [1989, eng] **48-5521**
Solid-state sequencing controller for timed de-icing [1988, eng] **48-5520**
Kuhle, M.
Influence of Tibetan glaciation on the global climate [1990, spa] **48-2682**
Pleistocene glaciation in the Tibetan Himalayas [1990, eng] **48-1817**
Kuhn, M.
Effects of long-term warming on alpine snow and ice [1989, eng] **48-2458**
Glacial meteorology at the University of Innsbruck [1990, ger] **48-3125**
Ion chromatography of alpine snow [1994, eng] **48-5146**
Methods of assessing the effects of climatic changes on snow and glacier hydrology [1993, eng] **48-2780**
Possible future contributions to sea level change from small glaciers [1993, eng] **48-1563**
Kuittinen, R.
Remote sensing for hydrology—progress and prospects [1992, eng] **48-4123**
Kuivinen, K.C.
Radiometric derivations of Greenland ice sheet surface variations [1993, eng] **48-1328**
Kujala, P.
Full-scale observations of ship performance in ice [1993, eng] **48-106**
Ship in compressive ice: preliminary model test results [1991, eng] **48-4891**
Ship in compressive ice; analysis of the ice failure process [1993, eng] **48-168**
Ship-ice contact and design ice loads [1994, eng] **48-4290**
Kujansuu, R.
Thermoluminescence dating of buried Finnish podsol [1993, eng] **48-3796**
Kukla, G.
Glacial start and global warming: what to watch [1993, eng] **48-1797**
Kulikov, IU.IU.
Investigation of stratospheric ozone in the Arctic with the aid of a ground-based microwave spectrum analyzer [1993, rus] **48-2496**
Kulish, K.M.
Designing oil and gas facilities for Russia [1994, eng] **48-3029**
Kullman, L.
Climate and environmental change at high northern latitudes [1994, eng] **48-4975**
Rapid natural decline of upper montane forests in the Swedish Scandes [1989, eng] **48-3429**
Kumagai, M.
Experimental study of snow removing channel system driven by water jets [1993, jpn] **48-3189**
Kumagai, S.
Study on frost heave tests [1988, jpn] **48-588**
Kumar, M.M.
Dynamic tensile strength of glass fiber reinforced pultruded composites [1994, eng] **48-3267**
Kumar, V.S.
Snowmelt runoff forecasting studies in Himalayan basins [1993, eng] **48-2775**
Kume, A.
Snow cover effect on evergreen shrub physiology [1993, eng] **48-4482**
Kumer, J.B.
CLAES south-looking aerosol observations for 1992 [1993, eng] **48-631**
Satellite observation of antarctic stratospheric chemistry [1993, eng] **48-623**
Kunik, W.G.
Wing/ground ice detection system for aircraft [1994, eng] **48-3109**
Kunimatsu, S.
Conditions of arch formation by ice floes at bridge piers [1994, eng] **48-5625**
Experimental study on the control of ice movement with a new design of ice boom [1993, eng] **48-4352**

Experimental study on the overtopping of breakwaters by ice floes and waves [1993, eng] 48-156
Study on drift ice control utilizing arch formation of ice floes [1993, eng] 48-4353

Kunitskii, V.V.
On the study of nival deposits in Yakutia [1993, eng] 48-524

Kuraĭov, V.K.
Particulars of weather and ice conditions in the Arctic in 1991 [1992, eng] 48-731

Kurashima, K.
Development of operations management systems for snow removal equipment [1988, jpn] 48-556

Kurbjeweit, F.
Life cycle of a calanoid copepod in the Weddell Sea [1993, eng] 48-594

Kurfurst, P.J.
Siberian permafrost surveys [1993, eng] 48-415

Kurgin, F.F.
Multipurpose underwater transport ship outfitted for the Arctic [1992, rus] 48-748

Kuril'chik, A.F.
Complex technology for preparation of perennially frozen placers to dredging [1993, eng] 48-525

Kurita, S.
Future aspects of cities in snowy region [1993, jpn] 48-1977

Kuriyama, H.
Current status and future developments of snow and ice technology [1987, jpn] 48-271
Development of technology for hydraulic transport of snow [1987, jpn] 48-281
Method of evaluating the cost of snow removal [1993, jpn] 48-3186

Kuroda, R.
Hexagonal ice molecules intercalated between molecular metals [1993, eng] 48-1612

Kurt, L.V.
Extinction and scattering of millimeter waves by cloud and precipitation particles [1992, eng] 48-1022

Kurtener, D.A.
Optimal thermal melioration of soil in climatic conditions of the North [1992, rus] 48-4791

Kurvonen, L.
Effect of land-cover type and season in microwave remote sensing of snow [1993, eng] 48-1707

Kurz, M.
Influence of the Alps on a Munich hailstorm [1986, ger] 48-617

Kusano, K.
Effects of fins on solution solidification [1994, eng] 48-4814

Kusumoto, S.
Effects of various factors on rime icing; water vapor content [1993, jpn] 48-3169

Kutasov, I.M.
Arctic well drilling and completion problems [1993, eng] 48-416
Equation calculates thawing time around wells completed in permafrost [1993, eng] 48-3230

Kutin, D.G.
Oceanographic survey near a glacier [1992, eng] 48-2910

Kutzbach, J.E.
Conceptual basis for understanding late-Quaternary climates [1993, eng] 48-2975
Model description, external forcing, and surface boundary conditions [1993, eng] 48-2976
Simulated climatic changes: results of the COHMAP climate-model experiments [1993, eng] 48-2977

Kuusisto, E.
Finland lake ice observations—19th and 20th century [1993, eng] 48-1793

Kuvaev, V.B.
Altitudinal distribution of vascular plants in the mountains of the Kronotskiy reservation [1993, rus] 48-4225

Kuwabara, R.
Faunistic degradation of macrobenthos at freezing time [1993, eng] 48-1028

Kuwahara, T.
Recent trends in snow melting facilities in the Hokuriku Region [1989, jpn] 48-711

Kuwahara, Y.
Study on snow attaching to the TACAN antenna [1994, eng] 48-4215

Kuzina, G.V.
Effect of abscisic acid content on apricot frost resistance [1993, eng] 48-3194

Kuz'kin, V.M.
Sound wave refraction in the frontal zone of the Barents Sea [1993, eng] 48-4479

Kuz'min, V.A.
Landscape ecological features of the subarctic mountain zone of Transbaikalia [1993, eng] 48-3801

Kuz'min, V.R.
Types of limiting conditions and factors which govern the cold resistance of supporting structures [1990, rus] 48-57

Kuznetsov, G.I.
Hydrotechnical dam structure with insulated water duct in frozen ground [1992, eng] 48-5530

Kuznetsov, IU.V.
Dumping of radioactive wastes into the sea environment: scientific and practical aspects [1993, eng] 48-4513

Kuznetsov, L.L.
Production of microphytobenthos in the coastal area of the Barents Sea [1991, rus] 48-2531

Kuznetsova, L.V.
Floristic findings in the Aldan highlands and Tokinsky Stanovik range [1993, rus] 48-5285

Kvambekk, Å.S.
Application of the ice model RICE in a rapid river [1994, eng] 48-5541
Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet [1992, eng] 48-2898

Kvamsdal, T.
Iceberg/structure interaction—effects of ice temperature on the impact force [1994, eng] 48-5558

Kvenvolden, K.A.
Beaufort Sea continental shelf as a seasonal source of atmospheric methane [1993, eng] 48-2576
Gas hydrates—geological perspective and global change [1993, eng] 48-1509
Map of permafrost depth, North Slope, AK [1989, eng] 48-2505

Kverndal, A.I.
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway [1993, eng] 48-2883

Kwan, G.H.H.
Corrosion protection for ballast tanks of arctic offshore structures [1990, eng] 48-3746

Kwan, H.W.
Detection of oil under ice by ultrasound using multiple element phased arrays [1986, eng] 48-4176

Kwok, K.C.S.
Snowdrifting simulation around a Davis Station workshop [1993, eng] 48-2911

Kwok, R.
Backscatter characteristics of the winter ice cover in the Beaufort Sea [1994, eng] 48-4055
Creep effects on a laterally loaded pile [1993, eng] 48-377
Geophysical Processor System: automated analysis of ERS-1 SAR imagery [1994, eng] 48-3451
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery [1993, eng] 48-1670
Model for remote sensing of anisotropic layers [1993, eng] 48-2408
Polarization signatures of frozen and thawed forests of varying environmental state [1994, eng] 48-4833
Sea ice lead dynamics from ERS-1 SAR [1994, eng] 48-3448

Kwong, Y.T.J.
Northward migration of permafrost along the Mackenzie Highway and climatic warming [1994, eng] 48-5306

Kyro, E.
Polar stratospheric cloud spectrometry in the Arctic [1994, eng] 48-5469

Kyrö, E.
Stratospheric ozone variations in the European Arctic [1994, eng] 48-5442

Labeyrie, L.
North Atlantic sea surface salinity, ice melting and abrupt climatic changes [1993, eng] 48-4208

Lachlan-Cope, T.A.
Comparison of arctic and antarctic mesoscale vortices [1993, eng] 48-199
High latitude atmospheric circulation observed with the ERS-1 [1994, eng] 48-3476
Mesoscale vortex over Halley Station, Antarctica [1993, eng] 48-1834
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images [1994, eng] 48-3455

Lackinger, B.
Avalanche handbook [1988, ger] 48-2127

Lackmann, G.M.
Snowstorms over the Puget Sound lowlands [1993, eng] 48-2359

Lacombe, J.
Impact of different backgrounds on thermal infrared IDS performance [1993, eng] 48-1094

Ladanyi, B.
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec) [1994, eng] 48-3393

Laflamme, J.
Comparison of selected models for estimating cable icing [1993, eng] 48-816
Field data on transmission line icing collected at the Mount Valin test site [1994, eng] 48-3020
Spatial variation of extreme values in the case of freezing rain icing [1993, eng] 48-812
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor [1993, eng] 48-826

Lafleur, P.M.
Water loss from the floor of a subarctic forest [1994, eng] 48-4374

Laforte, J.L.
Aircraft ground deicing and anti-icing fluids [1994, eng] 48-3111
Ice accretion on conductors energized by AC or DC [1994, eng] 48-4263
Ice accretion on conductors energized by AC or DC [1993, eng] 48-4341
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids [1994, eng] 48-3367
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor [1993, eng] 48-826

Laframboise, J.E.
Empirical review of the design and performance of icebreakers [1989, eng] 48-3747

Lafrance, M.
Development of a steel grade for arctic applications [1994, eng] 48-3981

Låg, J.
Humus accumulation and soil formation in Svalbard [1993, eng] 48-2303

Lagacé, F.
Heat recovery ventilator operating under frost conditions [1993, eng] 48-870

Lagerqvist, O.
Welding of quenched and tempered steel at low temperatures [1994, eng] 48-3982

Lagnier, A.
Tread for pneumatic tire intended for winter driving [1991, eng] 48-1518

Laine, J.
Advanced HVAC-systems in energy-efficient experimental buildings [1994, eng] 48-3869

Laine, K.
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites [1990, eng] 48-83

Laird, S.K.
Sulfur dioxide reactions on ice surfaces [1993, eng] 48-132
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow [1993, eng] 48-3906

Laitera, J.
Icy water suction dredger two-piece overflow pipe [1984, eng] 48-4417

Laj, C.
Geomagnetic chronology for antarctic ice accumulation [1994, eng] 48-4692

Laj, P.
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions [1993, fre] 48-4485

Lake County modifies deicing spreaders
Lake County modifies deicing spreaders [1994, eng] 48-4248

Lal, M.
Molecular model of ice crystal growth inhibition [1993, eng] 48-5373

Lamb, D.
Cloud ice crystal growth by vapor deposition [1994, eng] 48-4475
Investigation of ice in supercooled clouds, Pt.1 [1994, eng] 48-2512
Investigation of ice in supercooled clouds, pt.2 [1994, eng] 48-2556

Lambeck, K.
Glacial rebound and sea level change [1993, eng] 48-742

Lambert, T.E.
Use of vorticity parameters to forecast winter precipitation [1993, eng] 48-313

Lambrinos, G.
Ice sample heat transfer in a wind tunnel [1994, fre] 48-2574

Lampo, R.G.
Behavior of fiber-reinforced plastics as construction materials in extreme environments [1993, eng] 48-4362

Lan, Y.C.
Investigation on application of grey cognate analysis for snowmelt runoff forecast [1993, chi] 48-4577
Snow cover effect on summer temperature and precipitation [1993, eng] 48-1718

Lancelot, C.
Microbial network of the marginal ice zone in the Weddell Sea [1993, eng] 48-2136
Phytoplankton ice-edge blooms in the northwestern Weddell Sea [1993, eng] 48-596

Landenberger, B.D.
Biodegradation of aircraft deicing fluids in soil at low temperatures [1993, eng] 48-3265

Landers, D.H.
Arctic Contaminants Research Program: research plan [1992, eng] 48-4898

Landhäusser, S.M.
Post fire tree establishment at the arctic treeline [1993, eng] 48-2764

Landvik, J.Y.
Moraine formation at a Svalbard site [1993, eng] 48-633
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway [1993, eng] 48-3798

Lang, H.
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle [1990, eng] 48-1567
Long-term records of snow cover water equivalent in the Swiss Alps. I. Analysis [1994, eng] 48-4709
Point modeling of snow cover water equivalent [1990, eng] 48-1583

Langan, B.W.
Use of fly ash aggregates to enhance concrete freeze-thaw durability [1993, eng] **48-956**

Lange, M.A.
Arctic Monitoring and Assessment Program (AMAP) [1993, eng] **48-3323**
Forging new partnerships in the north: the Northern Forum and the Barents Euro- Arctic Council [1993, eng] **48-3321**
Snow and ice distribution in the Weddell Sea [1994, eng] **48-4168**
Technological, environmental and legal issues in northern development [1994, eng] **48-3995**

Langel, K.L.
Impact of snow properties on the performance of rotary snowblowers [1993, eng] **48-3286**

Langenegger, O.
Chemical composition of precipitation in a prealpine area of eastern Switzerland [1990, eng] **48-1593**

Langhals, T.J.
Ice shape and performance for a multi-element airfoil [1991, eng] **48-4859**

Langhorne, P.J.
Preliminary measurements of acoustic emission in young artificial sea ice [1993, eng] **48-4335**

Langlois, R.
Rheological properties of regular and polymer modified asphalts [1993, eng] **48-5090**

Langseth, M.
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo* [1994, eng] **48-3269**

Langway, C.C., Jr.
Air clathrate hydrates in antarctic ice [1993, eng] **48-3943**
Background levels of formate and other ions in ice cores from inland Greenland [1993, eng] **48-4654**
Crystal growth rates in polar firn [1993, eng] **48-2854**
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica [1994, eng] **48-2915**
Trace elements in basal ice at Dye-3 [1993, eng] **48-3905**
Transformation process observations of polar firn to ice [1993, eng] **48-2852**

Lansford, H.
Aircraft icing [1990, eng] **48-1921**

Lansley, R.M.
Surface sources on floating ice: the flexural ice wave [1984, eng] **48-3920**

Lantratov, IU.
Maintaining a sluice during winter [1992, rus] **48-3795**

Lanzhou Institute of Glaciology and Geocryology
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990) [1991, eng] **48-1424**
State Key Laboratory of Frozen Soil Engineering, 1993 [1993, chi] **48-2130**

LaPotin, P.J.
Object-oriented methods for hydrologic modeling and remote sensing [1993, eng] **48-683**

Laprise, J.P.R.
Mathematical model of snowstorm microphysics [1993, eng] **48-2346**

Lapsa, V.A.
Ecological and economical thermo-blocks for external walls [1994, eng] **48-3877**

Lardiere, B.G.
Expulsive ice detector for aircraft or watercraft rigging [1993, eng] **48-4416**

Larionov, V.P.
Cracks in structural members and deformed rigid body mechanics [1994, eng] **48-3973**
Mining machines serviceability under cold climate conditions [1994, eng] **48-3985**
Problems in welding of structures used in polar regions of Russia [1994, eng] **48-3978**
Problems of power and transport industries in the Asian polar regions of Russia [1994, eng] **48-3949**
Results of performance tests on the BelAZ-75191 automobile in cold climate conditions [1990, rus] **48-58**

Larko, D.E.
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991 [1993, eng] **48-190**
Satellite spectrometry of global ozone variations [1994, eng] **48-3146**

Larmi, M.
Transient response model of low-speed diesel engine in ice- breaking cargo vessels [1993, eng] **48-3647**

Larntz, K.
Comparison of the predictive ability of ice cream freezing point depression equations [1993, eng] **48-3839**

Larochelle, V.
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions [1993, eng] **48-4819**

Larose, G.
Field study of two road sections during a freeze-thaw cycle [1992, eng] **48-2113**

Larsen, A.
Ice encasement as a component of winter kill in herbage plants [1993, eng] **48-1259**

Larsen, B.
Cenozoic glacial record of the Prydz Bay continental shelf [1991, eng] **48-3630**
Glacial history of Antarctica: results from Leg 119 [1991, eng] **48-3632**

Larsen, H.C.
Seven million years of glaciation in Greenland [1994, eng] **48-3942**

Larsen, J.
Physical model studies of measures to mitigate ice jamming in the upper Niagara River [1994, eng] **48-5609**
Physical model to study ice jamming processes in the upper Niagara River [1994, eng] **48-5608**

Larsen, N.
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992 [1994, eng] **48-5466**
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds [1994, eng] **48-4441**

Larson, K.
Compound to increase the frost-resistance of hardened concrete [1991, eng] **48-2252**

Lashchinskii, N.N.
Anthropogenic transformation of the vegetation cover of Western Siberia [1992, rus] **48-4151**

Lateltin, E.
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic [1994, eng] **48-5490**

Latermser, M.
Firn temperature measurements in Greenland [1994, eng] **48-3263**

Latham, J.
Influence of glaciation on an effective-radius parametrization [1993, eng] **48-2056**

Latini, A.
Snowfall variations in the Italian Alps [1986, ita] **48-616**

Lattka, A.L.
Monitoring vibrations in a nuclear icebreaker [1990, ger] **48-3929**

Laturnus, F.
Halogenated hydrocarbons in polar macroalgae [1993, ger] **48-2243**

Lau, M.
Model ice forces on a multi-faceted cone [1993, eng] **48-144**

Lau, O.H.
Fracture behavior of composites at room and cryogenic temperature [1993, eng] **48-3539**

Lauber, W.R.
HF atmospheric noise levels in the Canadian Arctic [1994, eng] **48-5386**

Laubscher, R.K.
Phytoplankton production and biomass in South Atlantic Ocean frontal zones [1993, eng] **48-918**

Laughlin, G.P.
Intuitive approach to analysing small point-source spatial data sets [1993, eng] **48-62**

Laukia, K.
Propeller-ice impact process [1993, eng] **48-123**

Laumann, T.
Helicopter-borne radio-echo sounding of Svartisen, Norway [1993, eng] **48-1295**
Sensitivity to climate change of the mass balance of glaciers in southern Norway [1993, eng] **48-3592**

Launiainen, J.
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy [1993, eng] **48-225**

Laurence, J.A.
Physiological response to controlled freezing of attached red spruce branches [1993, eng] **48-2452**
Red spruce bud mortality at Whiteface Mountain, New York [1993, eng] **48-1217**

Lauriol, B.
Karst morphology in a permafrost environment [1993, eng] **48-385**
Postglacial emergence of Ungava Peninsula, Quebec [1993, eng] **48-2205**

Laursen, A.E.
Snow algae and other microbes in several alpine areas in New England [1993, eng] **48-2941**

Lautenberger, C.
Oil and hazardous substance contingency plan for Alaska [1993, eng] **48-3717**

Lautenschlager, M.
Atmospheric response to a hypothetical Tibetan ice sheet [1991, eng] **48-5320**

Lavoie, C.
Stem analysis of a long-lived black spruce clone at treeline [1994, eng] **48-3508**

Lavorando, M.J.
Aircraft deicer system [1993, eng] **48-1940**

Law, K.S.
Modeling CH_4 and CO budgets in the troposphere [1993, eng] **48-2677**
Modeling ozone and nitrogen budgets in the troposphere [1993, eng] **48-2676**

Lawler, D.M.
Needle ice processes on a river bank [1993, eng] **48-136**

Lawrysyn, M.A.
Effects of frost on wing aerodynamics and take-off performance [1991, eng] **48-3687**

Lawson, D.E.
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins [1993, eng] **48-2538**
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska [1993, eng] **48-3491**
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska [1993, eng] **48-2064**

Lawson, G.S.
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic [1994, eng] **48-4278**

Lawson, W.
Character, structure and origin of the basal ice layer of a surge-type glacier [1994, eng] **48-5169**

Laxon, S.
Arctic Ocean gravity field derived from ERS-1 satellite altimetry [1994, eng] **48-5107**

Laxon, S.W.
Identification of subglacial lakes using ERS-1 radar altimeter [1993, eng] **48-3589**
Sea ice altimeter processing scheme at the EODC [1994, eng] **48-4036**

Layton, J.B.
Winter-associated changes in dry soil aggregation [1993, eng] **48-3534**
Winter-associated changes in dry-soil aggregation as influenced by management [1993, eng] **48-3240**

Lazare, M.
Canadian Land Surface Scheme for GCMS, pt.2 [1993, eng] **48-1380**

Lazo, J.
Stress-optic effect in ice [1994, eng] **48-4448**

Le Bras, G.
Reactions of BrO radication relevant to polar chemistry [1993, eng] **48-3062**

Le Cornec, A.
ERS-1 microwave radiometer [1994, eng] **48-4035**

Learmonth, R.P.
Cryoprotection of yeast by alcohols during rapid freezing [1994, eng] **48-5055**

Lease, J.C.
Mountain snowfall enhancement by cloud seeding in Colorado [1993, eng] **48-1470**

Leatham, J.
Mobile fog dispersion with liquid carbon dioxide, Final report [1993, eng] **48-3065**

Leathers, D.J.
Associations between snow cover extent and surface air temperature over North America [1993, eng] **48-2944**
Snowfall in the lee of Lakes Erie and Ontario [1993, eng] **48-2960**

Leavesley, G.H.
Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado [1993, eng] **48-2962**

Lebedenko, IU.P.
Heat and mass transfer in frozen saline kaolin [1992, chi] **48-2009**
Heat-mass transfer and deformation in frozen saline kaolin [1992, chi] **48-1408**
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks [1993, eng] **48-1429**
Peculiarities of gas hydrate formation in sands [1993, eng] **48-379**
Primary study on interface conditions of ice-saturated clay [1992, chi] **48-1409**
Water migration and ice formation in frozen rocks [1993, eng] **48-1428**

Lebiedzinski, K.
Prediction of bow spray frequency for a naval combatant [1993, eng] **48-169**

Lecce, S.A.
Hydrology of Conness Glacier, Sierra Nevada [1993, eng] **48-2384**

Leck, C.
Spitsbergen atmospheric aerosols related to arctic air pollution [1994, eng] **48-2916**

Leclaire, P.
Model of elastic wave propagation in frozen media—comparison with experiment [1993, eng] **48-417**
Ultrasonic measurements in frozen soils [1993, eng] **48-465**

Lecompte, M.
Erosion and transport processes on badlands slopes [1993, eng] **48-1849**

Lecomte, P.
Identification of sea ice zones by satellite scatterometer [1994, eng] **48-3483**
Recognition of sea ice zones using ERS-1 scatterometer data [1993, eng] **48-1702**

Leconte, C.
Breaking capacity of SF6 circuit-breakers at low temperatures [1993, eng] **48-1828**

Leconte, R.
Modelling the interactions between microwaves and a snow/soil system [1993, eng] **48-1806**
Ledley, T.S.
Global warming and the growth of ice sheets [1994, eng] **48-3255**
Sea ice: a factor in influencing climate on short and long time scales [1993, eng] **48-4203**
LeDrew, E.F.
Shortwave albedo of snow cover over sea ice [1993, eng] **48-1802**
Snow watch '92 [1993, eng] **48-1787**
Ledroit, M.
Seasat observations of the antarctic ice sheet [1993, eng] **48-2401**
Lee, F.T.
Landslide hazards in Vermont [1993, eng] **48-3283**
Lee, H.C.
Feasibility study for an ice-capable oceanographic ship [1993, eng] **48-4253**
Lee, J.S.
Sea ice scenes from polarimetric SAR data [1992, eng] **48-3241**
Lee, L.H.
Statistical evaluation of antarctic glacier radar altimetry [1993, eng] **48-1303**
Lee, P.
Anomalous-scattering region on Triton [1992, eng] **48-990**
Lee, S.H.
Nonlinear analysis of incompressible soil foundation for gravity arctic structures [1993, eng] **48-4361**
Lee, S.P.
Molecular biology of plant cold hardiness development [1993, eng] **48-1250**
Lee, T.F.
Microwave cloud water parameter applied to aircraft icing [1994, eng] **48-5436**
Sea ice-edge enhancement using polar-orbiting environmental satellite data [1993, eng] **48-314**
Lee, T.J.
Ab initio characterization of ClOOH: implications for atmospheric chemistry [1993, eng] **48-2316**
Lee, W.H.
Study of the small ice cap instability in the presence of fluctuations [1994, eng] **48-3551**
Lee, W.J.
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects [1994, eng] **48-3544**
Leemann, A.
Varve formation in an alpine proglacial lake [1994, eng] **48-4942**
Leemans, R.
Global vegetation model based on the climatological approach of Budyko [1993, eng] **48-1280**
Leeson, A.
Optimizing bioventing in shallow vadose zones and cold climates [1993, eng] **48-347**
Lefauconnier, B.
Glacier mass balance estimated by radioactive layers [1994, eng] **48-5173**
Surface state of subpolar glaciers from satellite data [1991, fre] **48-3713**
Validation of SAR data from ERS-1 on Spitsbergen [1994, eng] **48-3443**
Lefer, B.L.
Enhancement of acidic gases in biomass burning impacted air masses over Canada [1994, eng] **48-4624**
Lefevre, R.J.
Adverse weather test site selection study [1992, eng] **48-4749**
Legan, M.A.
Cracks in structural members and deformed rigid body mechanics [1994, eng] **48-3973**
Legates, D.R.
Need for removing biases from rain and snowgage measurements [1993, eng] **48-1804**
Legendre, L.
Canadian SARES project within the framework of the Canada- Japan Complementarity Study [1993, eng] **48-1072**
International Arctic Polynya Program [1990, eng] **48-4666**
Leggett, D.C.
Comments on paper by Bustamante et al [1994, eng] **48-5417**
Mathematical modeling of solvent extraction [1993, eng] **48-1098**
Modeling organic contaminant partitioning in groundwater [1994, eng] **48-4953**
Legin, V.K.
Dumping of radioactive wastes into the sea environment: scientific and practical aspects [1993, eng] **48-4513**
Legrand, M.
Origins and variations of fluoride in Greenland precipitation [1994, eng] **48-4598**
Sulfate and MSA in the air and snow on the Greenland Ice Sheet [1994, eng] **48-4599**
Legrand, M.R.
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] **48-192**
Ice core analysis in arctic and antarctic regions [1993, eng] **48-3056**
Lehman, S.
Ice sheets, wayward winds and sea change [1993, eng] **48-333**
Lehman, S.J.
Transport of freshwater into the deep ocean by the conveyor [1993, eng] **48-4189**
Lehmann, R.
Permafrost influence on push moraine formation [1993, eng] **48-418**
Lehmkuhl, F.
Glacier erosional landforms in Chinese mountain terrain [1991, ger] **48-3652**
On the Pleistocene glaciation of eastern China and northwestern Tibet [1993, ger] **48-960**
Lehmus, E.
Decay of flooded ice on timber storage areas [1992, fin] **48-2077**
Lehner, S.
ERS-1 SAR observations of swell travelling into the ice [1994, eng] **48-3457**
Lehtinen, P.
Performance of ice-navigating ships in the northern Baltic in winter 1993 [1993, eng] **48-2078**
Lei, W.S.
Stress theory of low-temperature steel brittleness [1994, eng] **48-5158**
Leibman, M.O.
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula [1993, eng] **48-2299**
Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia [1994, eng] **48-3408**
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula [1993, eng] **48-419**
Leibundgut, C.
Simulation of snowpack and discharge in an alpine karst basin [1993, eng] **48-2789**
Leith, I.D.
Influence of acidic mist on spruce frost hardiness, pt.1 [1993, eng] **48-4280**
Influence of acidic mist on spruce frost hardiness, pt.2 [1993, eng] **48-4281**
Leiviskä, V.
Fast preparation and more accurate utilization of the peat production area [1991, fin] **48-3678**
Leland, T.
Winter maintenance of national roads in Norway [1993, eng] **48-1190**
Lelikov, V.P.
Dumping formation method using alternating layers of rock and ice [1992, eng] **48-5534**
Leliwa-Kopystyński, J.
Ice/rock porous mixtures: compaction experiments and interpretation [1993, eng] **48-3591**
LeMasurier, W.E.
Geology of Mount Murphy volcano [1994, eng] **48-3299**
Lemdahl, G.
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway [1993, eng] **48-3798**
Lemieux, G.E.
Connectivity of snow particles [1993, eng] **48-2819**
Leming, M.L.
High performance concrete for highway applications: field results [1993, eng] **48-2658**
Lemke, H.
Engines in passenger cars under subzero conditions [1994, eng] **48-3106**
Lemke, P.
Global change and arctic sea ice [1993, eng] **48-183**
Ice processes [1991, eng] **48-4867**
Modelling sea ice-mixed layer interaction [1993, eng] **48-3729**
Lenhart, K.G.
Study on SAR land applications for snow and glacier monitoring. Final report [1988, eng] **48-3332**
Leonard, L.E.
Radioluminescent lights score high in VFR night air taxi tests [1987, eng] **48-4134**
Leonovich, S.N.
Structure and frost resistance of centrifuged concrete with admixtures [1989, rus] **48-307**
Leont'eva, E.
Arctic cloud optical thickness from ground measurements [1994, eng] **48-4015**
Leoshkevich, E.A.
Mixture for construction of car-road base [1992, eng] **48-4428**
LePage, P.
Pine growth on a vegetation-controlled frost-prone site [1994, eng] **48-4809**
Lepage, S.
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay [1989, fre] **48-3432**
Leppäranta, M.
Experience from using ERS-1 SAR for Baltic Sea ice mapping [1993, eng] **48-1056**
Mathematical modeling of dynamic-thermodynamic behaviour of sea ice [1990, eng] **48-4687**
Observations of sea ice ridging in the Weddell Sea [1993, eng] **48-1057**
Review of analytical models of sea-ice growth [1993, eng] **48-2355**
Lepš, J.
Larch variation along the treeline in North Korean forests [1994, eng] **48-4376**
Lesack, L.
Relocation of major ions in snow along the tundra-taiga ecotone [1993, eng] **48-1155**
LeSage, B.C.
Development of a self-powered heater for low temperature operation [1994, eng] **48-3098**
Leshchiner, V.B.
Development of an instrument for cutting frozen ground [1991, rus] **48-651**
Leshkevich, G.
Great Lakes SAR ice research applications demonstration [1994, eng] **48-3473**
Lesser, M.P.
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton [1992, eng] **48-5097**
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area [1994, eng] **48-4386**
Letréguilly, A.
Modelling of the Fennoscandian ice sheet [1993, eng] **48-4179**
Leu, M.T.
Morphology of nitric acid and water ice films [1993, eng] **48-603**
Simulation of heterogeneous reactions within polar stratospheric clouds [1993, eng] **48-2463**
Surface areas and porosities of ices used to simulate stratospheric clouds [1993, eng] **48-1247**
Uptake of HCl in water ice and nitric acid ice films [1993, eng] **48-966**
Leung, H.
Fractal characterization of radar echoes from icebergs [1993, eng] **48-933**
Levander, A.
Seismic images of the Brooks Range thrust belt [1994, eng] **48-5129**
Leventer, A.
Sea ice and open-water plankton carbon isotopic composition [1992, eng] **48-3767**
Lever, J.H.
Frazil ice concentration meter [1992, eng] **48-1547**
Post-stable fluidelastic behavior of a tube bundle [1993, eng] **48-294**
Snowdrift modeling in the CRREL wind tunnel [1993, eng] **48-2938**
Technical assessment of maglev system concepts [1993, eng] **48-295**
Levert, D.
Baling facility for municipal solid waste for the city of Yellowknife [1994, eng] **48-3357**
Lévesque, D.
Forest floor frost dynamics during spring snowmelt in a boreal forested basin [1994, eng] **48-4449**
Levin, A.I.
Approximate evaluation of the stress state of unrated sections of a main gas pipeline [1990, rus] **48-52**
Automation of field tests of pipes and high pressure vessels and prospects for its development [1990, rus] **48-53**
Levin, B.M.
Technical-economic indicators and development perspectives for the nuclear fleet [1992, rus] **48-1271**
Levy, H., II
Impact of global NOx sources on the northern latitudes [1993, eng] **48-3050**
Lew, H.S.
Snow chain having a network of diamon. shaped openings [1990 eng] **48-2190**
Lewis, A.G.
Fiord suspended sediment composition related to glacial runoff [1992, eng] **48-2006**
Lewis, B.
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC) [1993, eng] **48-327**
Lewis, B.E.
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment [1993, eng] **48-2970**
Lewis, G.C.
Model for ground with secondary frost heave [1993, eng] **48-5190**
Lewis, J.G.
Cryoprotection of yeast by alcohols during rapid freezing [1994, eng] **48-5055**
Lewis, J.K.
Relating arctic ambient noise to thermally induced fracturing of the ice pack [1994, eng] **48-4065**
Lewis, T.
Air-deliverable, ice-penetrating sonobuoy [1991, eng] **48-3664**

Lewkowicz, A.G.
Active layer detachment slides, Ellesmere I. [1993, eng] 48-2207
Active layer landslides on Ellesmere I. [1993, eng] 48-392
Adaption to permafrost in the Canadian north: present and future [1992, eng] 48-2033

Lhénaff, R.
Erosion and transport processes on badlands slopes [1993, eng] 48-1849

Li, A.G.
Solar radiation and frost penetration under canal banks [1993, eng] 48-5219
Study and development of the techniques against frost damage of hydraulic structures [1993, eng] 48-5254
Study of forecast of frost heave on canals [1993, eng] 48-420

Li, A.N.
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions [1994, eng] 48-3452

Li, B.
Best compaction dry density study of sulphate salty soil [1993, chi] 48-1449
Compressing properties and salt heaving mechanism study of sulphate salty soil [1993, eng] 48-5204

Li, D.Q.
Similarity analysis of modeling test of frozen soil under load [1993, eng] 48-5220
Similitude analysis of modeling test of frozen soil under load [1993, chi] 48-1448
Similitude modeling of frozen soil excluding overburden [1992, chi] 48-1419
Simulation of soil freeze-thaw mechanics [1993, eng] 48-509

Li, D.Z.
Frost heave in retaining walls in seasonally frozen ground [1993, eng] 48-460

Li, F.C.
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea [1993, eng] 48-1062

Li, G.
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan [1992, chi] 48-2016
Experimental study of the effect of impurities on ice creep at -1 C [1993, eng] 48-400
Experimental study on influence of impurity on ice creep at - 1 degree centigrade [1993, chi] 48-1442

Li, G.F.
Impact of ice on hydraulic structures and hydropower stations and its prevention [1994, eng] 48-5553

Li, G.P.
Composite model of multiple actions for forming patterned ground [1993, chi] 48-4396
Composite model of multiple actions for forming patterned ground [1993, eng] 48-5221

Li, H.
Study of forecast of frost heave on canals [1993, eng] 48-420

Li, H.S.
Action of ice push force against the dam and slope protection in reservoirs [1994, eng] 48-5548

Li, J.C.
Diffuse neutron-scattering study of deuterated ice Ih [1994, eng] 48-5154
Evidence for two kinds of hydrogen bond in ice [1993, eng] 48-543
Existence of two H-bonds of different strengths in ice and the possible implications [1994, eng] 48-5383

Li, J.J.
Ice wedge significance during Qinghai-Tibetan Plateau glaciation [1994, eng] 48-4260

Li, K.
Consolidation of deep layer frozen soils in triaxial tests [1993, eng] 48-5222
Depth consolidation of frozen soils in triaxial tests [1993, chi] 48-4497

Li, L.
Dynamic loads on transmission line structures due to galloping conductors [1994, eng] 48-3809

Li, P.H.
Advances in plant cold hardiness [1993, eng] 48-1249
Cell wall and freezing injury: a mini-review [1993, eng] 48-1256

Li, P.J.
First revisal of SMMR world map over western China [1992, chi] 48-2017
Overview of large scale effects of seasonal snow cover [1993, chi] 48-4593
Significant breakthrough in land-based record of ice age climates [1993, chi] 48-4583

Li, Q.Z.
Further discussion on the thermal hysteresis of the ice growth inhibitor [1994, eng] 48-5118

Li, R.X.
Ice crystal formation by supersonic flow [1993, eng] 48-2099

Li, S.D.
Permafrost and periglacial landforms in Kekexili area of Qinghai Province [1993, chi] 48-4394
Permafrost and periglacial landforms in Kekexili area of Qinghai Province [1993, eng] 48-5223
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province [1992, chi] 48-2011
Regional features of permafrost in Mahan Mountain and their relationship to the environment [1993, chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment [1993, eng] 48-5224

Li, S.J.
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake [1993, eng] 48-2134
Lakes in the western Kunlun Mountain area [1993, chi] 48-2095
Permafrost and periglacial landforms in Kekexili area of Qinghai Province [1993, chi] 48-4394
Permafrost and periglacial landforms in Kekexili area of Qinghai Province [1993, eng] 48-5223
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province [1992, chi] 48-2011

Li, S.M.
Aerosol silicon and associated elements in the arctic high and mid-troposphere [1993, eng] 48-3903
Biogenic sulfur aerosol in the Arctic troposphere: 1. Contributions to total sulfate [1993, eng] 48-3642
Biogenic sulfur aerosol in the Arctic troposphere: 2. Trends and seasonal variations [1993, eng] 48-3643
Particulate and snow nitrite in the spring arctic troposphere [1993, eng] 48-3909
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere [1993, eng] 48-3914

Li, S.X.
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes [1992, chi] 48-1422
Freeze prevention of a canal for conveying water in winter [1993, chi] 48-1452

Li, X.S.
Depth consolidation of frozen soils in triaxial tests [1993, chi] 48-4497

Li, Y.
Preliminary study on freezing point in soil [1993, chi] 48-4496
Preliminary study on the freezing point in soil [1993, eng] 48-5200
Primary study on relationship between overburden pressure and freezing point of moist sand [1993, chi] 48-1430

Li, Y.F.
Spatial variations of chemical species in Guliya ice cap [1993, chi] 48-4575

Li, Y.N.
Penetration fracture of ice plate: 2D analysis and size effect [1994, eng] 48-4815
Penetration fracture of sea ice plate: simplified analysis and size effect [1994, eng] 48-4816

Li, Z.F.
Engineering geology investigation report of Tanggula army service station [1992, chi] 48-1492
Permafrost in the loess plateau of China and its relationship to the environment [1993, eng] 48-884
Regional features of permafrost in Mahan Mountain and their relationship to the environment [1993, chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment [1993, eng] 48-5224

Li, Z.Q.
Atmospheric radiative characteristics in a Canadian climatic model [1994, eng] 48-5133

Liakhovskaia, E.I.
Handbook of experimental data on the solubility of multicomponent water-[illegible]line systems [1953, rus] 48-1290

Liakhovskaia, L.F.
Mudflood activity in the foothills of Central Asia [1992, eng] 48-4408

Lian, L.M.
Moisture migration and temperature field during pavement freezing [1993, chi] 48-4580

Lian, O.B.
Pleistocene glaciation in Seymour Valley, British Columbia [1993, eng] 48-971

Liang, B.W.
Crop cold-resistant appraisal principles and appraisal technology system research [1993, chi] 48-4508

Liang, D.L.
Developing conditions, amounts and distributions of glaciers in Gongga Mountains [1993, chi] 48-4587

Liang, F.X.
Permafrost hydrological processes in Binggou basin of Qilian Mountains [1993, eng] 48-491
Satellite imaging of permafrost after forest fire in China [1993, eng] 48-1730
Spaceborne photography of permafrost changes in burned forests [1993, eng] 48-421

Liang, L.H.
Snow cover effect on permafrost temperature [1993, eng] 48-422

Liang, M.T.
Theory of nucleation of ice [1993, eng] 48-1600

Liang, X.S.
Sea ice, polynyas and glacier ice and the formation of water masses [1993, chi] 48-1943

Liang, Z.Z.
Stabilized recycled plastics as high performance asphalt binder modifiers [1993, eng] 48-5075

Liao, Q.R.
MST-88 multichannel temperature data logger [1993, chi] 48-4592

Lied, A.
Ice surface melting revealed by X-ray scattering [1994, eng] 48-4807

Liestöl, O.
Glaciers of Svalbard, Norway [1993, eng] 48-4032

Lifanova, T.A.
Effect of aqueous solutions of anti-icing additive on Thiokol sealants [1993, eng] 48-982

Likhomanov, V.A.
Division into zones of the Northern Sea Route by difficulty and safety of navigation [1993, eng] 48-124
Ice navigating capability in the Northern Sea Route [1993, eng] 48-107

Likhterova, N.M.
Effect of aqueous solutions of anti-icing additive on Thiokol sealants [1993, eng] 48-982

Lilienthal, S.C.
Snow plow assembly adapted for mounting on a vehicle and method of using the same [1990, eng] 48-2181

Liljequist, G.H.
High latitudes: a history of Swedish polar travels and research [1993, eng] 48-1811

Lillford, P.J.
Antifreeze proteins [1994, eng] 48-4659

Lillibridge, J.L., III
Gravity field of the Ross Sea region from satellite altimetry [1994, eng] 48-3487

Lilly, E.K.
Use of spatially distributed data to model arctic hydrologic processes [1993, eng] 48-410

Lim, H.T.
New heating concept for Inuit housing [1979, eng] 48-4143

Lim, J.S.
When to defrost a refrigerator [1994, eng] 48-3815

Lin, C.A.
Diabatically forced mesoscale circulations in the atmosphere [1991, eng] 48-1672

Lin, C.W.
Prevention of canal frost damage [1993, eng] 48-479

Lin, I.I.
Texture-based classification of cloud and ice-cap surface features [1993, eng] 48-1331

Lin, J.D.
Hydrologic response of freshwater watersheds to climatic variability: model development [1993, eng] 48-2054

Lin, N.C.N.
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments [1993, eng] 48-3541

Lin, S.
Thermal control of freezing processes with predetermined rate of freezing [1993, eng] 48-897

Lin, S.C.
Diagnostic analysis of the Presidents' Day storm of February 1979 [1984, eng] 48-3074

Lin, T.
Initiation decision report—arctic nearshore cable installations [1993, eng] 48-1845

Lin, Y.
Melting of a porous medium saturated with water near its density maximum [1993, eng] 48-1614
Study of the prevention of ice damage of structure in water in cold regions [1993, eng] 48-407

Lin, Y.P.
Recent discovery of periglacial phenomena in Inner Mongolia [1993, eng] 48-5249

Lindberg, W.R.
Negatively buoyant jet/plume with applications to snow plow exit flow behavior [1993, eng] 48-1173

Lindbom, B.
Future glaciation and ground water flow at a nuclear waste site [1991, eng] 48-4762

Lindh, E.
Stabilization of sand in a roadbase—Swedish road research [1993, swe] 48-1377

Lindholm, J.E.
Ice model tests of a cylindrical structure [1993, eng] 48-1842
Structure-ice interaction for a Bohai Bay oil production project [1993, eng] 48-4319

Lindqvist, R.
Icebreaker M/S Fennica—Finnish shipbuilding know-how at its best [1993, eng] 48-2339

Lindsay, R.W.
Arctic sea ice surface temperature from AVHRR [1994, eng] 48-2891

Calculation of surface temperature and albedo of arctic sea ice from AVHRR [1993, eng] 48-1354

Lindström, C.A.
Documentation of the manoeuvering simulation computer routine [1993, fin] 48-1844
Ship interaction with a single ice floe: a simulation model [1993, eng] 48-1843

Lindstrom, D.R.
Death of an ice sheet [1993, eng] 48-331

Lindzen, R.S.
Note on orbital control of equator-pole heat fluxes [1994, eng] 48-5371

Ling, H.U.
New alga of red snow in the Windmill Is. region [1993, eng] 48-770

Lingle, C.S.
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. [1993, eng] 48-3605
Statistical evaluation of antarctic glacier radar altimetry [1993, eng] 48-1303

Linn, K.R.
Water resources data for Alaska, water year 1992 [1993, eng] 48-1462

Linsley, G.
IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. [1993, eng] 48-4518

Lipenkov, V.IA.
Air content of ice deposits near Vostok Station [1993, rus] 48-3567
Theoretical studies on densification and relaxation of bubbly glacier ice [1993, eng] 48-2876

Lipp, G.
Interaction of particles and ice-water interfaces during bulk freezing [1992, eng] 48-3079

Lisitsyn, A.P.
Terrigenous sedimentation processes in seas and oceans [1991, rus] 48-303

Lisovskii, I.V.
System of radioecological monitoring for sunken nuclear submarine [1993, eng] 48-4515

Liston, G.E.
Model of turbulent flow with drifting snow [1993, eng] 48-2867

Liston, R.A.
Mobility research: where we have been and where we are going [1993, eng] 48-1161

Litaor, M.I.
Influence of soil interstitial water on alpine streams [1993, eng] 48-3008

Little, R.L.
Changes in North American subalpine tree distribution [1994, eng] 48-4944

Litva, J.
Fractal characterization of radar echoes from icebergs [1993, eng] 48-933

Litvinenko, V.T.
Snow and ice cleaving machine [1992, eng] 48-5515

Litzka, J.H.
Twenty-year-old test road with an EPS-concrete base in Austria [1992, eng] 48-2112

Liu, A.K.
Airborne synthetic aperture radar observations and simulations for waves in ice [1993, eng] 48-977
Ocean-ice interaction in the marginal ice zone [1994, eng] 48-3458

Liu, F.J.
Role of snow in alpine permafrost hydrology [1993, eng] 48-490

Liu, F.P.
Dislocation/grain boundary interactions in ice Ih under creep conditions [1994, eng] 48-5587
In-situ synchrotron x-ray topographic studies of polycrystalline ice [1994, eng] 48-5579

Liu, G.N.
Denudation rate by gelifraction in Tian Shan [1992, chi] 48-2013
Formation and distribution of the sorted circles at the head area of Uru...qi River [1993, chi] 48-4576
Gelifraction of periglacial mountain soils [1993, eng] 48-423
Periglacial mass movement in the head area of the Urumqi River [1993, eng] 48-5202
Periglacial mass movement in the head area of Urumqi River [1993, chi] 48-4487
Sorted circles in an empty cirque at the head of the Urumqi River [1993, eng] 48-5253

Liu, H.X.
Influence of frost heave on pile stability [1993, eng] 48-424

Liu, J.Q.
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR [1994, eng] 48-3462

Liu, Q.R.
Permafrost distribution in Chinese forests [1993, eng] 48-425

Liu, R.H.
Destruction and rehabilitation of shaft lining in frozen shaft [1993, chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft [1993, eng] 48-5243

Liu, S.F.
Reducing frost mounds under foundations by lowering the water table [1993, chi] 48-4495
Reduction of frost heave by lowering the water table [1993, eng] 48-5225

Liu, S.H.
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica [1993, eng] 48-2100

Liu, T.L.
Thaw settlement of railway foundations in permafrost swamp regions [1993, eng] 48-5256

Liu, X.K.
Permafrost and ground water in the Greater Khingan Range [1993, chi] 48-4490
Permafrost and groundwater in the Greater Khingan Range [1993, eng] 48-5259

Liu, Y.F.
Effects of snow cover on thermal regime of frozen soils [1993, eng] 48-430
Formation and distribution of the sorted circles at the head area of Urumqi River [1993, chi] 48-4576

Liu, Y.Z.
Analogic conditions of simulation test of frozen soil's creep [1993, chi] 48-1443
Determining strength of frozen soil with radial-split method [1992, chi] 48-1418
Development of refrigerating cycling bath [1993, chi] 48-1460
Engineering geological survey and distribution of permafrost along Qingkang Highway [1993, chi] 48-1454
Frozen ground and the western waterway from south to north [1993, chi] 48-1453
Laser detection of creep in frozen soil [1993, chi] 48-1456
Primary research of determining strength of frozen soil with axial-split method [1993, chi] 48-1446
Problems of water transfer from south to north China over western permafrost areas [1993, eng] 48-495

Liu, Z.
Katabatic surges across the Ross Ice Shelf [1993, eng] 48-201

Liu, Z.C.
Effects of snow cover on thermal regime of frozen soils [1993, eng] 48-430

Liukkonen, S.
Friction and hull coatings in ice operations [1994, eng] 48-4294

Liverman, D.G.E.
Topographic controls on glacial lake development [1993, eng] 48-5012

Livingston, F.E.
Ozone destruction and bromine photochemistry at ground level in the arctic spring [1990, eng] 48-3296

Livingston, H.D.
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987 [1993, eng] 48-4546

Livingstone, W.R.
Verification of offshore structure foundation standards [1993, eng] 48-1016

Lizunkova, I.S.
Destruction of cometary ice [1988, rus] 48-308

Ljunggren, J.
Bv 206: a proven concept in winter mobility [1993, eng] 48-1165

Lliboutry, L.A.
Rock ice viscosity and rheological parameters [1993, eng] 48-68
Thrust of Glacier Torre over itself [1993, eng] 48-3600

Lo, T.
Fractal characterization of radar echoes from icebergs [1993, eng] 48-933

Lobanov, V.A.
Method of calculating annual runoff in terms of the seasonal total [1992, rus] 48-185
Methods of runoff computations for cold regions in modern conditions [1994, eng] 48-3361

Locatelli, L.
Numerical and experimental study of the artificial freezing of sand [1994, eng] 48-4038

Loch, J.P.G.
Frost heave experiments on Norwegian silty soils [1977, eng] 48-4258

Lock, G.S.H.
Benign, small-scale power unit for the Arctic: the Carnot cycle concept [1989, eng] 48-3431

Lockhart, W.L.
Hydrocarbon and mercury sediments in isolated Canadian lakes [1993, eng] 48-5010

Lodina, R.V.
River bed forming deposits in rivers of northern Eurasia [1993, rus] 48-3741

Loehle, C.
Accuracy of ice core evidence for paleoclimatic warmings [1994, eng] 48-4643
Methane as a source for atmospheric CO2 increases [1993, eng] 48-635

Loewe, P.
Western Baltic sea ice season severity index, pt.1 [1994, eng] 48-3135

Loewenstein, M.
Laser spectrometer for stratospheric trace gas measurement [1993, eng] 48-2407
New observations of the NOy/N_2O correlation in the lower stratosphere [1993, eng] 48-2582

Löffler, E.
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea [1977, eng] 48-3310

Lohanick, A.W.
Radar backscatter measurements from simulated sea ice during CRRELEX '90 [1993, eng] 48-2645
Third Stokes parameter emission from a periodic water surface [1993, eng] 48-2109

Lohi, P.
MSV Fennica, a novel icebreaker concept [1994, eng] 48-4301
Multipurpose icebreaker for the Finnish National Board of Navigation [1993, eng] 48-4344

Lohmann, K.C.
Climate change in continental isotopic records [1993, eng] 48-1494

Lohuis, J.R.
Lubricant effects on low-temperature diesel engine cold starting [1994, eng] 48-3099

Loik, M.E.
Cacti freezing tolerance and cold acclimation [1993, eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. [1993, eng] 48-2559

Loktionova, E.M.
Model of calculation of glacial runoff in central Tien Shan glacier system [1993, eng] 48-4584

Lolaev, A.B.
Effects of leachates from industrial wastes on soil properties in permafrost areas [1994, eng] 48-3358

Lomborinchen, R.
Cryogenic processes and phenomena in Mongolia [1993, eng] 48-426

Lombraña, J.I.
Sublimation in low-temperature dehydration processes [1993, eng] 48-1889

Lonergan, S.
Impact of climate change on Canadian transportation [1993, eng] 48-599

Long, A.J.
Norwegian beach emergence since deglaciation [1993, eng] 48-3799

Long, D.G.
Seasat A scatterometer observations of Greenland ice sheet surface [1994, eng] 48-5159

Long, J.D.
Bucket attachment for use with snow blade [1990, eng] 48-2186

Longinelli, A.
Stable isotope data on alpine catchments in Xinjiang [1993, eng] 48-2800

Loopmann, A.
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984 [1988, eng] 48-2551
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984 [1988, eng] 48-2552

Lopes, V.L.
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona [1993, eng] 48-1752

López-Puertas, M.
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS [1993, eng] 48-4220

López-Valverde, M.A.
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS [1993, eng] 48-4220

Lord, N.
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica [1993, eng] 48-3576

Lorius, C.J.
Polar ice cores and climate [1989, eng] 48-221

Lorrain, R.D.
Low salinity frazil ice at ice shelf base [1993, eng] 48-48

Løset, S.
Discrete element modelling of a broken ice field—part I: model development [1994, eng] 48-5111
Discrete element modelling of forces exerted on a boom for ice management [1993, eng] 48-4354
Efficiency of equipment to reduce the harmful effects of oil spills at sea—an overview [1993, eng] 48-160
Iceberg/structure interaction—effects of ice temperature on the impact force [1994, eng] 48-5558
Laboratory experiments of oil spreading in brash ice [1993, eng] 48-2689
Laboratory experiments of oil spreading in brash ice [1993, eng] 48-4360
Laboratory testing of a flexible boom for ice management [1993, eng] 48-2688
Oil spill research in the Cold Environment Laboratory at SINTEF NHL [1994, eng] 48-4923
Production of icebergs and observed extreme drift speeds in the Barents Sea [1993, eng] 48-127
Proportional strain tests of fresh-water ice rubble [1993, eng] 48-2219
Response of distinct ice floes to ocean gravity waves [1994, eng] 48-5563

Simulation of ice loads on a boom [1994, eng] 48-5112
Losev, G.P.
Device for testing ski sliding surface [1990, eng] 48-2187
Lossius, T.
Oceanographic survey near a glacier [1992, eng] 48-2910
Lotse, E.
Experimental Norwegian alpine watershed acidification [1994, eng] 48-3622
Lott, F.
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE [1994, eng] 48-5508
Lou, A.J.
Application of thermalpile to culvert engineering in permafrost region [1993, eng] 48-375
Long-term shear strength at frozen/unfrozen transition zone [1992, chi] 48-1407
Long-term shear strength of frost-thaw transit zone [1993, eng] 48-5203
Long-term shear strength of frost-thaw transition zone [1993, chi] 48-4492
Louchez, P.R.
Aircraft ground deicing and anti-icing fluids [1994, eng] 48-3111
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids [1994, eng] 48-3367
Louge, M.Y.
On the structure of three-dimensional shear flows [1993, eng] 48-2085
Løvås, S.M.
International Northern Sea Route Program [1994, eng] 48-5593
Lövås, S.M.
Photogrammetric analysis of icebergs in the Barents Sea [1993, eng] 48-128
Lovatt, S.J.
Mathematical model of ice-bank system performance [1993, eng] 48-3199
Low, P.F.
Infrared spectra of frozen clay-water system [1993, eng] 48-1231
Measurement of ice fraction in NaCl solution with FTIR [1992, eng] 48-293
Löwen, H.
Melting, freezing and colloidal suspensions [1994, eng] 48-4020
Löyning, T.B.
Ocean-ice interactions [1992, eng] 48-2900
Optical measurements [1992, eng] 48-2906
Lozej, A.
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy) [1993, eng] 48-362
Lozhkin, A.V.
Long-term Kolyma air temperature variations from tree rings [1994, eng] 48-3509
Lozowski, E.P.
Heuristic freezing spray model of vessel icing [1993, eng] 48-4338
Heuristic freezing spray model of vessel icing [1994, eng] 48-4937
Influence of the Stefan number on interface position [1993, eng] 48-2734
Simulating superstructure icing on the entire vessel [1992, eng] 48-1546
Simulation of icicle growth using a 3D random walk model [1993, eng] 48-817
Lu, G.W.
Geographic boundary of permafrost in the northeast of China [1993, chi] 48-4488
Geographic southern boundary of permafrost in the northeast of China [1993, eng] 48-5226
Lu, H.Y.
Instantaneous-state deformation and strength behaviour of frozen soil [1993, eng] 48-502
Lu, L.H.
1990 antarctic surface energy balance components, Zhongshan Station [1993, eng] 48-1514
Lu, M.C.
Fracture of multiyear sea ice acting on an offshore structure [1993, eng] 48-145
Lu, Q.M.
Multi-year sea ice mapping by thermal infrared radiometry [1994, eng] 48-4472
Nested grid sea ice modelling [1993, eng] 48-165
Lu, S.A.
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River [1994, eng] 48-5611
Lu, S.N.
Ice cover thickness and air temperature [1994, eng] 48-5599
Lu, X.L.
Frost heave forces and pile stability [1993, eng] 48-427
Thaw-consolidation of unsaturated frozen soil [1993, eng] 48-5257
Traffic and transport on ice cover in Nenjiang River [1992, chi] 48-2018
Lubin, D.
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery [1994, eng] 48-4384
Role of clouds and ozone on spectral ultraviolet-B radiation [1994, eng] 48-4385
Solar ultraviolet irradiance at Palmer Station, Antarctica [1994, eng] 48-4383
Luca, O.
Cold time operation improvement of the Bucharest water supply intake [1994, eng] 48-3960
Protection against ice and sediment at water intakes [1994, eng] 48-5550
Lucchitta, B.K.
Antarctic glacier-tongue velocities from Landsat images: first results [1993, eng] 48-1349
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images [1994, eng] 48-3439
Luce, M.P.
Fifteen years of arctic shipping—the lessons learned [1994, eng] 48-4309
Luckman, B.H.
Canadian alpine glacier fluctuations and tree ring records [1993, eng] 48-4702
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies [1994, eng] 48-4971
Snow-avalanche impact landforms: a brief discussion of terminology [1994, eng] 48-4371
Snow-avalanche impact pools in the Canadian Rocky Mountains [1994, eng] 48-4370
Ludlum, D.M.
Snowy year from coast to coast [1994, eng] 48-3324
Ludwig, H.M.
Experiences with the CDF method for testing the frost deicing salt resistance of concrete [1993, eng] 48-3559
Lugg, D.L.
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations [1994, eng] 48-4380
Lunardini, V.J.
Design of an antarctic water well [1993, eng] 48-873
Effect of temperature cycles on permafrost formation time [1993, eng] 48-878
Permafrost formation time [1993, eng] 48-428
Perturbation techniques in phase change heat transfer [1993, eng] 48-1604
Proceedings [1993, eng] 48-857
Temperature variations in the active layer of permafrost [1993, eng] 48-352
Terrestrial component of the cryosphere [1993, eng] 48-2705
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska [1993, eng] 48-882
Lund, C.
Helicopter-borne radio-echo sounding of Svartisen, Norway [1993, eng] 48-1295
Lundberg, A.
Evaporation of intercepted snow—review of existing and new measurement methods [1993, eng] 48-2376
Precipitation intensity and type determined by light attenuation technique [1994, eng] 48-3963
Lundberg, U.
U.S. Army's Bv 206 oversnow vehicle [1993, eng] 48-1180
Lundborg, G.
Pedestrian anti-skid winter footwear [1994, eng] 48-3947
Sustainable urban development in cold climate [1994, eng] 48-3883
Lundeen, G.N.
Comparison of ice drift motion from modeled and buoy data [1990, eng] 48-4730
Lundqvist, L.
Assessing the risk of snow and wind damage from tree physical characteristics [1993, eng] 48-1651
Simulation of snow damage in pine forests [1994, eng] 48-5144
Lundstrom, S.C.
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon [1993, eng] 48-3536
Photogrammetry of Eliot Glacier surface variations, Mt. Hood [1993, eng] 48-1317
Lundy, J.R.
Wheel track rutting due to studded tires [1992, eng] 48-2088
Lunine, J.I.
Massive early atmosphere on Triton [1992, eng] 48-1106
Review of current research on Titan surface properties [1993, eng] 48-1508
Triton's surface-atmosphere energy balance [1992, eng] 48-1605
Luo, B.P.
Freezing of stratospheric aerosol droplets [1994, eng] 48-5499
Luo, L.F.
Further discussion on the thermal hysteresis of the ice growth inhibitor [1994, eng] 48-5118
Luo, M.R.
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China [1993, eng] 48-429
Shallow foundation in the region of frozen ground [1993, eng] 48-467
Luo, W.Q.
Repair of pavement distress in permafrost [1993, chi] 48-4504
Road design and renovations of the north slope in Da Hinggan Ling [1993, eng] 48-5227
Luomajoki, A.
Climatic adaptation of Scots pine in Finland [1993, eng] 48-4060
Luther, J.E.
Barnes Ice Cap fluctuations, Baffin I., Canada [1993, eng] 48-2419
Lüthje, H.
Hydrographic research in a Greenland fjord, 1959 [1990, ger] 48-799
Lutman, E.R.
Northern Hemisphere chlorine activation by polar stratospheric clouds [1994, eng] 48-5493
Photochemical box model of ozone loss in the Northern Hemisphere [1994, eng] 48-5491
Trajectory model of Northern Hemisphere atmospheric chemistry [1994, eng] 48-5492
Lyberis, N.
Surface state of subpolar glaciers from satellite data [1991, fre] 48-3713
Lyglaev, A.V.
Method for low temperature field tests of pipes and pressure vessels [1990, rus] 48-51
Lynch, D.F.
Five-year experience of low-temperature performance of recycled hot mix [1992, eng] 48-2111
Lynch, F.T.
Adverse aerodynamic impact of leading-edge ice buildups [1991, eng] 48-3691
Aerodynamic effects of leading-edge ice accretion [1993, eng] 48-5027
Lynch, J.F.
Greenland Sea ambient acoustic measurements [1993, eng] 48-44
Sea ice cover effect on sound wave propagation times [1993, eng] 48-45
Lynn, W.
Redoximorphic features in permafrost soils [1993, eng] 48-2296
Lyon, P.M.
Automobile heater using a latent heat storage device [1994, eng] 48-3094
Lytle, V.I.
Ice dynamics at Ice Station Weddell 1: I. Part 1. [1992, eng] 48-3778
Ice observations in the western Weddell Sea [1992, eng] 48-3772
Ice thermodynamics at Ice Station Weddell 1. Part 2 [1992, eng] 48-3777
Ice-core studies in the western Weddell Sea [1992, eng] 48-3771
Laboratory backscatter measurements over urea ice with a snow cover at Ku band [1993, eng] 48-2106
Microwave scattering measurements of Greenland firn [1994, eng] 48-4830
Radar backscatter over antarctic sea ice [1993, eng] 48-3301
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2 [1992, eng] 48-3770
Snow properties and surface elevation profiles in the western Weddell Sea [1992, eng] 48-3773
Lytton, R.L.
Integrated model of the climatic effects on pavements [1993, eng] 48-1468
Ma, F.
Aircraft de-icing and anti-icing composition [1990, eng] 48-2266
Ma, H.
Effects of snow cover on thermal regime of frozen soils [1993, eng] 48-430
Snow and permafrost in the Tian Shan Mountains [1993, eng] 48-5215
Ma, W.
Change of pore ice and ice phase stress during the creep process of frozen soil [1993, chi] 48-144
Characteristic of shear creep of frozen fine sand [199?, chi] 48-4579
Creep and creep strength of frozen soil [1993, chi] 48-1441
Elastoplastic calculation of bottom heave in artificially frozen shaft [1992, eng] 48-1400
Experimental study of shear creep of frozen fine sand [1992, eng] 48-1401
Model of migration potential for moisture migration during soil freezing [1993, eng] 48-453
Model of migration potential for moisture migration during soil freezing [1992, chi] 48-1413
Simulation on thaw consolidations of saturated frozen soil [1994, eng] 48-3396
Strength and yield criteria of frozen soil [1993, eng] 48-431
Strength and yield criteria of frozen soil [1992, chi] 48-1417
Strength characteristic of frozen sandy soil [1993, chi] 48-1445

Uniaxial stress relaxation of frozen loess [1992, chi] 48-1415
Uniaxial stress relaxation of frozen loess [1993, eng] 48-5250

Ma, Y.J.
Frost penetration and heave in subgrades under channel linings [1993, chi] 48-4500
Frost penetration and heave under canals with sloping sides [1993, eng] 48-5207

Määttänen, M.
Ice force design and measurement of a conical structure [1994, eng] 48-5577
Ice force interaction effects in multi-legged conical structures [1992, eng] 48-1538
Thermal ice load against isolated structures [1994, eng] 48-5576

Macarchenia, J.H.
Pneumatic deicer [1988, eng] 48-4272

MacAyeal, D.R.
Death of an ice sheet [1993, eng] 48-331

Macdonald, D.J.
Bringing agricultural tractor hydraulics to life at -30 C [1994, eng] 48-3097

Macdonald, G.
Total solutes loads and geochemical yields in the Saskatchewan River basin [1993, eng] 48-64

MacDonald, G.M.
Age-dependent tree-ring growth responses of subarctic white spruce to climate [1994, eng] 48-4808

Macdonald, R.W.
Beaufort Sea oceanographic data, Sep. 1989 [1990, eng] 48-2008
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary [1994, eng] 48-4413

Macfarlane, M.
Logistics options for the Cape Roberts Project [1992, eng] 48-2322

MacGillivray, C.W.
Portable device for the simulation of air frosts at remote field locations [1993, eng] 48-2468

MacGorman, D.R.
Lightning morphology in a tornadic thunderstorm [1994, eng] 48-4691

Machemehl, J.L.
Wave and ice forces on artificial islands and arctic structures [1990, eng] 48-2679

Macheret, IU.IA.
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic [1994, eng] 48-3511
Hydrothermal implications of radio wave propagation in glaciers [1993, eng] 48-2400

Machoczek, D.
Hydrographic research in a Greenland fjord, 1959 [1990, ger] 48-799

Machowski, J.
IASC as legal basis for international arctic cooperation [1993, eng] 48-5000

Mackay, D.
Behaviour of oil in freezing situations [1986, eng] 48-4170

Mackay, J.R.
Ice-wedge cracking at a western arctic coastal location [1993, eng] 48-2208
Pingos and pingo ice of the western arctic coast, Canada [1994, eng] 48-5290
Sound and speed of ice-wedge cracking, arctic Canada [1993, eng] 48-1222

MacKay, M.H.
Evaluation of frost action mitigation procedures for highly frost-susceptible soils [1992, eng] 48-2114
Evaluation of frost action mitigation procedures for highly frost-susceptible soils [1993, eng] 48-5077

Macke, A.
Scattering of electromagnetic radiation by atmospheric ice crystals [1991, ger] 48-4865
Scattering of light by two-dimensional fractals [1993, eng] 48-2992
Single scattering by non-spherical ice particles [1993, eng] 48-2991

MacKenzie, A.R.
Northern Hemisphere chlorine activation by polar stratospheric clouds [1994, eng] 48-5493

MacKenzie, D.
Russia's far north opened up for West [1993, eng] 48-2803

Mackey, B.G.
Intuitive approach to analysing small point-source spatial data sets [1993, eng] 48-62

MacLeod, I.
Baling facility for municipal solid waste for the city of Yellowknife [1994, eng] 48-3357

MacNeil, I.B.
Statistical detection of climate change [1993, eng] 48-1798

MacPhail, R.A.
Spectroscopy of glycerol supercooling thermodynamics [1994, eng] 48-2998

Macpherson, J.B.
Postglacial development of vegetation in Newfoundland [1985, eng] 48-2724

MacPherson, J.I. 48-161
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland [1994, eng] 48-4611

Mader, R.
Schwarzmilzferner glacier in the Allgäuer Alps [1991, ger] 48-3657

Madhukar, M.S.
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites [1994, eng] 48-5150

Madronich, S.
Radiation amplification factors: improved formulation accounts for large increases in ultraviolet radiation associated with antarctic ozone depletion [1994, eng] 48-4382

Mae, S.
Dielectric anisotropy in ice Ih at 9.7 GHz [1993, eng] 48-1335
Dielectric properties of NaCl-doped ice at 9.7 GHz [1993, eng] 48-1867
Effect of hydrostatic pressure on the formation of air-hydrate crystals [1993, eng] 48-1865
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies [1993, eng] 48-1712
Radar sounding of antarctic ice sheet structure [1993, eng] 48-1334

Maeda, T.
Composite materials for arctic use [1993, jpn] 48-1041
Design of a snow melting tank using treated wastewater [1994, eng] 48-5008
Summary of comprehensive snow countermeasures in Toyama Prefecture [1988, jpn] 48-560

Maeda, Y.
Acceleration of oxidation-reduction reactions in freezing solution [1993, eng] 48-1866

Maekawa, Y.
Ice depolarization during rainfall events [1994, eng] 48-4214
Radar detection of thundercloud ice particle distribution [1993, eng] 48-951

Maemoku, H.
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal [1990, jpn] 48-3424

Maenhaut, W.
Size distributions of atmospheric trace elements at Dye 3, pt.2 [1993, eng] 48-3893

Maeno, N.
Compaction and ablation processes of road snow and ice [1989, jpn] 48-674
Growth rates of icicles [1994, eng] 48-5168
Ice/rock porous mixtures: compaction experiments and interpretation [1993, eng] 48-3591
Physical properties of snow and ice particles [1991, jpn] 48-3419
Structures of snow cloud in dry-snow avalanches [1993, eng] 48-2847
Terminology and classification of road snow and ice [1988, jpn] 48-585

Maes, M.A.
Dynamic activity in medium-scale ice indentation tests [1994, eng] 48-3829

Maevskii, I.
Principles and application of mechanical ductless ventilation systems [1994, eng] 48-3862

Maggi, V.
Continuous measurements of Greenland ice core chemistry [1993, eng] 48-1233

Magierski, J.
Permafrost hydrology surrounding a Spitsbergen fiord [1993, eng] 48-355

Magnusson, M.M.
Snow avalanches in Iceland during winter 1989-1990 [1992, ice] 48-5317

Magnússon, M.M.
Snow avalanches in Iceland, winter 1988-89 [1991, ice] 48-5294

Magoon, L.B.
Map of permafrost depth, North Slope, AK [1989, eng] 48-250

Mahajan, P.
Microstructure-based constitutive law for snow [199?, eng] 48-2868
Short term settlement of footing on snow foundation [1993, eng] 48-1176

Mahaney, W.C.
Debris entrainment at an antarctic glacier bed [1993, eng] 48-2393

Mahlman, J.D.
Evaluation of SKYHI general circulation model, pt.1 [1994, eng] 48-4844
Evaluation of SKYHI general circulation model, pt.2 [1994, eng] 48-4845
Modeling of antarctic ozone hole dynamics [1994, eng] 48-3037

Mahmoud, K.G.
Solidification of a liquid on a moving cold plate [1993, eng] 48-1212

Mahnke, P.
Marine information systems as key-tools in port and ocean engineering in polar regions [1993, eng]

Mahoney, J.P.
Evaluation of frost related effects on pavements—summary report [1985, eng] 48-4663

Mahrenholtz, O.
Creep deflection of ice plate under variable loading [1994, eng] 48-3016
Nonlinear primary and secondary creep deflection of ice plate under constant loading [1993, eng] 48-99

Mai, H.
Permafrost studies in Greenland [1993, eng] 48-5214

Mai, H.N.
Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2 [1994, eng] 48-3958

Maier-Reimer, E.
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM [1993, eng] 48-4190

Mailvaganam, N.P.
Repair and protection of concrete structures [1992, eng] 48-2653

Maisano, G.
Dynamical states in liquid water [1993, eng] 48-2367

Majewski, J.
X-ray diffraction study of ice nuclei critical size [1994, eng] 48-4090

Majewski, W.
Flow characteristics in open channels with floating ice cover [1994, eng] 48-5538

Makarevich, K.G.
Dynamic mass exchange in Tuyuksu Glacier [1992, rus] 48-4457

Makarevich, P.R.
Seasonal succession of microphytoplankton in the coastal zone of East Murman [1991, rus] 48-2530

Makarov, V.N.
Eco-geochemical problems in the cryolithozone (for example, in Yakutia) [1992, rus] 48-4795
Geochemistry of Yakutia permafrost zones [1993, eng] 48-526

Makarova, I.I.
Lichens of the central part of the Iskaten Mountain ridge in western Chukotskiy Peninsula [1992, rus] 48-1623

Makarova, I.P.
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels [1990, rus] 48-56

Makarova, T.D.
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers [1992, rus] 48-2117
Role of snow cover in the pollution of landscapes in the Murmansk region [1992, rus] 48-2119
Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution [1992, rus] 48-2118

Makela, K.
Structure-ice interaction for a Bohai Bay oil production project [1993, eng] 48-4319

Mäkelä, T.
New information on the differences between studded and unstudded tyres [1994, eng] 48-3096

Makhinov, A.N.
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts [1993, eng] 48-1084

Makhov, G.A.
Dynamics of the decomposition of butyl 2,4-D ether in frozen soils [1988, rus] 48-913

Maki, M.
Case study of snowstorm gusts and blowing/drifting snow [1993, eng] 48-2842

Makihara, Y.
Measurement of horizontal stress in soil by freezing [1990, eng] 48-2268

Mäkinen, E.
Friction and hull coatings in ice operations [1994, eng] 48-4294

Makinson, K.
BAS hot water drill: development and current design [1993, eng] 48-2739
BAS hot water drilling on Ronne Ice Shelf, Antarctica [1994, eng] 48-5345
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf [1991, eng] 48-6
Oceanographic measurements under Ronne Ice Shelf [1992, eng] 48-241

Makkonen, L.
Climatic mapping of ice loads based on airport weather observations [1993, eng] 48-811
Effect of electric current on the adhesion of ice to metal piles [1994, eng] 48-3965
Modelling of rime icing of wind turbines [1993, eng] 48-822

Makshtas, A.P.
Atmospheric sciences on Ice Station Weddell [1992, eng] 48-3780

Maksimovich, S.V.
Cryogenesis and paleocryogenesis in soils of Mongolia [1993, eng] 48-2278

Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic [1993, eng] 48-2284

Malak, F.R.
Apparatus for removing ice from a chopped or cut hole [1991, eng] 48-2253

Malcolm, R.L.
New techniques in studying humic substances in permafrost soils [1993, eng] 48-2305

Malhotra, V.M.
Concrete durability incorporating domestic fly ash [1994, eng] 48-3783

Malinin, N.I.
Tests of metal materials and structures at low climatic temperatures; collected scientific papers [1990, rus] 48-49

Mallen, J.
Introduced plants in Australian alpine landscapes [1986, eng] 48-207

Malmqvist, P.A.
Composition of melt water from urban snow. A laboratory study [1994, eng] 48-3968

Maltman, A.J.
Microstructures in diamictons—evidence of subglacial bed conditions [1992, eng] 48-2517

Malyshev, L.I.
Flora of Siberia. Volume 5: Salicaceae—Amaranthaceae [1992, rus] 48-3722

Malyshev, M.P.
Ecological aspects of the development of the hydroenergy potential of the cryolithozone [1992, rus] 48-4780

Mamzelev, A.P.
Geological-engineering conditions of Yamal peninsula along designing railroad [1993, eng] 48-432

Manabe, S.
Climate model studies of interactions between ice sheets and the atmosphere-ocean system [1993, eng] 48-4194

Manda, L.J.
Aircraft deicer system [1993, eng] 48-1940

Mangus, N.J.
Ozone mixing in the antarctic polar vortex [1993, eng] 48-965

Mania, J.
Snowmelt in medium-high mountains and recharging of underlying karst [1990, fre] 48-1574

Manificat, A.
Ice pellets and decontamination [1993, fre] 48-3280

Manikonda, S.G.
Applications of recycled plastics for roadside safety hardware [1994, eng] 48-3268

Manix, T.J.
Avalanche flotation ball [1990, eng] 48-2167

Manney, G.L.
Chemical depletion of ozone in the Arctic lower stratosphere during winter 1992-93 [1994, eng] 48-5124
Interhemispheric comparison of stratospheric polar dynamics [1993, eng] 48-629
Microwave sounding of southern polar vortex ozone [1993, eng] 48-630
Simulation of 1979 stratospheric sudden warming [1994, eng] 48-5005

Manning, D.G.
Highway de-icers: standards, practice and research in the Province of Ontario [1991, eng] 48-3068

Manore, M.
Sea ice activities at the Canada Centre for Remote Sensing [1994, eng] 48-3465

Mantripp, D.R.
Densely spaced radar altimeter coverage of antarctic ice shelves [1991, eng] 48-11
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf [1992, eng] 48-250
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica [1993, eng] 48-1325
Thematic maps of Filchner-Ronne Ice Shelf [1991, eng] 48-3

Manual on the use of thermocouples in temperature measurement. Fourth edition
Manual on the use of thermocouples in temperature measurement. Fourth edition [1993, eng] 48-3080

Manukalo, V.A.
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine [1993, rus] 48-2075

Mao, H.K.
Novel H2-H2O clathrates at high pressures [1993, eng] 48-1757
Thermal properties of high pressure ice [1993, eng] 48-922

March, B.
Modern snow and ice techniques [1984, eng] 48-1958

Marchant, D.R.
Quaternary changes of the Taylor Glacier [1994, eng] 48-4947

Marche, C.
Full 2D calculation of ice generation, transport and buildup in natural rivers [1994, eng] 48-5539

Marchenko, A.V.
Calculation of wind currents in the edge zone of a sea ice sheet [1993, eng] 48-926
Surface wave diffraction at a crack in sheet ice [1993, eng] 48-1740
Vortex flows near the sea ice edge [1993, eng] 48-4216

Marchetto, A.
Evaluation of the level of acidification and the critical loads for alpine lakes [1994, eng] 48-5117

Marentes, E.
Role of ice-binding proteins in frost tolerance of winter rye [1993, eng] 48-1254

Marianayagam, C.
Fire protection strategies for the Northwest Territories [1994, eng] 48-3365

Marienfeld, P.
Ice-rafted diamictons in East Greenland fiords [1994, eng] 48-3814

Marilyn Heiman and Associates
Report on Alaska's oil-spill response 1991-92 [1993, eng] 48-4046

Maring, H.
Anthropogenic lead in antarctic sea water [1993, eng] 48-332

Mariniuk, B.T.
Assessment of thermal efficiency of fins under ice cryogeneration conditions [1994, eng] 48-4262

Marino, A.
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna) [1993, ita] 48-4105

Marion, G.M.
Alkaline soil chemistry on the Tanana River floodplain [1993, eng] 48-641
Control of soil development on the Tanana River floodplain, interior Alaska [1993, eng] 48-643
Effects of soil salinity on forest success on a subarctic floodplain [1993, eng] 48-637
Implications of Alaskan Holocene carbon balance for global warming [1993, eng] 48-1381
Open-top devices for manipulating field temperatures in tundra ecosystems [1993, eng] 48-880
Tanana River floodplain soil chemistry [1993, eng] 48-640

Marklund, S.
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden [1991, eng] 48-3755

Markov, M.L.
Modern methods for determination of the base flow in the cryolithic zone [1993, eng] 48-5297

Marks, C.J.
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS [1993, eng] 48-4220

Marks, F.D., Jr.
Aircraft survey of Hurricane Norbert pt.3 [1993, eng] 48-2465

Marks, K.M.
Gravity field of the Ross Sea region from satellite altimetry [1994, eng] 48-3487

Marks, P.
Performance of in-situ hot mix recycling as a maintenance technique in Ontario [1993, eng] 48-5073

Markus, T.
Detection of coastal polynyas with passive microwave data [1993, eng] 48-1348

Marley, N.A.
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail [1994, eng] 48-4977

Marlin, C.
Soil water chemistry during active layer refreezing [1993, fre] 48-970

Marre, A.
Erosion and transport processes on badlands slopes [1993, eng] 48-1849

Marsden, R.F.
Under-ice horizontal velocities at Resolute Bay during the SARES experiment [1993, eng] 48-1079
Under-ice vertical velocities at Resolute Bay during the SARES experiment [1993, eng] 48-1080

Marsh, A.K.P.
Lidar of ice crystals associated with noctilucent clouds [1994, eng] 48-4694

Marsh, P.
Impact of heterogeneous flow paths on snowmelt runoff chemistry [1993, eng] 48-2949
Infiltration of meltwater into frozen soils in a continuous permafrost environment [1993, eng] 48-433
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta [1993, eng] 48-1832
Relocation of major ions in snow along the tundra-taiga ecotone [1993, eng] 48-1155
Snow-atmosphere interactions in arctic snowpacks [1993, eng] 48-2952

Marshall, G.J.
Cloud cover constraints on satellite sensing of polar ice sheets [1993, eng] 48-1308

Marshall, H.N.
Winter highway maintenance data, Vol.2 [1993, eng] 48-1847

Marshall, M.A.
Wind and ice load monitoring on a test line [1993, eng] 48-839

Marshall, S.
Improved snow hydrology for General Circulation Models—pt.1 [1994, eng] 48-5369

Marshunova, M.S.
Atlas of the energy balance of the northern polar area [1992, rus] 48-1479

Marston, R.A.
Glacial response to climate change and epeirogeny in the Nepalese Himalaya [1989, eng] 48-2661

Martel, C.J.
Fundamentals of sludge dewatering in freezing beds [1993, eng] 48-1372
Mechanical freezing of alum sludge [1994, eng] 48-5376
Operation and performance of sludge freezing bed at Fort McCoy, Wisconsin [1994, eng] 48-3386
Snow as an expedient sorbent for hazardous materials [1994, eng] 48-4155

Martens, C.S.
Radon 222 tracing of boreal forest gas exchange [1994, eng] 48-4639

Marti, J.J.
Laboratory simulations of polar stratospheric clouds [1994, eng] 48-3652

Martikainen, P.J.
Effect of lowered water table on nitrous oxide fluxes from northern peatlands [1993, eng] 48-1121

Martin, A.N.
Microwave deicing for aircraft engine propulsor blades [1991, eng] 48-2222

Martin, E.
Sensitivity of the French Alps snow cover to the variation of climatic variables [1994, eng] 48-5418

Martin, J.
Abstracts [1993, eng] 48-796

Martin, L.A.
Computer modeling of alpine stream diversions [1993, eng] 48-689

Martin, S.
Bering Strait current variations from satellite data [1993, eng] 48-1324
Satellite observations of ice/ocean eddies in the Okhotsk Sea [1990, eng] 48-4674

Martin, S.J.
Method and apparatus for acoustic plate mode liquid-solid phase transition detection [1990, eng] 48-4756

Martinec, J.
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days [1994, eng] 48-5157
Operational snow cover mapping by satellites and real time runoff forecasts [1993, eng] 48-2779
Snowmelt runoff forecasts in Colorado with remote sensing [1990, eng] 48-1596

Martinelli, N.
Dendrochronology and glacier variations in the Italian Alps [1993, ita] 48-4095

Martinerie, P.
Air content of ice deposits near Vostok Station [1993, rus] 48-3567
Air content of the Vostok ice core: climatic parameters [1994, eng] 48-4850

Martínez, A.T.
Valley air temperature during frosting conditions [1993, eng] 48-2203

Martinez, D.
Fracture toughness of freshwater ice crystals [1992, eng] 48-1552

Martínez, J.L.
Vibration fluctuations in polycrystalline ice [1993, eng] 48-2027

Martinez, K.
Use of computer-aided learning packages in glaciology and glacial geology [1993, eng] 48-3602

Martinez, M.H.
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes [1993, eng] 48-2966

Martinez, R.
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea [1994, eng] 48-4018

Martinotti, W.
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet) [1993, eng] 48-4542

Martinson, D.G.
Exploring the southern ocean response to climate change. Final report [1993, eng] 48-3817
Ocean heat and seasonal sea ice thickness in the southern ocean [1993, eng] 48-4206
Turbulent mixing under drifting pack ice in the Weddell Sea [1994, eng] 48-2554
Upper-ocean measurements of turbulent flux in the western Weddell Sea [1992, eng] 48-3775

Martner, B.E.
Remote-sensing view of a freezing-rain storm [1993, eng] 48-2467

Martyn, D.
Climates of the world [1992, eng] 48-2709

Marutani, N.
Interactions between ice and the surface of a rockfill dam [1994, eng] 48-3957

Maruyama, T.
Field test of a new snow-particle counter (SPC) system [1993, eng] 48-2843
Simple temperature estimation method in asphalt mixture layers [1993, eng] 48-5080
Mary, G.M.E.
Frost shattering and Pleistocene periglacial slope processes [1988, eng] 48-2563
Maskell, S.J.
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front [1992, eng] 48-5322
Maslanik, J.A.
Arctic sea ice-climate system: observations and modeling [1993, eng] 48-2507
Ice-atmosphere interactions in the central Arctic [1994, eng] 48-3468
Mapping sea ice leads with a coupled numeric/symbolic system [1990, eng] 48-2427
Monitoring lake freeze-up/break-up as a climate index [1993, eng] 48-1794
Radiometric acquisition of sea ice surface temperatures [1993, eng] 48-1351
Satellite detection of sea ice leads—atmospheric factors [1993, eng] 48-1327
Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery [1993, eng] 48-3281
Sea ice-atmosphere interaction and surface energy flux [1993, eng] 48-2641
Temporal variation of cloud fraction: effects on a simulated sea-ice cover [1993, eng] 48-4655
Maslin, M.
Waiting for the polar meltdown [1993, eng] 48-1935
Maslov, V.IA.
Post-technogenic variations in the cryolithozone in the southern lower Anadyr' basin [1992, rus] 48-4799
Mass, C.F.
Snowstorms over the Puget Sound lowlands [1993, eng] 48-2359
Massey, J.
Precision navigation under ice cover [1993, eng] 48-1773
Massom, R.
Remotely sensed sea ice distribution and temperature in arctic seas [1994, eng] 48-3304
Masuda, K.
Ice crystal orientation effect on light scattering in clouds [1989, eng] 48-1475
Mesh data sets of snow cover of the Northern Hemisphere [1990, jpn] 48-3417
Masuda, Y.
Forecasting system for snow and freezing [1986, jpn] 48-20
Study on winter road management methods using forecast reports [1989, jpn] 48-668
Masui, K.
Winter in Tottori [1986, jpn] 48-263
Masukura, K.
Microwave backscattering characteristics of snow [1993, eng] 48-1711
Masullo, A.A.
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules [1994, eng] 48-3018
Mathewes, R.W.
Late glacial climatic change in British Columbia [1985, eng] 48-2726
Mathews, W.H.
Record of jökulhlaups from Summit Lake, northwestern British Columbia [1993, eng] 48-1221
Mathewson, J.T.
Snow making nozzle assembly [1990, eng] 48-2200
Mathieu, G.
Ice Station Weddell (ISW) tracer-oceanography program [1992, eng] 48-3781
Mathot, S.
Phytoplankton ice-edge blooms in the northwestern Weddell Sea [1993, eng] 48-596
Mathur, D.
Electron impact ionization of H2O ice [1993, eng] 48-341
Matich, A.J.
O_2 luminescence from UV-excited H_2O and D_2O ices [1993, eng] 48-2051
Matishov, D.G.
General problems in database formation for the study of arctic marine ecosystems [1992, rus] 48-2071
New data on radionuclide content in the Barents Sea and on the shore [1994, eng] 48-4277
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea [1993, eng] 48-2747
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts [1993, eng] 48-4554
Matishov, G.G.
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas [1992, rus] 48-726
General problems in database formation for the study of arctic marine ecosystems [1992, rus] 48-2071
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands [1992, rus] 48-717
New data on radionuclide content in the Barents Sea and on the shore [1994, eng] 48-4277
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers [1991, rus] 48-2524
Quaternary geology of the shelf areas surrounding Franz Josef Land [1994, eng] 48-5639
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea [1993, eng] 48-2747
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts [1993, eng] 48-4554
Matrosov, S.Y.
Cirrus ice crystal measurements [1993, eng] 48-3644
Cloud ice effects on downward atmospheric longwave radiation [1994, eng] 48-4474
Doppler radar retrieval of vertical profiles of cirrus parameters [1994, eng] 48-4088
Radar survey of cirrus cloud structure [1993, eng] 48-927
Matskevich, D.G.
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures [1994, eng] 48-3028
Ice strength criteria and their role in ice load determination [1994, eng] 48-5617
Matsuda, A.
Freeze-thaw effects on activated sludge processing [1994, eng] 48-3635
Matsuda, M.
Conception of snow information network system in Yamagata Prefecture [1993, jpn] 48-1853
Matsuhashi, H.
Design standardization of snowsheds [1987, jpn] 48-552
Matsukawa, M.
Development of a method for predicting snowfall intensity and compacted snow on roads [1993, jpn] 48-1852
Matsumoto, G.I.
Geochemical monitoring of antarctic lakes and their ecosystems [1994, eng] 48-4640
Matsumoto, H.
Knowledge-based system for condensation diagnostics in houses [1994, eng] 48-3848
Matsumoto, K.
Radiative melting of ice in a rectangular dimple [1993, eng] 48-896
Matsumoto, S.
Snow removal options based on inhabitant preferences [1993, eng] 48-2849
Matsunaga, T.
Recent development of snow removal equipment [1993, eng] 48-1197
Matsuno, S.
Classification of distress of asphalt pavements [1993, eng] 48-5078
Matsuoka, N.
Critical polygon size for ice-wedge formation in Svalbard and Antarctica [1993, eng] 48-434
Matsuoka, T.
Dielectric anisotropy in ice Ih at 9.7 GHz [1993, eng] 48-1335
Dielectric properties of NaCl-doped ice at 9.7 GHz [1993, eng] 48-1867
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies [1993, eng] 48-1712
Matsushita, Y.
Snow blower arrangement [1992, eng] 48-4424
Matsuura, K.
Computer database for falling snowflakes [1993, eng] 48-2820
Measuring sea-ice concentration and floe-size distribution by image processing [1993, eng] 48-2824
Matsuzaki, Y.
Development of a new type of silicone rubber phase spacer [1993, eng] 48-849
Matsuzawa, M.
Road surface temperature and road surroundings relations observed in thermal mapping [1993, jpn] 48-1975
Matsuzawa, Y.
Study on snow attaching to the TACAN antenna [1994, eng] 48-4215
Matteucci, G.
Thin ice cap instability (TICI) [1993, eng] 48-2678
Matthews, D.R.
Short ski climber [1991, eng] 48-2234
Matthews, J.A.
Snow avalanche impact landforms in southern Norway [1994, eng] 48-4369
Matthews, J.V., Jr.
Old Crow tephra in dating of the Wisconsinan climate history [1985, eng] 48-2728
Mattila, R.
Method for changing characteristics of ship and hull form of ice-breaking ship [1992, eng] 48-5522
Mattson, L.E.
Ablation on debris covered glaciers in Punjab [1993, eng] 48-2793
Mattsson, T.
Arctic cargo transportation economic evaluation [1993, eng] 48-101
Matushchenko, A.M.
Nevada—Novaya Zemlya [1992, rus] 48-1268
Mätzler, C.
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data [1994, eng] 48-3469
Study on SAR land applications for snow and glacier monitoring. Final report [1988, eng] 48-3332
Mauldin, R.L., III
Kinetics and photochemistry of halogen oxides relevant to the stratosphere [1992, eng] 48-3300
Maulé, C.P.
Isotopic determination of snow-water contribution to soil water and groundwater [1994, eng] 48-4981
Maupetit, F.
Ice core drilling on Mont Blanc [1994, eng] 48-2713
Maurer, M.A.
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska [1993, eng] 48-1138
Maurickx, T.
Development of a steel grade for arctic applications [1994, eng] 48-3981
Mauser, M.
Forty years in frozen ground—the Fairbanks water distribution system [1994, eng] 48-3379
May, D.A.
Movement and decay of the tabular iceberg A-24 [1993, eng] 48-328
May, E.B.
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms [1993, eng] 48-1846
Mayer, E.
Crystallization kinetics of water below 150 K [1994, eng] 48-2999
Thermodynamic continuity between glassy and normal water [1994, eng] 48-4818
Mayewski, P.A.
Dust and marine aerosols in Central Asian glaciers [1993, eng] 48-2801
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] 48-192
Ice core indications of Northern Hemisphere methane variations [1993, eng] 48-3254
Ice core sulfate from Northern Hemisphere sites [1993, eng] 48-3904
North Atlantic atmospheric circulation and ice cover [1994, eng] 48-3244
Preliminary depth-age scale of the GISP2 ice core [1994, eng] 48-5407
Mazaud, A.
Geomagnetic chronology for antarctic ice accumulation [1994, eng] 48-4692
Mazhitova, G.
Correlation of Russian, US, and Canadian classification systems for selected tundra and taiga soils (in N-E Russia) [1993, eng] 48-2275
Mazzoni, R.
Role of turbulent heat fluxes in the energy balance of high alpine snow cover [1994, eng] 48-4707
McAdoo, D.
Arctic Ocean gravity field derived from ERS-1 satellite altimetry [1994, eng] 48-5107
McAdoo, D.C.
Gravity field of the Ross Sea region from satellite altimetry [1994, eng] 48-3487
McCabe, G.J., Jr.
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado [1994, eng] 48-4446
McCafferty, A.E.
Photogrammetry of Eliot Glacier surface variations, Mt. Hood [1993, eng] 48-1317
McCallion, R.L.
Freeze-thaw fabrication of macroporous hydrogel polymers [1993, eng] 48-5015
McCallum, J.S.
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions [1993, eng] 48-4124
Fifteen years of arctic shipping—the lessons learned [1994, eng] 48-4309
McCarroll, D.
Modelling Holocene Snow avalanche activity [1993, eng] 48-3009
Norwegian ice sheet thickness inferred from bedrock weathering [1993, eng] 48-1011
Snow avalanche impact landforms in southern Norway [1994, eng] 48-4369
McCarthy, D.
Anomalous-scattering region on Triton [1992, eng] 48-990
McCarthy, D.P.
Snow-avalanche impact pools in the Canadian Rocky Mountains [1994, eng] 48-4370
McCarty, G.W.
Effect of freeze-thaw events on mineralization of soil nitrogen [1992, eng] 48-3412
McCauley, D.D.
Method of making an integral heater for composite structure [1990, eng] 48-2267
McClimans, T.A.
Laboratory simulation of the ocean currents in the Barents Sea [1993, eng] 48-3623

McCloy, W.A.
Reconstruction of the CCGS *Louis S. St. Laurent* [1994, eng] **48-4300**
McClung, D.L.
Proceedings [1993, eng] **48-2817**
McClung, D.M.
Avalanche handbook [1993, eng] **48-1945**
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada [1993, eng] **48-2394**
Comparison of analytical snow pressure models [1993, eng] **48-2508**
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada [1994, eng] **48-5171**
Simulation of a destructive avalanche at Maseguchi, Japan [1993, eng] **48-2821**
Snow avalanche runout from two Canadian mountain ranges [1993, eng] **48-2818**
Temperate glacier time response from field data [1993, eng] **48-2395**
McComber, P.
Comparison of selected models for estimating cable icing [1993, eng] **48-816**
Field data on transmission line icing collected at the Mount Valin test site [1994, eng] **48-3020**
Icing study for a future suspended bridge at Montmorency Falls [1993, eng] **48-2971**
McConnell, J.C.
Ozone depletion during polar sunrise [1993, eng] **48-3051**
McCool, D.K.
Facility for hydraulic tests of a frozen soil [1993, eng] **48-3837**
Frozen soil infiltration defined by air permeability [1993, eng] **48-3836**
McCormick, E.F.
Comparison of explosive extraction methods for ground water testing [1994, eng] **48-3825**
Preextraction holding times for nitroaromatics and nitramines in soils [1994, eng] **48-5415**
McCormick, G.
Temperature variation at eighteen Canadian weather stations [1994, eng] **48-3362**
McCormick, M.
Influence of ice on southern Lake Michigan coastal erosion [1994, eng] **48-4161**
McCormick, M.P.
Major results from SAGE II [1993, eng] **48-3732**
McCormick, T.
Microscale meteorological causes of power line failure [1993, eng] **48-834**
McCuaig, S.
Geological Survey of Canada radiocarbon dates XXIX [1991, eng] **48-3935**
McCullough, K.M.
Coal distribution on Ellesmere I., Canada [1993, eng] **48-2415**
McDevitt, C.F.
Applications of recycled plastics for roadside safety hardware [1994, eng] **48-3268**
Composites for roadside hardware [1993, eng] **48-2094**
New and recycled plastic composites for roadside safety hardware [1993, eng] **48-2093**
McDonough, M.W.
Ultrasonic measurement of confined water solidification [1993, eng] **48-2021**
McElroy, C.T.
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project [1993, eng] **48-2586**
McEwen, A.S.
Triton's surface-atmosphere energy balance [1992, eng] **48-1605**
McFarlane, N.A.
Canadian Land Surface Scheme for GCMS, pt.2 [1993, eng] **48-1380**
McGhee, R.J.
Adverse aerodynamic impact of leading-edge ice buildups [1991, eng] **48-3691**
Aerodynamic effects of leading-edge ice accretion [1993, eng] **48-5027**
McGillivray, D.G.
Implications of Beaufort Sea-ice changes for petroleum industry [1993, eng] **48-1276**
McGurk, B.J.
Correlation and prediction of snow water equivalent from snow sensors [1992, eng] **48-3704**
Rain-dominated winter storms in California's Sierra Nevada [1993, eng] **48-2929**
McKendry, I.
Sea breezes and advective effects in southwest James Bay [1994, eng] **48-4617**
McKenna Neuman, C.
Review of aeolian transport processes in cold environments [1993, eng] **48-691**
McKenna, R.
Icebreaking performance from model scale tests [1994, eng] **48-4297**
McKenna, R.F.
Ice rubble buildup on conical structures [1994, eng] **48-5555**
Ice wedge dynamics and local crushing [1993, eng] **48-94**
Impact forces between floes in the Newfoundland ice margin [1993, eng] **48-146**
Modelling the deformation and failure of ice grain assemblies [1993, eng] **48-4398**
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures [1992, eng] **48-1562**
Scaling relationships for icebreaking based on analysis of a simple wedge [1993, eng] **48-175**
McKenzie, J.A.
Climate change in continental isotopic records [1993, eng] **48-1494**
McKeown, S.
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia [1994, eng] **48-3388**
McKim, H.L.
Object-oriented methods for hydrologic modeling and remote sensing [1993, eng] **48-683**
McKittrick, L.R.
Statistical model for maximum avalanche run-out distances in southwest Montana [1993, eng] **48 2869**
McKnight, D.M.
Phytoplankton population dynamics in Lake Fryxell [1994, eng] **48-4813**
McLaughlin, T.J.
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta [1994, eng] **48-3370**
McLean, A.W.M.
Arctic policy bibliography [1991, eng] **48-4939**
McManamon, A.
Estimating snow water equivalent using a GIS [1993, eng] **48-684**
Gridded snow water equivalent estimation using ground-based and airborne snow data [1993, eng] **48-2930**
McManus, J.
Heinrich events: triggers of ocean circulation change? [1993, eng] **48-4187**
McMenamin, G.R.
Hydraulic system for use with snow-ice removal vehicles [1990, eng] **48-2194**
McNeely, R.
Geological Survey of Canada radiocarbon dates XXIX [1991, eng] **48-3935**
McNulty, S.G.
Nutrient cycle in high-elevation spruce-fir stands [1993, eng] **48-1246**
McPartland, J.T.
Mountain snowfall enhancement by cloud seeding in Colorado [1993, eng] **48-1470**
McPeters, R.
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991 [1993, eng] **48-190**
McPhee, M.G.
Turbulent mixing under drifting pack ice in the Weddell Sea [1994, eng] **48-2554**
Upper-ocean measurements of turbulent flux in the western Weddell Sea [1992, eng] **48-3775**
McPhetres, G.H.
Investigation of the feasibility of operating large tethered aerostats in the Arctic [1984, eng] **48-4400**
McQuoid, C.D.
Phytoplankton production and biomass in South Atlantic Ocean frontal zones [1993, eng] **48-918**
McSaveney, M.J.
Dating of a New Zealand moraine sequence [1993, eng] **48-3131**
Talus surface properties in the New Zealand Alps [1983, eng] **48-3341**
Meaney, R.B.
Localized crushing in ice-structure interaction [1992, eng] **48-801**
Mechoso, C.R.
Simulation of 1979 stratospheric sudden warming [1994, eng] **48-5005**
Medeuov, A.
Mudflows of Dzhungarskiy Alatau and some characteristics of their formation [1992, rus] **48-4463**
Medjani, K.
Freezing of brine solutions [1993, eng] **48-2343**
Meeker, L.D.
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] **48-192**
Meese, D.A.
Dating ice cores [1993, eng] **48-1122**
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] **48-192**
Preliminary depth-age scale of the GISP2 ice core [1994, eng] **48-5407**
Meesters, A.
Greenland ice sheet energy balance and climate change [1994, eng] **48-4477**
Meesters, A.G.C.A.
Simulation of the atmospheric circulation near the Greenland ice sheet margin [1994, eng] **48-3516**
Mehl, P.M.
Nucleation and crystal growth in a vitrification solution [1993, eng] **48-2450**
Mehlhorn, W.
Conditions for a load combination ice-earthquake [1991, eng] **48-2633**
Mehrtens, G.
Haloperoxidase activities in arctic macroalgae [1994, eng] **48-5367**
Meier, M.F.
Ice, climate, and sea level; do we know what is happening [1993, eng] **48-4186**
Modeling of snowpack melting variations [1994, eng] **48-5387**
Meikle, K.M.
Arctic and Marine Oilspill Program—AMOP [1989, eng] **48-4138**
Meincke, J.
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993 [1994, eng] **48-3927**
Meir, S.
On the effects of sastrugi on snow albedo [1990, eng] **48-4671**
Meischner, P.
Polarimetric radar studies of atmospheric ice particles [1994, eng] **48-5134**
Mekis, E.
"True snowfall": an evaluation of the double fence intercomparison reference gauge [1993, eng] **48-2934**
Melack, J.M.
Estimating total snow volume in a small alpine watershed [1993, eng] **48-2945**
Groundwater contributions to the hydrochemistry of an alpine basin [1990, eng] **48-1599**
Modeling *L*-band radar backscatter of Alaskan boreal forest [1993, eng] **48-2150**
Surface water geochemistry of a Sierra Nevada watershed [1993, eng] **48-2329**
Melcher, N.B.
Evaluation of selected methods for determining streamflow during periods of ice effect [1992, eng] **48-1870**
Melekestsev, I.V.
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia [1993, eng] **48-4217**
Melke, J.
Influence of relief and lithology on soil formation in West Spitsbergen [1993, eng] **48-414**
Melkozerov, G.V.
Characteristics of the layout and operation of meliorative channels in Yakutia [1992, rus] **48-4786**
Melles, M.
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas [1994, eng] **48-3039**
Melling, H.
Formation of a haline shelf front in wintertime in an ice-covered arctic sea [1993, eng] **48-1616**
Mello, J.E.
Abstracts [1993, eng] **48-796**
Mellon, M.T.
Recent history of Mars water cycle [1993, eng] **48-1618**
Redistribution of subsurface neutrons caused by ground ice on Mars [1993, eng] **48-2057**
Mellor, J.C.
ERS-1 SAR use to determine lake depths in arctic and subarctic regions [1994, eng] **48-3484**
Mellor, M.
Notes on Antarctic aviation [1993, eng] **48-1622**
Mel'nikov, E.S.
Circumarctic map of permafrost and ground ice conditions [1993, eng] **48-5213**
Preliminary engineering-geocryological investigations in the oil and gas bearing regions [1994, eng] **48-3401**
Siberian permafrost surveys [1993, eng] **48-415**
Mel'nikov, P.A.
Terrestrial component of the cryosphere [1993, eng] **48-2705**
Mel'nikov, V.P.
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone [1993, eng] **48-2611**
Geocryological implications of colloid solution freezing [1993, eng] **48-435**
Melo, O.T.
Flashover performance of insulators in the presence of short icicles [1993, eng] **48-4342**
Flashover performance of insulators in the presence of short icicles [1994, eng] **48-4936**
Melsom, A.
Ocean currents induced by wind and waves [1992, eng] **48-4764**
Melting windshield ice
Melting windshield ice [1994, eng] **48-3616**
Meltzer, E.A.
Heated windshield wiper blade and holder [1989, eng] **48-1873**
Meltzer, L.I.
Siberian permafrost mapping [1993, eng] **48-527**
Men, Z.H.
Practice of reinforced concrete strip foundation in permafrost region [1993, chi] **48-4493**
Practice of reinforced concrete strip foundation in permafrost regions [1993, eng] **48-5228**
Menashi, J.D.
Low-frequency passive-microwave observations of sea ice in the Weddell Sea [1993, eng] **48-3004**

Meneghel, M.
Evaluation of the dynamic parameters of Strandline Glacier [1992, ita] **48-3287**
Meng, G.L.
Effect of Bohai ice crushing strength on vertical structures [1993, chi] **48-2096**
Men'shenina, L.L.
Zooplankton changes during the year in Admiralty Bay (February 1990-January 1991) [1992, eng] **48-540**
Mensing, T.M.
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue [1992, eng] **48-2615**
Menzel, W.P.
Cloud properties inferred from 8-12 micron data [1994, eng] **48-2886**
Menzies, J.
Microstructures in diamictons—evidence of subglacial bed conditions [1992, eng] **48-2517**
Meon, G.
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal [1993, eng] **48-2797**
Mercadier, Y.
Heat recovery ventilator operating under frost conditions [1993, eng] **48-870**
Mercer, C.R.
Preliminary study on ice shape tracing with a laser light sheet [1993, eng] **48-2639**
Mercier, R.S.
Reactive transport of suspended particles: mechanisms and modeling [1985, eng] **48-4895**
Meredith, R.W.
Under-ice broadband transient measurements and processing [1992, eng] **48-4744**
Mergen, B.
History of snow sciences in North America [1993, eng] **48-2942**
Mergenmeier, A.
On the way: anti-icing instead of deicing [1994, eng] **48-4256**
Mergenthaler, J.L.
CLAES south-looking aerosol observations for 1992 [1993, eng] **48-631**
Satellite observation of antarctic stratospheric chemistry [1993, eng] **48-623**
Merilinna, M.
New information on the differences between studded and unstudded tyres [1994, eng] **48-3096**
Merry, C.J.
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica [1993, eng] **48-1311**
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery [1993, eng] **48-3578**
Mertes, L.A.K.
Mapping alpine snow using a spectral mixture modeling technique [1993, eng] **48-1309**
Messel, S.
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway [1971, eng] **48-2888**
Messier, D.
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay [1989, fre] **48-3432**
Mestnikov, A.
Construction in polar regions using local raw materials [1994, eng] **48-3948**
Metcalfe, J.R.
"True snowfall": an evaluation of the double fence intercomparison reference gauge [1993, eng] **48-2934**
Metge, M.
Method for the calculation of sheet ice loads on sloping structures [1994, eng] **48-5626**
Metraux, M.
Anti-skid device for vehicle wheels with automatic positioning by securing members [1991, eng] **48-1365**
Metz, P.A.
Landsat linear features and mineral occurrences in Alaska [1983, eng] **48-800**
Metzner, R.
Ice conditions on Alaska's Beaufort Sea Coast: extending the observations [1979, eng] **48-4142**
Meyers, M.P.
Inclusion of ice growth processes in cloud models [1994, eng] **48-2511**
Meylan, M.
Flexural waves on Erebus Glacier Tongue [1994, eng] **48-5174**
Model for the motion and bending of an ice floe in ocean waves [1993, eng] **48-2691**
Model for the motion and bending of an ice floe in ocean waves [1993, eng] **48-4350**
Response of ice floes to ocean waves [1994, eng] **48-2809**
Mi, H.Z.
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway [1993, chi] **48-4589**
Change of the artificial permafrost table under the roadbed and effect on the roadbed [1993, eng] **48-436**
Characteristic of shear creep of frozen fine sand [1993, chi] **48-4579**
Experimental study of shear creep of frozen fine sand [1992, eng] **48-1401**
Permafrost change for asphalt pavement along Qinghai-Xizang highway [1993, eng] **48-5245**
Miao, L.N.
Experimental study of the effect of impurities on ice creep at -1 C [1993, eng] **48-400**
Experimental study on influence of impurity on ice creep at - 1 degree centigrade [1993, chi] **48-1442**
Miao, T.D.
Microstructure damage in the frozen soil creep process [1993, chi] **48-1439**
Microstructure damage theory of creep in frozen soil [1993, eng] **48-5229**
Study on creep of frozen soil by damage mechanics [1993, chi] **48-1438**
Michael, M.
Fire protection strategics for the Northwest Territories [1994, eng] **48-3365**
Michaels, P.J.
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA [1993, eng] **48-2596**
Michaelson, G.J.
New techniques in studying humic substances in permafrost soils [1993, eng] **48-2305**
Michalczyk, Z.
Permafrost hydrology surrounding a Spitsbergen fiord [1993, eng] **48-355**
Michalowski, R.L.
Constitutive model of saturated soils for frost heave simulations [1993, eng] **48-2733**
Phenomenological modelling of frost-susceptible soils [1993, eng] **48-437**
Michel, A.
^{228}RA as a tracer for shelf water in the Arctic Ocean [1993, eng] **48-4544**
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}PA [1993, eng] **48-4545**
Michel, F.A.
Analysis of Siberian fossil glacier ice [1993, eng] **48-1009**
Michel, R.L.
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming [1993, eng] **48-1497**
Michelangeli, D.V.
Ice cloud formation in the Martian atmosphere [1993, eng] **48-1617**
Michielsen, J.C.F.
Small angle x-ray scattering in the early stages of ice formation [1991, eng] **48-3754**
Michimoto, K.
Radar detection of lightning discharges in thunderclouds pt.2 [1993, eng] **48-209**
Middaugh, J.
Epidemiology of injuries in northern areas [1992, eng] **48-4962**
Middlebrook, A.M.
Infrared studies of sulphuric acid films [1993, eng] **48-3638**
Spectroscopic studies of model polar stratospheric cloud films [1992, eng] **48-2635**
Middleton, J.
Numerical model for the prediction of surface frost damage to masonry walls [1991, eng] **48-4956**
Middleton, R.W.
Operational performance of the RV *Nathaniel B. Palmer* [1994, eng] **48-4308**
Mienert, J.
Polar continental margins: studies off East Greenland [1993, eng] **48-2149**
Migala, K.
Role of climate on active layer variations, Svalbard [1993, eng] **48-528**
Mihashi, H.
Return period conversion coefficient for ground snow load on design [1993, jpn] **48-1595**
Mika, J.
Local estimation of power line icing in Hungary [1993, eng] **48-810**
Synoptic estimation of power line icing in Hungary [1993, eng] **48-809**
Mikhailiuk, V.P.
Trolley for transporting snow removal equipment on runways [1992, eng] **48-5514**
Mikhailov, A.A.
Metal and alloy corrosion at Mirnyy Station [1993, eng] **48-2312**
Mikhailov, IU.P.
Problems in the use of natural resources in the taiga zone [1989, rus] **48-900**
Mikhailov, K.V.
Low temperature effects on reinforced concrete tanks [1982, eng] **48-5391**
Mikhailov, V.A.
Dissolution of cementing ice and gas hydrates in permafrost rocks [1994, eng] **48-3976**
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water [1992, rus] **48-4783**
Mikhalev, O.I.
Spin probe study of frozen aqueous solutions [1989, eng] **48-3756**
Mikulinskiĭ, I.A.
Small-angle light scattering by crystalline particles within clouds [1989, eng] **48-1474**
Miles, T.M.
Study of border ice growth on the Burntwood River [1993, eng] **48-5379**
Miller, D.L.
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska [1994, eng] **48-3390**
Miller, G.H.
Holocene ice stream advance, Hudson Strait [1993, eng] **48-2340**
Miller, H.
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet [1994, eng] **48-3437**
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records [1993, eng] **48-4200**
Filchner-Ronne Ice Shelf programme, Report No.5 (1991) [1991, eng] **48-1**
Marine ice physics under the Filchner-Ronne Ice Shelf [1991, eng] **48-4**
Remotely sensed microwave signatures of antarctic firn [1993, eng] **48-1346**
Seismological observatory at Georg von Neumayer Station [1993, eng] **48-4153**
Seismological research at Georg von Neumayer Base, pt.2 [1993, eng] **48-4268**
Miller, J.
Cracks in arctic ice may upset climate models [1989, eng] **48-1749**
Miller, K.A.
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming [1993, eng] **48-1497**
Miller, L.G.
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake [1993, eng] **48-1664**
Miller, M.M.
Glacial response to climate change and epeirogeny in the Nepalese Himalaya [1989, eng] **48-2661**
Himalayan/Alaskan glacier accumulation and global warming [1989, eng] **48-2662**
Miller, R.J.O.
Lacustrine paleoenvironmental records from Baffin Island [1993, eng] **48-3529**
Miller, S.D.
Thermal insulation for cold climate clothing [1987, eng] **48-4900**
Miller, S.M.
Side discharge anti-ice manifold [1993, eng] **48-1654**
Millhouse, J.B.
Remediation of petroleum contaminated soils through bioventing in cold regions [1993, eng] **48-2065**
Millsop, M.D.
Bank recession of Lake Sakakawea, ND [1988, eng] **48-2083**
Milovanov, A.F.
Low temperature effects on reinforced concrete tanks [1982, eng] **48-5391**
Mimken, V.B.
Rapid deployment of camp facilities utilizing point-supported structures [1994, eng] **48-5364**
Minaev, O.P.
Saturated soil compaction by blasts under winter conditions [1994, eng] **48-4486**
Minale, M.
Basal melting of antarctic ice shelves [1993, eng] **48-2410**
Minami, N.
Model project for establishing an avalanche warning and evacuation system [1993, eng] **48-2861**
Spectroscopy of ice grown on solid surfaces [1993, eng] **48-1917**
Minchenko, M.E.
Track-driven forestry tractor [1992, eng] **48-4071**
Mineta, M.
Field study of ice control structure on river rapids [1994, eng] **48-5551**
Minidis, J.D.
Double edge snow ski [1992, eng] **48-2237**
Minikin, A.
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core [1992, eng] **48-243**
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf [1991, eng] **48-5**
Minkin, M.A.
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia [1992, rus] **48-4801**
Minkovskii, G.M.
Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils [1993, eng] **48-2292**
Minnick, P.
Ice impact load measurement aboard the icebreaker *Oden* [1994, eng] **48-4291**
Minnick, P.V.
Infrared heater anti-icing system tests [1993, eng] **48-4122**

Minsk, L.D.
SHRP research on snow and ice control [1993, eng] **48-1191**
Snow and ice control in Japan and United States [1993, eng] **48-2673**
Minster, J.F.
Analysis of satellite-altimeter height measurements above continental ice sheets [1993, eng] **48-3585**
Precise altimetric topography in ice-sheet flow studies [1993, eng] **48-1322**
Seasat observations of the antarctic ice sheet [1993, eng] **48-2401**
Minty, C.D.
Ice sheet basal flow around large obstacles [1994, eng] **48-5172**
Mirenburg, IU.S.
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils" [1993, eng] **48-1103**
Rational methods of building foundations in the southern part of the cryolithozone [1992, rus] **48-4804**
Miretskii, G.I.
New radioecological data for the Russian Federation (from Alaska to Norway) [1993, eng] **48-4549**
Mironov, A.V.
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere [1993, rus] **48-2490**
Mironov, E.U.
Formation of extremely severe ice conditions in the Labrador Sea in winter 1990/1991 [1992, eng] **48-734**
Level ice thickness and multiyear drift in the Arctic [1994, eng] **48-5603**
Mironov, L.V.
Improving the information content of ice manuals [1992, rus] **48-2743**
Mironov, S.A.
Basic forms of damage to concrete by frost [1992, rus] **48-1393**
Mironova, N.A.
Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska [1988, rus] **48-916**
Mirza, J.
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete [1993, eng] **48-1471**
Misawa, M.
Neutron diffraction of hydration in supercooled solutions [1994, eng] **48-3000**
Mishima, O.
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K [1994, eng] **48-3939**
Mita, S.
Experimental study of ice forces on multi-legged structures [1990, jpn] **48-4678**
Mitani, A.
Crystal growth rates in polar firn [1993, eng] **48-2854**
Transformation process observations of polar firn to ice [1993, eng] **48-2852**
Mitchell, B.G.
Meridional zonation of the Barents Sea ecosystem [1991, eng] **48-4734**
Mitchell, D.
High performance air entrained concrete for a bridge in Quebec [1993, eng] **48-2657**
Mitchell, D.L.
Model predicting ice particle size of cirrus clouds, pt.1 [1994, eng] **48-4689**
Model predicting the ice particle size of cirrus clouds, pt.2 [1994, eng] **48-4690**
Mitchell, M.R.
Instruments for measuring subice algal profiles and productivity *in situ* [1993, eng] **48-3201**
Mitsubishi Electric Corporation
Horn shaped snow melting device [1993, eng] **48-4437**
Mitsuhashi, R.
Detection of a straight metal tube by snow search radar [1993, eng] **48-1713**
Enhancement of radar imaging by snow permittivity [1993, eng] **48-3814**
Mitsumoto, M.
SAR detection of snow-covered objects [1994, eng] **48-5135**
Mitusova, T.N.
Mechanism of action of pour-point depressants [1994, eng] **48-4167**
Miura, A.
Wet snow models for estimating snow load on power lines [1993, eng] **48-830**
Miville, B.
Remote sensing for ice monitoring along Canada's east coast [1993, eng] **48-1728**
Miya, A.
Variation of water temperature in an ice-covered stream [1994, eng] **48-5543**
Miyagawa, M.
Development of a large-volume snow to ice converter [1988, jpn] **48-661**
Study on ice forces acting on floating structures [1990, jpn] **48-4677**
Miyake, H.
Chukchi Sea hydrography in 1990-92 [1994, eng] **48-4993**
Miyakoshi, K.
Snow removal options based on inhabitant preferences [1993, eng] **48-2849**
Miyano, A.
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles [1993, jpn] **48-1989**
Miyares, P.H.
Comparison of explosive extraction methods for ground water testing [1994, eng] **48-3825**
Determination of chlorinated organic compounds in soils [1993, eng] **48-798**
Miyawaki, O.
Ice structure size in frozen agar gels analyzed by mercury porosimetry [1993, eng] **48-3624**
Measurement of temperature-dependent ice fraction in frozen foods [1993, eng] **48-3625**
Miyazaki, A.
Ice depolarization during rainfall events [1994, eng] **48-4214**
Miyazaki, T.
OH radical formation in electron-irradiated ice [1993, eng] **48-2052**
MIZEX '87 Group
MIZEX East '87—Fram Strait and Greenland Sea [1989, eng] **48-1815**
Mizoguchi, M.
Infrared spectra of frozen clay-water system [1993, eng] **48-1231**
Measurement of ice fraction in NaCl solution with FTIR [1992, eng] **48-293**
Mizuma, M.
Weather forecasting and road information [1986, jpn] **48-256**
Mizumoto, T.
Regional economy along the Okhotsk Sea in Hokkaido [1994, eng] **48-3992**
Mizumura, K.
Prediction of land subsidence due to ground-water use in snow country [1994, eng] **48-3802**
Mizuno, M.
Examples of radar observations of snowfall in Hokuriku [1989, jpn] **48-667**
Mizuno, T.
Snow cloud observations from MOS-1 data [1990, jpn] **48-4874**
Mizuno, Y.
Field investigation of spray icing on offshore experimental structure [1990, jpn] **48-4668**
Mizushima, T.
Paving material intended to prevent low temperature cracking [1993, eng] **48-5070**
Study on frost heave tests [1988, jpn] **48-588**
Mizutani, H.
Effect of amorphous ice on comet thermal history [1993, eng] **48-753**
Mobley, K.F.
Trans Alaska pipeline reinsulation in Atigun Pass [1993, eng] **48-438**
Mochalov, S.V.
Permafrost zone well cementing [1992, eng] **48-4073**
Mock, C.
Avalanche climate and variations in the West: an overview [1993, eng] **48-1783**
Modica, G.D.
Application of an explicit microphysics mesoscale model to a regional icing event [1994, eng] **48-2326**
Numerical simulation of an icing event during WISP-90 [1992, eng] **48-4748**
Modin, I.N.
Electric geophysical exploration by resistance methods during investigations into frozen rocks [1991, rus] **48-1389**
Moe, G.
Approaches to find iceberg collision risks for fixed offshore platforms [1994, eng] **48-4264**
Moen, J.
Seed survival in a high alpine block field [1993, eng] **48-938**
Mogridge, G.R.
Protective system against icebergs or floating objects [1993, eng] **48-1516**
Mohamed, A.M.O.
Prediction of track performance on deep snowpack [1993, eng] **48-758**
Snowpack compression using element analysis [1993, eng] **48-1223**
Wheeled vehicle mobility evaluation in deep snowpack [1993, eng] **48-1167**
Mohr, H.
Improvement of the cold start qualities of diesel engines with swirl chambers [1994, eng] **48-3084**
Moindrot, D.
Snowmelt in medium-high mountains and recharging of underlying karst [1990, fre] **48-1574**
Moisan, T.A.
Distribution of antarctic diatoms in the Weddell Sea during austral winter [1993, eng] **48-3735**
Moiseenko, T.I.
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation [1992, rus] **48-2120**
Moishi, M.
Prediction of avalanche hazardous slopes using topographic maps [1986, jpn] **48-33**
Mokhov, I.I.
Total ozone global field oscillations [1992, eng] **48-2245**
Molau, U.
Flowering phenology in tundra plants [1993, eng] **48-2423**
Molgaard, P.
Open-top devices for manipulating field temperatures in tundra ecosystems [1993, eng] **48-880**
Moliakov, E.V.
History of research on Novaya Zemlya [1993, rus] **48-1906**
Molina, M.J.
Chemical rate actions of tropospheric halogens on snow/ice [1993, eng] **48-3059**
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications [1993, eng] **48-2315**
Physical chemistry of the H2SO4/HNO3/H2O system [1993, eng] **48-330**
Simulation of polar stratospheric cloud chemical reactions [1993, eng] **48-967**
Stratospheric implications of heterogeneous chlorine interactions [1994, eng] **48-3810**
Möller, D.
Strain and velocity determination on Ronne Ice Shelf [1992, eng] **48-244**
Moller, J.J.
Norwegian beach emergence since deglaciation [1993, eng] **48-3799**
Mølmann, T.
Cast in place concrete piles in permafrost [1993, eng] **48-439**
Mølmann, T.
Use of fresh concrete for piles in permafrost [1994, eng] **48-3352**
Molnar, E.
Occurrence and the fate of organic pollutants in the atmosphere [1993, eng] **48-219**
Molnia, B.F.
Major glacier surge continues [1993, eng] **48-2159**
Molozhnikov, V.N.
Second instance of *Viola incisa* (Violaceae) in Central Siberia [1993, rus] **48-1635**
Monakhov, A.K.
Studying snow cover from radar images [1993, eng] **48-3933**
Monastersky, R.
Staggering through the ice ages [1994, eng] **48-5121**
Monroy, A.F.
Cold-induced changes in plant freezing tolerance [1993, eng] **48-1758**
Monserud, R.A.
Global vegetation model based on the climatological approach of Budyko [1993, eng] **48-1280**
Montfrooij, W.
Low-frequency modes in amorphous ice [1994, eng] **48-5025**
Moorcroft, D.R.
Aspects of the detection of oil under sea ice using radar methods [1986, eng] **48-4175**
Moore, A.M.
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model [1994, eng] **48-5372**
Moore, J.
Ice blisters and ice dolines [1993, eng] **48-3603**
Moore, J.C.
Climate history of the last 150,000 years from Greenland ice cores [1994, eng] **48-5569**
Dielectric properties of ice at various radio frequencies [1993, eng] **48-3002**
High-resolution dielectric profiling of ice cores [1993, eng] **48-2387**
Ice core drilling in central Greenland [1993, eng] **48-3322**
Ice core electrical response to chemical impurities [1994, eng] **48-4696**
Impurity concentrations inferred from radio echo sounding [1991, eng] **48-10**
Properties of marine ice, a new ice type [1994, eng] **48-3303**
Moore, J.M.
Influence of thermal inertia on temperatures and frost stability on Triton [1992, eng] **48-1606**
Moore, J.P.
International Correlation Meeting on Permafrost Affected Soils: guide book—Alaska portion, July 1993 [1993, eng] **48-2497**
Soil classification and climatic zones of Alaska [1993, eng] **48-446**
Warm permafrost soils of interior Alaska [1993, eng] **48-2282**
Moore, J.T.
Use of vorticity parameters to forecast winter precipitation [1993, eng] **48-313**

Moore, K.E.
Boundary layer climate in a subarctic lichen woodland [1994, eng] 48-4635
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen [1994, eng] 48-4638
Moore, M.H.
Far-infrared investigations of a methanol clathrate hydrate [1993, eng] 48-3618
Moore, R.
Sources of organobromines to the arctic temperature [1993, eng] 48-3058
Moore, R.D.
Application of a conceptual streamflow model in a glacierized drainage basin [1993, eng] 48-137
Moore, R.K.
Combined surface- and volume-scattering model for ice-sheet radar altimetry [1993, eng] 48-3594
Moore, T.E.
Stratigraphy, structure, and geologic synthesis of northern Alaska [1992, eng] 48-292
Moore, T.R.
Influence of temperature and water table on wetland emissions [1993, eng] 48-3785
Methane emissions from wetlands, southern Hudson Bay lowland [1994, eng] 48-4604
Methane flux:water table relations in northern wetlands [1993, eng] 48-210
Moore, T.S.
Snowblade assembly [1990, eng] 48-2180
Moorhead, D.L.
Effect of climate change on arctic tussock tundra [1993, eng] 48-2424
Moran, M.L.
Radar signature of a 2.5-D tunnel [1993, eng] 48-1513
Morandi, J.E.
Wind deflector plate for snow plow [1990, eng] 48-2192
Mordovskii, S.D.
Coefficients of linear expansion of freezing soils [1993, eng] 48-70
Mechanical properties of frozen rock in a two-phase model [1994, eng] 48-4837
Mordy, C.W.
Microbial production in the Weddell Sea pack ice [1992, eng] 48-3779
Morehead, M.D.
Oceanographic effects of the Endicott Causeway [1993, eng] 48-795
Regional current measurements in the western Weddell Sea [1992, eng] 48-3776
Morey, R.M.
Reassessment of the in-situ dielectric constant of polar firn [1993, eng] 48-3739
Morgan, A.V.
Paleoecology of glacial deposits, Baffin I., NWT [1993, eng] 48-1219
Morgan, V.
Technical aspects of deep ice drilling on Law Dome [1994, eng] 48-5333
Morgenstern, N.
Pipelines and laterally loaded piles in elastoplastic medium [1993, eng] 48-212
Uplift of model steel pipelines embedded in polycrystalline ice [1993, eng] 48-1013
Mori, A.
Radioecology of Terra Nova Bay [1992, ita] 48-4211
Mori, T.
Prediction of snow storms and snow accretion on power lines [1993, jpn] 48-3168
Morii, T.
Interactions between ice and the surface of a rockfill dam [1994, eng] 48-3957
Morimatsu, H.
Experimental study on roof snow melting system by bar-shaped carbon heater [1993, jpn] 48-1988
Morin, P.
Comparison of pressuremeter test results in sea ice [1994, eng] 48-4481
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost [1993, fre] 48-2351
Morinaga, Y.
Glacier-generated ground motions at Bomi, southeastern Tibet [1993, eng] 48-2754
Mesh data sets of snow cover of the Northern Hemisphere [1990, jpn] 48-3417
Morisawa, T.
Snow depth in forests with various openness grades of canopies [1993, jpn] 48-3180
Morishima, S.
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies [1993, eng] 48-1712
Morison, J.H.
Upper-ocean measurements of turbulent flux in the western Weddell Sea [1992, eng] 48-3775
Morissette, B.
Evaluation of antifreeze solutions for use in ice builders [1993, eng] 48-4249
Moritz, E.
Snow surface temperature measurements by infrared scanner [1986, ger] 48-618
Moriuchi, S.
Reduction of terrestrial gamma rays by snow cover [1990, jpn] 48-3675
Moriwaki, K.
Cenozoic glacial history of Antarctica—A correlative synthesis [1992, eng] 48-921
Sør Rondane Mountains Late Cenozoic glacial history [1992, eng] 48-920
Moriyoshi, A.
Low temperature properties of asphalts and asphaltic mixtures [1993, eng] 48-5089
Morizane, H.
Melting heat transfer along a horizontal heated tube immersed in liquid ice [1993, eng] 48-1105
Mörl, P.
Two dimensional stratospheric aerosol distributions during EASOE [1994, eng] 48-5462
Morland, L.W.
Dry snow pack model [1994, eng] 48-3249
Morley, C.R.
Effects of freeze-tnaw stress on bacterial populations in soil microcosms [1983, eng] 48-3411
Morley, J.G.
Antarctic topography derived from ERS-1 altimetry [1994, eng] 48-3434
Morneau, C.
Stem analysis of a long-lived black spruce clone at treeline [1994, eng] 48-3508
Morohoshi, T.
Satellite data utilization for estimating ablation of debris covered glaciers [1993, eng] 48-2774
Morozova, T.D.
Soil formation and cryogenesis on the Russian plain during the last 125,000 years [1993, eng] 48-2285
Morrell, J.R.
Snowplow mounting assembly for front-end loaders [1989, eng] 48-1519
Morris, E.M.
Contribution of Antarctic Peninsula ice to sea level rise [1992, eng] 48-779
Glaciological measurements on the south Ronne Ice Shelf [1991, eng] 48-8
Snow surface temperatures in West Antarctica [1992, eng] 48-782
Morris, K.
Ice thickness variability of the McMurdo Sound landfast ice runway [1992, eng] 48-3768
Structural characteristics of antarctic land-fast sea ice [1[illegible], eng] 48-2385
Morris, S.E.
Alpine lithofacies variations: working toward a physically-based model [1990, eng] 48-2104
Morrison, M.C.
GISP2 completes coring of Greenland ice sheet [1993, eng] 48-773
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] 48-192
Morrissey, L.A.
Temporal and spatial variability of methane emissions from Alaskan arctic tundra [1992, eng] 48-3525
Morse, D.L.
Glacier geophysical studies for an ice-core site at Taylor Dome: year two [1992, eng] 48-2627
Paleoclimate/ice sheet dynamics from antarctic ice cores [1993, eng] 48-4201
Mortara, G.
Glacial hazards in the Italian Alps [1993, ita] 48-4100
Mortelmans, F.
Behavior of a concrete slab cooled to cryogenic temperature [1982, eng] 48-5397
Morton, D.C.
Snow depth mapping in Mongolia [1993, eng] 48-2967
Mortsch, L.D.
1990 temperature and precipitation during Northern Wetlands Study [1994, eng] 48-4602
Mosbech, A.
Oil spill simulations as a contingency planning tool offshore West Greenland [1993, eng] 48-158
Mosher, B.W.
Seasonal aerosol chemistry at Dye 3, Greenland [1993, eng] 48-3889
Mosher, P.A.
Deicing salt effects on roadside soil chemical mobility [1993, eng] 48-1759
Trace metal solubility in soils and waters receiving deicing salts [1994, eng] 48-4159
Mosier, A.R.
Methane and nitrous oxide flux in a Wyoming subalpine meadow [1993, eng] 48-2548
Mosimann, L.
Analysis of accreted drop sizes and mass on rimed snow crystals [1994, eng] 48-5130
Ice crystal observations and the degree of riming in winter precipitation [1993, eng] 48-217
Moskalevskii, M.IU.
Hydrothermal implications of radio wave propagation in glaciers [1993, eng] 48-2400
Moskvitina, L.V.
Characteristics of the structural formation of weld seams, applied by an irregular fusion method [1990, rus] 48-54
Mosley-Thompson, E.
Climate of the last 500 years: high resolution ice core records [1993, eng] 48-4701
Mote, P.W.
Comparison of observed and modeled stratospheric water vapor [1993, eng] 48-636
Mote, T.L.
Radiometric derivations of Greenland ice sheet surface variations [1993, eng] 48-1328
Moton, C.J.
Open-water resistance and seakeeping characteristics of ships with icebreaking bows [1991, eng] 48-4727
Mott, R.J.
Late-glacial climatic change in the Maritime Provinces [1985, eng] 48-2725
Mouch, T.N.
Computational aerodynamics with icing effects [1993, eng] 48-1961
Mount, M.E.
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea [1993, eng] 48-4517
Mourad, P.D.
Sound scattering from arctic sea ice bottom surfaces [1993, eng] 48-2024
Mouri, H.
Pneumatic tire having foamed tread rubber [1989, eng] 48-4364
Moxim, W.J.
Impact of global NOx sources on the northern latitudes [1993, eng] 48-3050
Moylan, T.
Summary of WinCruise IV to the Antarctic Peninsula during September 1991 [1992, eng] 48-5098
Mozurkewich, M.
Nitric oxide/sulfuric acid reactions at stratospheric temperatures [1994, eng] 48-3149
Mücher, H.J.
Micromorphology of till from Shackleton Range [1993, eng] 48-4269
Mudie, P.J.
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean [1994, eng] 48-4019
Muehlenbachs, K.
Isotopic determination of snow-water contribution to soil water and groundwater [1994, eng] 48-4981
Mueller, M.D.
Aircraft icing environment in wintertime, low ceiling conditions [1985, eng] 48-5100
Muench, R.D.
Regional current measurements in the western Weddell Sea [1992, eng] 48-3776
Muggeridge, D.B.
Computation of sheet ice and ridge ice forces on a faceted cone [1993, eng] 48-152
Ice loads on multifaceted conical structures [1993, eng] 48-138
Model ice forces on a multi-faceted cone [1993, eng] 48-144
Mugnai, A.
Lidar measurements of simulated polar stratospheric clouds [1993, eng] 48-2987
Muhleman, D.O.
Radar photography of ice at the north pole of Mercury [1993, eng] 48-752
Muhonen, A.
Citation analysis of ice-structure interaction conference papers [1994, eng] 48-5566
Laboratory indentation tests with thick freshwater ice. Volume I [1992, eng] 48-3700
Modelling of ice induced vibration of slender offshore structures [1993, eng] 48-2129
Rate effects in brittle ice crushing [1993, eng] 48-92
Mühull, D.V.
Geophysical research on permafrost of the Upper Engadine [1993, ger] 48-1386
Mukherjee, A.
Aircraft window defroster [1990, eng] 48-1874
Mukhin, V.M.
Hydrograph forecasts for a mountain river in a stochastic form [1992, rus] 48-1948
Mulheran, P.A.
Theory of self-organisation in sorted stone stripes [1994, eng] 48-3782
Mulherin, N.D.
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia [1993, eng] 48-854
Muller, E.H.
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York [1992, eng] 48-1928
Müller, R.
Acidic stabilization of arctic stratospheric ice particles [1994, eng] 48-5472
Balloon-borne observations of arctic stratospheric ice particles [1994, eng] 48-5471
Chlorine activation during polar night [1993, eng] 48-3639
Chlorine-induced ozone depletion in the arctic stratosphere [1994, eng] 48-5494

Mullins, K.F.
Antarctic glacier-tongue velocities from Landsat images: first results [1993, eng] **48-1349**
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images [1994, eng] **48-3439**
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium [1992, eng] **48-3227**
Multipurpose icebreaker
Multipurpose icebreaker [1992, fre] **48-3307**
Mulvaney, R.
Glaciological observations on Antarctic Peninsula [1992, eng] **48-2618**
Munakata, T.
Development of a new type of silicone rubber phase spacer [1993, eng] **48-849**
Mundt, C.
Influence of steps on the H2O adsorption on Ni(s) (111) [1993, eng] **48-74**
Munoz, E.A.
Bering Strait current variations from satellite data [1993, eng] **48-1324**
Munter, J.A.
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska [1994, eng] **48-5102**
Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska [1994, eng] **48-5101**
Muntz, H.
How to limit thaw damage to gravel roads [1994, eng] **48-5304**
Truth about winter maintenance [1994, eng] **48-5299**
Murai, S.
Analysis of the traffic accident data base [1993, jpn] **48-1974**
Characteristics of winter traffic accidents in the Tohoku Region [1989, jpn] **48-710**
Murakami, M.
Snow transport in an open channel on mild slope configuration [1993, jpn] **48-3188**
Muraki, Y.
Study on drift ice control utilizing arch formation of ice floes [1993, eng] **48-4353**
Murakuni, M.
Performance test of various tires on roads in snow and ice [1988, jpn] **48-563**
Standard design for fences to prevent snow collapse from cut slopes on highways [1987, jpn] **48-280**
Muramatsu, K.
Simple snow storage method [1988, jpn] **48-656**
Muramatsu, T.
Draft for a guide on safety measures for sidewalk snow removal equipment [1989, jpn] **48-677**
Muramoto, K.
Computer database for falling snowflakes [1993, eng] **48-2820**
Measuring sea-ice concentration and floe-size distribution by image processing [1993, eng] **48-2824**
Muramovich, V.G.
Effect of radial dynamic responses on the service life of sterntube bearings in icebreakers [1993, rus] **48-3763**
Murase, H.
Anti-icing coating compositions [1989, eng] **48-1872**
Murase, K.
Snow and ice countermeasures in 1985 [1986, jpn] **48-17**
Murashko, A.A.
Structure and texture formation of frozen sapropel [1993, eng] **48-365**
Murata, Y.
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles [1993, jpn] **48-1989**
Murayama, K.
Machines for feeder control in hydraulic transport of snow [1992, jpn] **48-3159**
Murcia, A.J.
Snowpack compression using element analysis [1993, eng] **48-1223**
Murcray, F.J.
HNO_3 profiles obtained during the EASOE campaign [1994, eng] **48-5446**
Murphy, D.M.
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere [1994, eng] **48-4048**
Murray, B.C.
Stability of extraterrestrial planetary polar frosts [1992, eng] **48-991**
Murray, D.F.
Dry coastal ecosystems of Alaska [1993, eng] **48-1124**
Murray, D.W.
Towards rational deformation limit states for buried pipelines [1993, eng] **48-4313**
Murray, J.L.
Synopsis of research conducted under the 1992/93 Northern Contaminants Program [1993, eng] **48-1809**
Murrell, S.A.F.
Ice triaxial deformation and fracture [1994, eng] **48-5167**
Murrell, T.
Oil spill response preparedness [1993, eng] **48-790**
Murthy, P.L.N.
Root damage analysis of aircraft engine blade subject to ice impact [1992, eng] **48-4882**
Murton, J.B.
Permafrost history of the Pleistocene Mackenzie Delta [1993, eng] **48-440**
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic [1993, eng] **48-5049**
Mushiake, K.
Snow cloud observations from MOS-1 data [1990, jpn] **48-4874**
Mushiake, N.
Forecasting snowmelt volume from remote sensing data [1993, eng] **48-1681**
Musselman, B.D.
Traction stud [1993, eng] **48-4366**
Musselman, J.R.
Traction stud [1993, eng] **48-4366**
Musselman, R.C.
Biogeochemical fluxes in the Glacier Lakes catchments [1993, eng] **48-4120**
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks [1993, eng] **48-2957**
Methane and nitrous oxide flux in a Wyoming subalpine meadow [1993, eng] **48-2548**
Musy, A.
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle [1990, eng] **48-1567**
Muto, K.
Snow removal on Gassan Mountain highway [1988, jpn] **48-558**
Muzakeev, M.A.
Water balance of Kyrgyzstan [1992, rus] **48-187**
Myers, C.E.
Arctic research of the United States, Vol.7 [1993, eng] **48-1464**
Arctic research of the United States, Vol.7 [1993, eng] **48-2122**
Myers, K.F.
Comparison of explosive extraction methods for ground water testing [1994, eng] **48-3825**
Preextraction holding times for nitroaromatics and nitramines in soils [1994, eng] **48-5415**
Myhre, Ø.
Bearing capacity of pavements insulated with polystyrene boards [1994, eng] **48-4917**
Myklestad, O.
Challenges within oil and gas exploration and production in arctic regions [1994, eng] **48-5562**
Myrzakulova, Z.S.
Lichens of the genera *Cladina* and *Cladonia* from southern Altai (eastern Kazakhstan) [1993, rus] **48-5279**
Mysak, L.A.
Arctic sea ice anomalies and the interdecadal climate cycle [1992, eng] **48-299**
Thermodynamic-dynamic snow sea-ice model [1993, eng] **48-4210**
Na, W.J.
Frost heave in retaining walls in seasonally frozen ground [1993, eng] **48-460**
Na, Y.L.
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China [1993, eng] **48-429**
Nadeau, B.M.
Preliminary evaluation of the analytical holding time for white phosphorus in surface water [1994, eng] **48-5405**
Snow as an expedient sorbent for hazardous materials [1994, eng] **48-4155**
Naftz, D.L.
Ice composition of Wyoming glaciers [1991, eng] **48-2995**
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming [1993, eng] **48-1497**
Nagai, Y.
Snow and ice melting system for road or exposed surface [1993, eng] **48-4436**
Nagaoka, A.
Prediction of snow storms and snow accretion on power lines [1993, jpn] **48-3168**
Nagaoka City Civil Engineering Department
Nagaoka thriving in the snow [1987, jpn] **48-553**
Nagaoka, M.
Roof snow sliding system with electric heater [1993, jpn] **48-1987**
Nagaoka, S.
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal [1990, jpn] **48-3424**
Nagaoka, T.
Reduction of terrestrial gamma rays by snow cover [1990, jpn] **48-3675**
Nagasaka, S.
OH radical formation in electron-irradiated ice [1993, eng] **48-2052**
Nagataki, S.
Pumpable high strength lightweight concrete for structures in arctic marine environment [1986, eng] **48-5314**
Nagle, J.A.
Snowmelt runoff forecasting [1993, eng] **48-685**
Nagler, T.
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas [1994, eng] **48-3478**
Nagornov, O.V.
Drilling of glacier boreholes with a hydrophilic liquid [1994, eng] **48-5341**
Heated drilling bit and thermoelastic stresses in an ice core [1994, eng] **48-5358**
Interaction of hydrophilic liquid with ice [1993, eng] **48-875**
Nagurnyĭ, A.P.
Periodic temperature inversions in the arctic troposphere [1993, eng] **48-1825**
Naito, G.
Observation of the heat flux between atmosphere and ocean with remote sensing (I) [1990, eng] **48-4682**
Naito, T.
Pumpable high strength lightweight concrete for structures in arctic marine environment [1986, eng] **48-5314**
Nakagawa, M.
Estimated budget requirements for snow and cold weather operations for 1989 [1988, jpn] **48-665**
Report on the budget items for snow and cold weather operations in 1987 [1988, jpn] **48-591**
Nakai, S.
Case study of snowstorm gusts and blowing/drifting snow [1993, eng] **48-2842**
Nakamura, E.
Snow removal drain at Kutchian on National Highway 5 [1986, jpn] **48-22**
Nakamura, H.
Case study of snowstorm gusts and blowing/drifting snow [1993, eng] **48-2842**
Depth dependence of snow brightness temperature on sea ice [1993, eng] **48-1683**
Observation of the heat flux between atmosphere and ocean with remote sensing (I) [1990, eng] **48-4682**
Nakamura, M.
Fractal analysis of frost-resistant reinforced cement [1993, eng] **48-1601**
Nakamura, O.
Development of a snow removal truck to manage high snowbanks [1986, jpn] **48-266**
Nakamura, T.
Estimated seasonal snow cover and snowfall in Japan [1993, eng] **48-2848**
Information system to predict road icing in Japan [1993, jpn] **48-4235**
One-dimensional model of the evolution of snow-cover characteristics [1993, eng] **48-2822**
Recent trends in research on snow and ice disaster prevention [1987, jpn] **48-275**
Study on the evaluation methods for the strength of pavement materials [1993, eng] **48-5091**
Winter road surface control in the Hokuriku Region [1993, eng] **48-5082**
Nakamura, Y.
Model project for establishing an avalanche warning and evacuation system [1993, eng] **48-2861**
Nakane, I.
Freezing of an aqueous salt solution through a porous film [1993, eng] **48-4368**
Nakanishi, M.
Earthquake response of offshore structures in sea ice (part 4) [1990, jpn] **48-4669**
Nakanishi, T.
Study on the application of surface recycling methods [1993, eng] **48-5074**
Nakano, T.
Dwarf shrub photosynthesis in an alpine zone [1994, eng] **48-4995**
Track for snow vehicle [1990, eng] **48-2269**
Nakano, Y.
Dependence of segregation potential on the thermal and hydraulic conditions predicted by model M_1 [1994, eng] **48-5151**
Estimation and measurements of transport properties of frozen soils [1993, eng] **48-492**
Growth condition of a segregated ice layer and the segregation potential [1993, eng] **48-886**
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment [1993, eng] **48-2443**
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis [1994, eng] **48-3793**
Osmotic model of ice segregation [1993, eng] **48-859**
Nakanosono, H.
Engine mounting arrangement and drive mechanism for small snowmobiles [1991, eng] **48-2223**
Nakao, S.
Recent topics in geological survey of the antarctic ocean [1993, jpn] **48-2435**
Nakasaki, E.
Snowmobile [1989, eng] **48-4087**
Nakashima, T.
Conception of snow information network system in Yamagata Prefecture [1993, jpn] **48-1853**
Nakata, T.
Three dimensional numerical simulation of snowdrift [1993, eng] **48-1786**

Nakatsugawa, M.
Snow hydrology [1994, eng] 48-4931
Nakatsuka, S.
Studies on freezing and thawing of flat ice on the water surface [1993, jpn] 48-3177
Nakawo, M.
Isotopic fractionation during grain coarsening of wet snow [1993, eng] 48-2840
Measurement of atmospheric radiation for winter road management [1993, eng] 48-1206
Satellite data utilization for estimating ablation of debris covered glaciers [1993, eng] 48-2774
Nakayama, T.
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989 [1992, jpn] 48-3155
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains [1992, jpn] 48-3216
Effects of climatic warming on the active layer [1993, eng] 48-441
Nakazawa, N.
Adfreeze bond strength between sea ice and materials used for offshore structures [1994, eng] 48-3988
Factors influencing the coefficient of friction between sea ice and various materials [1993, eng] 48-95
Nakazawa, T.
Arctic/antarctic atmospheric methane comparisons from ice cores [1993, eng] 48-948
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core [1993, eng] 48-2383
Study on the application of surface recycling methods [1993, eng] 48-5074
Nam, S.I.
Uptake and loss of white phosphorus in American kestrels [1994, eng] 48-3222
Namdar, B.S.
Ice shape and performance for a multi-element airfoil [1991, eng] 48-4859
Nameki, M.
Pollution of fallen snow in urban areas [1994, eng] 48-3966
Nance, J.D.
Airborne measurements of gases and particles from an Alaskan wildfire [1993, eng] 48-1096
Nanni, A.
Concrete precooling method by means of dry ice [1993, eng] 48-2371
Nanthikesan, S.
Anisotropic elasticity of polycrystalline ice I(h) [1994, eng] 48-3250
Numerical modeling of transient creep in polycrystalline ice [1993, eng] 48-924
Narita, H.
Experiment on ice cutting under high liquid pressure and low temperature [1994, eng] 48-5338
Thermal ice core drilling to 700 m depth at Mizuho Station, East Antarctica [1994, eng] 48-5343
Narita, M.
Snow to ice converter [1988, jpn] 48-662
Narita, S.
Looks of ice breaking in model and full scale [1993, jpn] 48-1039
Ships' navigability in the ice-infested waters around the port of Abashiri [1990, jpn] 48-4676
Narumi, A.
Freezing of an aqueous salt solution through a porous film [1993, eng] 48-4368
Naruse, R.
Borehole logging device at Dome F, Antarctica [1994, eng] 48-5351
Summer activities of JARE-34 in 1992-1993 [1993, jpn] 48-2441
Näslund, J.O.
Antarctic landscape formation by mountain glaciation [1994, eng] 48-4987
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia [1994, eng] 48-4828
National Oceanic and Atmospheric Administration
Brief bibliography—snowstorms [1990, eng] 48-2419
National plan to improve aircraft icing forecasts
National plan to improve aircraft icing forecasts [1986, eng] 48-1127
National Research Council. Polar Research Board
U.S. antarctic research report to SCAR No.33, 1991 [1994, eng] 48-4242
National Snow and Ice Data Center. World Data Center-A for Glaciology
Annual report—1993 [1993, eng] 48-1369
NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992
Proceedings [1993, eng] 48-4177
NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992
Proceedings [1993, eng] 48-3045
Naujokat, B.
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems [1994, eng] 48-5441
Naumenko, IU.V.
Species composition of the golden algae *(Chrysophyta)* from the Ob' River [1992, rus] 48-1627
Naumov, A.L.
Energy efficiency in heating and ventilating [1994, eng] 48-3863
Navarre, J.P.
Mechanical properties of snow [1993, ita] 48-1134
Nazarenko, L.S.
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin [1992, rus] 48-3723
Nazarov, V.D.
Method of repairing cracks in ice mass [1992, eng] 48-5529
Neale, P.J.
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton [1992, eng] 48-5097
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area [1994, eng] 48-4386
Nechaev, V.P.
Soil formation and cryogenesis on the Russian plain during the last 125,000 years [1993, eng] 48-2285
Nechaeva, N.S.
Automated short term forecasts of discharges and water levels for the Northern Dvina river system [1992, rus] 48-1946
Neftel, A.
Atmosphere-snow transfer function for hydrogen peroxide [1993, eng] 48-2675
Continuous measurements of Greenland ice core chemistry [1993, eng] 48-1233
Polar ice core records over the past 100,000 years [1993, eng] 48-3057
Nelmes, R.J.
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa [1993, eng] 48-2594
Nelson, D.F.
Kinematic model of river ice motion during dynamic breakup [1993, eng] 48-1621
Nelson, D.J.
Boundary element method applied to freezing and melting problems [1993, eng] 48-1738
Nelson, D.S.
Heated wiper blade using conductive elastomer [1993, eng] 48-1652
Nelson, F.E.
Permafrost and changing climate [1993, eng] 48-5181
Summer thermal regimes in Alaskan permafrost [1993, eng] 48-397
Nelson, J.
Heat conduction problems in crystal growth from the vapor [1993, eng] 48-342
Nelson, J.W.
Temporal variation in aerosol composition at Summit, Greenland, summer 1989 [1993, eng] 48-3915
Nelson, K.E.
Ice thickness and surface features of ice streams D and E [1992, eng] 48-2622
Nelson, L.M.
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil [1978, eng] 48-3410
Nelson, M.G.
Alaska's mineral industry, 1992 [1993, eng] 48-1139
Nelson, R.J.
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin [1992, eng] 48-2090
Field test comparison of calcium magnesium acetate to salt [1993, eng] 48-1272
Nelson, W.G.
Adhesion of fresh and saline ice to bare and coated steel surfaces [1994, eng] 48-3022
Nemes, C.
Local estimation of power line icing in Hungary [1993, eng] 48-810
Nemesure, S.
Cloud effects on snow-covered surface radiation budget [1994, eng] 48-4016
Nemtsova, G.M.
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure [1992, rus] 48-1396
Pleistocene deposits of the White Sea and its coast [1993, rus] 48-3744
Nepomniashchaia, N.V.
Problem of conservation of the water basin in the Krasnoyarsk region [1993, rus] 48-1524
Neralla, V.R.
Utility of passive observations for operational sea ice modelling [1993, eng] 48-4330
Nes, A.
CO_2 uptake in the Nordic seas [1992, eng] 48-2905
Nese, P.I.
Prestressed ice as indigenous polar construction material [1991, eng] 48-4040
Nesje, A.
Holocene glacial activity in western Norway [1993, eng] 48-604
Norwegian Holocene glacier fluctuations [1993, eng] 48-2566
Norwegian ice sheet thickness inferred from bedrock weathering [1993, eng] 48-1011
Nesterov, V.N.
Study of glacial runoff regime in central Tien Shan during 1989-1990 [1993, eng] 48-4573
Neuber, R.
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92 [1994, eng] 48-5461
Spectroscopy of arctic polar night stratospheric gases [1993, eng] 48-1361
Stratospheric aerosol content above Spitsbergen during winter 1991/92 [1994, eng] 48-5463
Neugebohren, K.
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems [1994, eng] 48-5441
Neumann, H.H.
Tower-based measurements of CO_2 wetland fluxes [1994, eng] 48-4609
Wetland energy budget measurements using Bowen ratio techniques [1994, eng] 48-4610
Neururer, A.
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland [1991, ger] 48-764
Nevel, D.E.
Ice force probability issues [1992, eng] 48-1558
Ice forces on cones from floes [1992, eng] 48-1550
Nevels, R.D.
Edge diffraction in the vicinity of the tip of a composite wedge [1993, eng] 48-2108
Nevskii, V.
Maintaining a sluice during winter [1992, rus] 48-3795
Nevzorov, A.N.
Stratiform cloud structure at negative temperatures [1992, eng] 48-1765
Studies into the physics of liquid phase in ice-containing clouds [1993, eng] 48-5295
Nevzorov, L.A.
Providing tower cranes for construction sites in cold climate areas [1993, rus] 48-744
New Russian atomic icebreaker gets underway
New Russian atomic icebreaker gets underway [1993, ger] 48-2629
New sensor can reduce highway deicer use
New sensor can reduce highway deicer use [1994, eng] 48-4255
New ships and offshore structures for the Arctic
New ships and offshore structures for the Arctic [1992, rus] 48-750
NEWATER Steering Committee and Principal Investigators
Northeast water polynya: *Polar Sea* cruise results [1993, eng] 48-2148
Newcomb, D.E.
Strains due to load in frozen and thawed flexible pavements [1994, eng] 48-4912
Newell, R.E.
Tropospheric rivers and ice core data [1994, eng] 48-4391
Newman, W.R.
Cell-free and whole cell ice nucleators and process for their production [1993, eng] 48-1282
Nghiem, S.V.
Model for remote sensing of anisotropic layers [1993, eng] 48-2408
Nguyen, D.D.
Flameless deicer [1993, eng] 48-1285
Nguyen, P.
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete [1993, eng] 48-1471
Nguyen, V.D.
Wing-propeller performance degradation [1991, eng] 48-3690
Ni Chaoimh, U.M.
Influence of North American snow cover on climate [1994, eng] 48-3553
Nichol, S.E.
Comparative antarctic ozone spectrophotometry [1993, eng] 48-1360
Nicholas, J.G.
Retractable tire stud [1993, eng] 48-1653
Nicholls, K.W.
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf [1991, eng] 48-6
Impurity concentrations inferred from radio echo sounding [1991, eng] 48-10
Temperature and salinity beneath Ronne Ice Shelf, Antarctica [1993, eng] 48-3003
Nichols, D.S.
Spring biochemical composition of sea ice diatoms in McMurdo Sound [1993, eng] 48-46
Nichols, H.
Paleoecology of Quebec and northern Labrador [1976, eng] 48-3295
Nichols, P.D.
Spring biochemical composition of sea ice diatoms in McMurdo Sound [1993, eng] 48-46
Nickolayev, O.Y.
Failure modes in compressed ice [1994, eng] 48-5584
Nickus, U.
Ion chromatography of alpine snow [1994, eng] 48-5146
Nicolini, P.
Ice overloads and wind at Mt. Capellino, Italy [1986, eng] 48-615

Niebauer, H.J.
Physical/biological interactions in arctic seas [1993, eng] 48-1510
Niedoroda, A.W.
Sea ice gouging [1991, eng] 48-2680
Nieheisel, J.
Adsorption of long-lived radionuclides on sediment from the Kara Sea [1993, eng] 48-4564
Nielsen, A.
Computer simulation of wind and snow around buildings [1994, eng] 48-3881
Nielsen, C.J.
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces [1993, eng] 48-621
Nielsen, R.H.
Chill warnings from Greenland [1993, eng] 48-1891
Niemeyer, S.
Anthropogenic lead in antarctic sea water [1993, eng] 48-332
Nieminen, J.
Low-energy residential housing case studies of energy efficient buildings [1994, eng] 48-3867
Solar house IEA5. The Finnish IEA Task 13 demonstration house [1994, eng] 48-3870
Niessen, F.
Varve formation in an alpine proglacial lake [1994, eng] 48-4942
Nieuwenhuijzen, M.E.
Permafrost and climatic change: an annotated bibliography [1994, eng] 48-5434
Nigeme, H.
Roadside message system for icing conditions [1987, jpn] 48-279
Nihei, M.
Indoor test of ice and snow tires on iced drum tester [1992, jpn] 48-1850
Nijampurkar, V.N.
Chemical composition of Himalayan glacier ice [1993, eng] 48-1273
Ice dynamics and climatic studies on Himalayan glaciers [1993, eng] 48-2799
Nikandrov, O.M.
Arctic yesterday and today [1992, rus] 48-2741
History of research on Novaya Zemlya [1993, rus] 48-1906
Nikel, K.G.
Moisture deposition from air flow through wall cavities [1993, eng] 48-871
Niki, H.
Earthquake response of offshore structures in sea ice (part 4) [1990, jpn] 48-4669
Proceedings [1993, eng] 48-3045
Seasonal variations of surface layer wetland hydrocarbons [1994, eng] 48-4614
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic [1993, eng] 48-3911
Nikiforov, E.G.
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean [1980, rus] 48-1913
Nikitin, A.I.
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean [1993, eng] 48-4524
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992 [1993, eng] 48-4532
Nikitin, V.A.
Impact loads of drifting ice floes on artificial islands [1993, eng] 48-147
Nikitishena, I.A.
Seasonal soil freezing and hydrological processes on slopes [1993, eng] 48-2295
Nikolaev, V.E.
Thermal interaction between water flow and frozen ground under hydroerosion [1993, eng] 48-2763
Nikolaidis, N.P.
Hydrologic response of freshwater watersheds to climatic variability: model development [1993, eng] 48-2054
Nikonov, A.A.
Snow cover metal content near an earthquake epicenter [1993, eng] 48-1824
Nikulin, M.V.
Reduction of the energy consumption in air curtains [1994, eng] 48-3864
Nilsen, J.H.
Laboratory simulation of the ocean currents in the Barents Sea [1993, eng] 48-3623
Nilsson, E.R.
Hard insert for ice/snow clearing tool [1991, eng] 48-2233
Nilsson, P.
Insulated compost containers for cold climate [1994, eng] 48-3977
Nimaeva, S.Sh.
Mikrobiologiia krioaridnykh pochv (na primere Zabaĭkal'ia) [1992, rus] 48-3633
Ninagawa, K.
Effect of deicers in relation to meteorological conditions [1989, jpn] 48-704
Performance tests on winter tires [1986, jpn] 48-19
Ninomiya, H.
Performance evaluation of anti-icing pavement [1993, eng] 48-1196
Winter road-surface conditions and pavement problems in Hokkaido [1993, eng] 48-5084
NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7 [1993, eng] 48-1862
Nisbet, E.G.
Climate change and methane [1990, eng] 48-1812
End of the ice age [1990, eng] 48-1747
Nishida, T.
Making a snowproof town—Nagaoka New Town [1988, jpn] 48-559
Physiological changes in alpine snowbed plants in Japan [1993, eng] 48-939
Nishihara, H.
Roadside message system for icing conditions [1987, jpn] 48-279
Nishijima, M.
Spectroscopy of ice grown on solid surfaces [1993, eng] 48-1917
Nishikawa, I.
Wiper motor driving device for automotive vehicles [1990, eng] 48-4958
Nishimizu, N.
Effects of fins on solution solidification [1994, eng] 48-4814
Nishimori, M.
Relationship between seasonal snow cover in Japan and recent climatic change [1993, eng] 48-2846
Nishimura, H.
Conception of snow information network system in Yamagata Prefecture [1993, jpn] 48-1853
Nishimura, K.
Observations of the dynamic structure of snow avalanches [1993, eng] 48-2873
Structures of snow cloud in dry-snow avalanches [1993, eng] 48-2847
Nishio, F.
Disintegrating ice front of Shirase Glacier, East Antarctica [1993, eng] 48-1061
Similarity between thermal ice ridge and plate tectonics [1993, eng] 48-1087
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images [1993, eng] 48-1300
Variability in the Okhotsk Sea ice [1993, eng] 48-1066
Nishise, H.
Pedestrian space in snowy country [1986, jpn] 48-28
Nishiyama, H.
Electrically heatable windshield [1991, eng] 48-1733
Nishizawa, T.
Classification of distress of asphalt pavements [1993, eng] 48-5078
Niskala, M.
Air-tightness of private houses—typical problems and case studies [1994, eng] 48-3876
Nitheck, J.
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany [1993, eng] 48-1720
Nitta, N.
Field performance of porous asphalt pavement in cold areas [1993, eng] 48-5085
Nitta, R.
Growth of avalanche education in Japan [1994, eng] 48-3277
Severe snow loads on mountain afforestation in Japan [1991, eng] 48-3702
Niwano, S.
Severe snow loads on mountain afforestation in Japan [1991, eng] 48-3702
Nixon, D.J.
Snow avalanche runout from two Canadian mountain ranges [1993, eng] 48-2818
Nixon, J.F.
Frost heave characteristics of a clayey silt subjected to small temperature gradients [1994, eng] 48-3832
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave [1994, eng] 48-3373
Uplift resistance of pipelines buried in frozen ground [1993, eng] 48-442
Nixon, W.A.
Brittle to ductile transition of ice in compression [1994, eng] 48-3013
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions [1994, eng] 48-5618
Evolution of a university ice lab: IIHR in ice [1992, eng] 48-1536
Measurements of snow plow loads during ice removal [1993, eng] 48-3923
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4 [1994, eng] 48-3012
Use of a low-powered laser to measure crack front development [1993, eng] 48-98
Nobel, P.S.
Cacti freezing tolerance and cold acclimation [1993, eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. [1993, eng] 48-2559
Nobilis, F.
On the probability of extreme snow accumulation in an Austrian alpine river basin [1986, ger] 48-609
Nogami, M.
Effect of snow cover and air temperature on forest distribution [1990, jpn] 48-3426
Noguchi, I.
Study on acid snow [1987, jpn] 48-550
Nohguchi, Y.
Air gaps at the bottom of a melting two-layered snow cover [1993, jpn] 48-3170
Air-gap formation by snow melting [1993, eng] 48-2862
Dynamics of snow avalanches and mathematical models [1992, jpn] 48-3166
Granular avalanche modeling pt.1 [1993, eng] 48-2501
Ping-pong avalanches [1993, jpn] 48-3191
Striped pattern of snowfall and snow cover [1993, eng] 48-2823
Nojiri, Y.
Steel/concrete composite walls for offshore ice protection [1986, eng] 48-5312
Nolan, M.C.
Massive early atmosphere on Triton [1992, eng] 48-1106
Nolin, A.W.
Mapping alpine snow using a spectral mixture modeling technique [1993, eng] 48-1309
Predicting snow cover infrared spectral signature [1993, eng] 48-1313
Spectral reflectance of thin snow [1991, eng] 48-3712
Nomura, A.
Gravity waves in the antarctic mesosphere [1994, eng] 48-4049
Nomura, M.
Regional observations of snow cover in Hokkaido, February 1992 [1992, jpn] 48-3153
Nonnis Marzano, F.
Radioecology of Terra Nova Bay [1992, ita] 48-4211
Noon, C.G.
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave [1993, eng] 48-5205
Noort, M.
Winter maintenance on porous asphalt [1991, eng] 48-3070
Noponen, J.
Thermal ice load against isolated structures [1994, eng] 48-5576
Norberg, J.W.
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin [1992, eng] 48-2090
Nordal, S.
Study of the mechanical properties of spray ice [1994, eng] 48-5564
Norem, H.
Snow engineering for road—about snow avalanches and drifting snow [1994, eng] 48-4026
Norin, B.N.
Phytocoenotic structure of *Larix* open woods in the extreme northern forest stand "Ary-Mas" [1993, rus] 48-5286
Norris, R.M.
Anti-icing valve [1989, eng] 48-4363
Nortala-Hokkanen, A.
Friction and hull coatings in ice operations [1994, eng] 48-4294
Methods to map ice conditions, to measure ice properties and to quantify ice features [1993, eng] 48-177
Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992
Proceedings [1993, eng] 48-1784
Northern Technical Services
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project [1980, eng] 48-4228
Norton, D.C.
Snowfall climatology for the Laurentian Great Lakes [1993, eng] 48-1602
Norton, W.A.
Case study in forecasting the stratospheric vortex during EASOE [1994, eng] 48-5500
Visualizing the evolution of the stratospheric polar vortex in January 1992 [1994, eng] 48-5501
Nosko, P.
Relation of nitrogen-fixing bacteria to arctic graminoid roots [1994, eng] 48-4378
Nosov, N.A.
Dumping of radioactive wastes into the sea environment: scientific and practical aspects [1993, eng] 48-4513
Nøst, E.
Barents Sea tidal current profile calculation [1994, eng] 48-4056
Model simulations of the tides in the Barents Sea [1994, eng] 48-3196
Notholt, J.
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic [1994, eng] 48-5479
Infrared spectroscopy of atmospheric trace gases above Spitsbergen [1994, eng] 48-5478
Moon as light source for spectroscopy of arctic stratosphere [1994, eng] 48-3150

Spectroscopy of arctic polar night stratospheric gases [1993, eng] 48-1361

Noto, S.
Problems of slope protection latticeworks in cold regions [1988, jpn] 48-562

Novak, E.C., Jr.
Seasonal changes in the longitudinal profile of pavements subject to frost action [1992, eng] 48-2116

Novatskii, G.N.
Cyclohexyl nitrate fuel additive for cold starting [1992, eng] 48-5510

Novcaski, K.M.
Water resources data for Alaska, water year 1992 [1993, eng] 48-1462

Novelli, P.C.
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989 [1993, eng] 48-3900

Novo, A.
Air mass identification in relation to pollution episodes in Italian Alps [1991, eng] 48-4763

Novopashin, M.D.
Cracks in structural members and deformed rigid body mechanics [1994, eng] 48-3973
Method of determining the stress of local flow in areas of stress concentration at low climatic temperatures [1990, rus] 48-61
Mining machines serviceability under cold climate conditions [1994, eng] 48-3985
Problems of power and transport industries in the Asian polar regions of Russia [1994, eng] 48-3949

Novoselova, M.S.
Taxonomy of the *Eriophorum* (Cyperaceae) species related to *Eriophorum russeolum* [1993, rus] 48-5275

Novosel'tsev, E.
Ice-navigating ships supply Chukotka [1992, rus] 48-5400

Noyel, G.
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture [1994, eng] 48-4841

Noyel, G.A.
Dielectric properties of supercooled water/alcohol solutions [1990, eng] 48-5024
Dielectric spectra of supercooled carbonate solutions [1990, eng] 48-5056

Nozawa, T.
Experimental study of snow drifting on two-level flat roofs [1993, jpn] 48-1996

Nozhevnikova, A.N.
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature [1993, eng] 48-1898

Nriagu, J.O.
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic [1994, eng] 48-4278

Nuijima, K.
Steel/concrete composite walls for offshore ice protection [1986, eng] 48-5312

Numano, N.
Deaths and injuries from snow accidents in Japan [1993, jpn] 48-3185
Usable space in houses with and without raised floors [1993, jpn] 48-1984

Numata, O.
Relation between snow and damage on external wall of reinforced concrete construction [1993, jpn] 48-1983

Nürnberg, D.
Sediments in arctic sea ice: implications for entrainment, transport and release [1994, eng] 48-5633

Nyby, M.
Welding of quenched and tempered steel at low temperatures [1994, eng] 48-3982

Nydal, R.
CO_2 uptake in the Nordic seas [1992, eng] 48-2905

Nykänen, H.
Effect of lowered water table on nitrous oxide fluxes from northern peatlands [1993, eng] 48-1121

Nyland, D.L.
Surface sources on floating ice: the flexural ice wave [1984, eng] 48-3920

Nysten, E.
European project COST 309, road weather conditions [1993, eng] 48-1203

Nystrom, M.
Effect of transverse inhomogeneity on deformations and stresses in an ice cover [1993, eng] 48-4326

Nyström, M.
Non-simultaneous ice failure on wide and narrow offshore structures [1994, eng] 48-5616

Nytomt, J.
Improving the cold starting ability of an engine [1990, eng] 48-2202

Oana, H.
Development of operations management systems for snow removal equipment [1988, jpn] 48-556

Obayashi, K.
Design standardization of snowsheds [1987, jpn] 48-552

Øberg, G.
Correlation of studded tire use and road safety [1993, swe] 48-4022

MINSALT—extension of the regions in Sweden where salt is not used: effect studies [1993, eng] 48-1208
Traffic on ice and snow [1993, eng] 48-5061

Oberhuber, J.M.
Thermodynamic-dynamic snow sea-ice model [1993, eng] 48-4210

O'Brien, S.
Flexural strength equation for sea ice [1994, eng] 48-3831

Ochiai, H.
Satellite time series monitoring of Okhotsk Sea ice in 1992 [1993, jpn] 48-1067

Ochterbeck, J.M.
Freeze/thaw characteristics of room temperature heat pipes [1994, eng] 48-3555

O'Connor, J.E.
Hazards in North American glacierized basins from global warming [1993, eng] 48-3557

O'Connor, R.
Disposing of de-icing chemical runoff at airports [1993, eng] 48-2758

Oda, S.
Anti-skid device for tired vehicle wheels [1990, eng] 48-2256

Ødegård, R.S.
Cryogenic weathering of a Svalbard coastal cliff [1993, eng] 48-634
Mass balance and changes of surface slope of a Spitsbergen glacier [1993, eng] 48-3415

Odintsov, K.L.
Electric geophysical exploration by resistance methods during investigations into frozen rocks [1991, rus] 48-1389

Ödum, S.
Afforestation experiments reflecting the treeline conditions in southwest Greenland [1990, eng] 48-82

Oechel, W.C.
Carbon flux in unmanaged arctic ecosystems [1993, eng] 48-1884
Implications of Alaskan Holocene carbon balance for global warming [1993, eng] 48-1381
Open-top devices for manipulating field temperatures in tundra ecosystems [1993, eng] 48-880

Oelhaf, H.
Infrared spectrometry of arctic stratospheric chemistry [1994, eng] 48-5456

Oerlemans, H.
Monitoring glaciers to detect climatic change [1989, eng] 48-2568

Oerlemans, J.
Energy balance model of the Greenland ice sheet [1994, eng] 48-3520
Glacier mass balance, pt. 2. Application to Greenland ice sheet [1991, eng] 48-3654
Greenland and antarctic ice sheet melting effects on sea level [1993, eng] 48-1564
Ice and climate studies [1989, eng] 48-223
Ice shelves and icebergs—an overview [1989, eng] 48-1661
Meteorological experiment in the melting zone of the Greenland ice sheet [1993, eng] 48-2059
Model for the surface balance of ice masses: pt.1. Alpine glaciers [1991, eng] 48-3653
Modelling of glacier mass balance [1993, eng] 48-4183
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91 [1994, eng] 48-3512
Quantifying global warming from the retreat of glaciers [1994, eng] 48-3302
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery [1993, eng] 48-1294

Oerter, H.
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records [1993, eng] 48-4200
Filchner IV campaign and the 320 m deep ice core B15 [1992, eng] 48-242
Filchner-Ronne Ice Shelf programme, Report No.5 (1991) [1991, eng] 48-1
Filchner-Ronne Ice Shelf programme, Report No.6 (1992) [1992, eng] 48-233
Marine ice physics under the Filchner-Ronne Ice Shelf [1991, eng] 48-4
Modeling Greenland ice sheet sensitivity to climatic changes [1994, eng] 48-3518
Results from Austrian glaciers [1994, eng] 48-2715
Ronne Ice shelf core and textural evolution of deforming ice [1992, eng] 48-238

Oertgen, E.
Belt-type caterpillar for track-laying vehicles and snowmobiles [1991, eng] 48-2226

Oeschger, H.
Information on the history of atmospheric CO2 and the carbon cycle from ice cores [1989, eng] 48-220

Oganesian, M.E.
Synopsis of the species of the subgenus *Scapiflorae* of the genus *Campanula* (Campanulaceae) [1993, rus] 48-1645

Ogano, T.
Auger for self-propelled snow removing machine [1990, eng] 48-2196

Ogata, S.
Observation of drift ice and salt field in the Liaodong Bay, China, by MOS-1/MESSR [1998, eng] 48-4870

Ogino, H.
Performance tests on winter tires [1986, jpn] 48-19

Oglesby, R.J.
Early Pliocene climate and ice-sheet modeling [1992, eng] 48-2617
GCM study of antarctic glaciation [1989, eng] 48-1659
Improved snow hydrology for General Circulation Models—pt.1 [1994, eng] 48-5369

Ogram, G.L.
HT deposition to snow. Chalk River Laboratories, March, 5-6, 1991 [1992, eng] 48-2644

Ohara, J.
Measurement of horizontal stress in soil by freezing [1990, eng] 48-2268

Ohashi, K.
Piping apparatus for melting snow and ice [1989, eng] 48-4080

Ohmori, H.
Soil formation and environmental changes in China's loess [1990, jpn] 48-3425

Ohmura, A.
Estimation of alpine glacier water resources and their change since the 1870s [1990, eng] 48-1576
How does the Greenland ice sheet geometry remember the ice age [1994, eng] 48-3521
Lead distribution in the sea ice area in the Sea of Okhotsk and the Arctic [1990, eng] 48-4679
On the influence of alpine glaciers on runoff [1990, eng] 48-1575

Ohno, H.
Improved gauge for winter precipitation measurements [1993, eng] 48-2855

Ohring, G.
Climate and global change—characteristics of NOAA satellite data [1989, eng] 48-1820

Ohshima, K.I.
Flow and oceanic structure under fast ice in Lützow-Holm Bay [1993, eng] 48-1060
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992 [1994, eng] 48-4765
Sea-ice growth in Ongul Strait, Antarctica [1993, eng] 48-2834
Thermal structure of the coastal polynya off Showa Station [1993, jpn] 48-2875

Ohta, I.
Radiative melting of ice in a rectangular dimple [1993, eng] 48-896

Ohta, T.
Energy budget comparison of snowmelt rates in a deciduous forest and an open site [1993, eng] 48-2827

Ohtsu Tire and Rubber Company Ltd
Pneumatic tyre with improved traction and breaking performance [1993, eng] 48-4432

Oi, M.
Development of automatic antenna elevation angle setting at Doppler radar observation [1992, jpn] 48-3217

Oikawa, K.
Automatic monitoring system for acid rain and snow based on ion chromatography [1994, eng] 48-5145

Ojamäe, L.
Ice VIII properties from crystal-orbital calculations [1994, eng] 48-2740
Stretching frequencies in high pressure ice [1993, eng] 48-214

Ok, H.N.
Incompressible solver and ice accretion on an airfoil [1994, eng] 48-3554

Okada, A.
Hydraulic transport of snow by pipe [1986, jpn] 48-32
Machines for feeder control in hydraulic transport of snow [1992, jpn] 48-3159

Okada, K.
Effect of thermal insulation depth on tunnel ice prevention [1992, eng] 48-2597
Frost penetration in a railroad tunnel [1992, eng] 48-2599
Insulator design for icicle prevention in a railway tunnel [1992, eng] 48-2598

Okada, M.
Radiative melting of ice in a rectangular dimple [1993, eng] 48-896

Okamoto, K.
Development of high resolution ice echo sounder [1993, eng] 48-1065

Okamoto, S.
Uniaxial compressive strength and elastic modulus of sea ice [1993, eng] 48-4327

Okano, K.
Icequakes recorded at Syowa Station, Antarctica [1993, eng] 48-3278

Okeguchi, I.
Snow and cold weather countermeasures in 1985 [1986, jpn] 48-16

Okhlopkova, A.A.
Tribology of frost-resistant antifriction materials [1994, eng] 48-3980

Okinshevich, V.V.
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects [1990, rus] 48-306
Ökland, H.
Precipitation from convective boundary layers in arctic air masses [1994, eng] 48-3134
Okolodkov, IU.B.
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991 [1993, eng] 48-5002
Phytoplankton samples from the Barents and Greenland Seas [1993, eng] 48-5001
Okubo, Y.
Strength of river ice in the high snow accumulation region of Hokkaido, Japan [1994, eng] 48-5581
Okui, K.
Experimental study on melting process of ice containing conductive copper solids [1993, eng] 48-894
Okusumi, M.
Study on winter road management methods using forecast reports [1989, jpn] 48-668
Okuya, T.
Visibility reduction by snow in the wake of highway vehicles [1993, jpn] 48-1968
Olafsson, H.
Precipitation from convective boundary layers in arctic air masses [1994, eng] 48-3134
Olbers, D.
Hydrographic atlas of the southern ocean [1992, eng] 48-3766
Links of the southern ocean to the global climate [1993, eng] 48-3728
Oldale, R.N.
Sedimentary framework of Boston Harbor, Massachusetts [1992, eng] 48-1926
Oldenburg, J.R.
Preliminary study on ice shape tracing with a laser light sheet [1993, eng] 48-2639
Olech, M.
Lichenicolous fungi from Spitsbergen [1993, eng] 48-5003
Olesen, O.B.
Seasonal ablation of West Greenland ice sheet margin [1993, eng] 48-2390
Oleskiw, M.M.
Freezing precipitation on lifting surfaces [1991, eng] 48-4864
Olfe, D.B.
Stability of thick ice formation in pipes [1993, eng] 48-866
Olmez, I.
Trace elements in basal ice at Dye-3 [1993, eng] 48-3905
Olofsson, J.A.
Selection of sanitation alternatives: a strategy for remote Alaskan communities [1994, eng] 48-3383
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors [1994, eng] 48-3375
Olonova, M.V.
Chronological study of the taxonomic structure of *Poa* of the section *Stenopoa* (Poaceae) in Siberia [1993, rus] 48-5277
Olonshek, D.
Snow cover of an area according to observation data from stations and satellites [1992, eng] 48-1768
O'Loughlin, H.
Auger snowblower [1989, eng] 48-4086
Olovin, B.A.
Degradation of cryogenic strata in large water storage areas [1993, eng] 48-529
Olsen, R.A.
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992 [1993, eng] 48-4551
Olsen, R.B.
Airborne synthetic aperture radar observations and simulations for waves in ice [1993, eng] 48-977
Olsson, I.U.
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic [1993, eng] 48-2746
Oltmans, S.J.
Antarctic ozone and stratospheric cloud observations 1991 [1993, eng] 48-189
Climatology of arctic and antarctic tropospheric ozone [1993, eng] 48-3047
Olyphant, G.A.
Alpine lithofacies variation: working toward a physically-based model [1990, eng] 48-2104
Talus cliff burial in a Coloradan alpine setting [1983, eng] 48-3342
Omel'chenko, M.V.
Psychrophilic methanotroph from tundra soil [1993, eng] 48-4661
Ommanney, C.S.L.
Recent Canadian glacier references—1986-1988 [1989, eng] 48-2448
Water in the solid phase: the state of our snow and ice resources [1989, eng] 48-2509
Omstedt, A.
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary [1994, eng] 48-4413
Simulation of supercooling and size distribution in frazil ice dynamics [1994, eng] 48-3826
Omura, S.
Snow removal on Gassan Mountain highway [1988, jpn] 48-558
Ondrejik, D.
Movement and decay of the tabular iceberg A-24 [1993, eng] 48-328
Ondrusek, M.E.
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition [1992, eng] 48-5095
O'Neal, D.L.
Simulation of ice-covered heat pump performance [1993, eng] 48-2151
Verification of model of ice-covered heat pump performance [1993, eng] 48-2152
O'Neill, A.
Dynamics of the arctic polar vortex during the EASOE campaign [1994, eng] 48-5439
Rapid descent of mesospheric air into the stratospheric polar vortex [1993, eng] 48-627
Stratosphere-troposphere data assimilation system [1994, eng] 48-4067
O'Neill, K.
H-polarized scattering from single and multiple elongated cavities [1993, eng] 48-2058
On thin ice: radar identification of thin and not so thin layers in hydrological media [1988, eng] 48-1466
Third Stokes parameter emission from a periodic water surface [1993, eng] 48-2109
Ono, M.
Snowstorm guard fence structures and jet roofs [1990, eng] 48-2270
Ono, N.
Sea-ice features interpreted in a combination of multi sensor data [1990, jpn] 48-4878
Theoretical approach describing the thermal regime of snow- covered sea ice [1993, eng] 48-2831
Year-to-year variability of sea ice extent in the arctic and subarctic seas [1993, eng] 48-1063
Ono, T.
Factors influencing the coefficient of friction between sea ice and various materials [1993, eng] 48-95
Ono, Y.
Movement of ice floes near a river mouth on the Okhotsk Sea coast [1993, jpn] 48-1049
Onoda, M.
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction [1987, jpn] 48-274
Road freezing countermeasures [1987, jpn] 48-548
Onstott, R.G.
Arctic sea ice microwave signature and geophysical processes study [1993, eng] 48-1693
Optical properties for sea ice measured during LEADEX '92 [1993, eng] 48-1703
Polarimetric radar measurements of artificial sea ice during CRRELEX '88 [1990, eng] 48-4747
Polarimetric radar scattering measurements of laboratory grown sea ice [1993, eng] 48-1699
Oregon experiments with anti-icing operations
Oregon experiments with anti-icing operations [1994, eng] 48-4254
Orheim, O.
Glaciers of Jan Mayen, Norway [1993, eng] 48-4033
Studies through Jutulgryta, Fimbulisen in the 1991/92 season [1992, eng] 48-253
Orihara, H.
Report on permafrost study at Isla Marambio (Seymour Island) [1993, jpn] 48-2433
Orlandini, K.A.
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail [1994, eng] 48-4977
Orolbaeva, T.V.
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan [1990, rus] 48-1237
Orombelli, G.
Glaciological investigations in the Italian National Antarctic Research Program [1992, ita] 48-3289
O'Rourke, M.
Roof-snow load for seismic-design calculations—discussion [1994, eng] 48-2356
Orr, B.W.
Doppler radar retrieval of vertical profiles of cirrus parameters [1994, eng] 48-4088
Orsolini, Y.
GCM study of the late January 1991 "mini-hole" event observed during EASOE [1994, eng] 48-5502
Orth, K.U.
Alpine treeline growth variability [1993, eng] 48-936
Osada, K.
Background levels of formate and other ions in ice cores from inland Greenland [1993, eng] 48-4654
Electrically heatable windshield [1991, eng] 48-1733
Osanai, S.
Preventive measures against pack ice damage to marine resources and fishery facilities [1994, eng] 48-3951
Regional development and the problems of sea ice in Hokkaido [1994, eng] 48-3993
Osborn, A.R.
Icing studies in an aerospace altitude test facility [1991, eng] 48-4736
Osborne, C.
Epiphytic lichens as indicators of snow depth [1994, eng] 48-4375
Osborne, M.D.
Flextrac MPV: a novel concept in a personal all-terrain vehicle [1993, eng] 48-1181
Ice cleat design and testing for tracked military vehicles [1993, eng] 48-1164
Oshida, N.
Study on snow attaching to the TACAN antenna [1994, eng] 48-4215
Oshima, S.
Changes and future prospects for sidewalk snow removal equipment [1988, jpn] 48-557
Osipenko, N.M.
Fracture mechanics in modeling of icebreaking capability of ships [1993, eng] 48-2683
Numerical modeling of the plane static deformation in ice cover [1993, eng] 48-4324
Ship in compressive ice: preliminary model test results [1991, eng] 48-4891
Osipova, E.A.
Mathematical model of concrete temperature deformations during freezing-thawing [1994, eng] 48-3955
Oskomov, V.V.
Snow and soil moisture-reserve measuring device [1992, eng] 48-4072
Ospennikov, E.N.
About an assessment of factors in railway bed stability in the permafrost zone [1994, eng] 48-3399
Østby, G.
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident [1993, eng] 48-4566
Österhus, S.
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin [1992, eng] 48-2904
Instrumented moorings and CTD measurements [1992, eng] 48-2897
Studies through Jutulgryta, Fimbulisen in the 1991/92 season [1992, eng] 48-253
Osterkamp, T.E.
Changing climate and permafrost temperatures in the Alaskan Arctic [1993, eng] 48-499
Solute segregation during soil freezing and solute and heat transport in permafrost [1991, eng] 48-3706
Subsea permafrost occurrence in the Alaskan continental shelf [1993, eng] 48-443
Österlund, R.
Simulation of the effect of wind on clothing by measurements and calculations [1993, eng] 48-4902
Ostiguy, L.
Mathematical model of snowstorm microphysics [1993, eng] 48-2346
Östlund, G.
Transport pattern of Siberian river water in the Arctic basin [1993, eng] 48-4529
Østrem, G.
Glacier mass balance measurements—a manual for field and office work [1969, eng] 48-2917
Glacier mass-balance measurements: a manual for field and office work [1991, eng] 48-312
Glaciers of Norway [1993, eng] 48-4030
Östreng, W.
Northern Sea Route Project: pilot studies report [1991, eng] 48-1779
Ostro, S.J.
Unusual radar echoes from the Greenland ice sheet [1993, eng] 48-538
Ostroumov, V.E.
Ion exchange intensity between soil and snow [1993, eng] 48-444
Seasonal soil freezing and hydrological processes on slopes [1993, eng] 48-2295
Unfrozen water types in frozen soils [1993, eng] 48-2298
O'Sullivan, P.B.
Tectonic dynamics in the Brooks Range, AK [1993, eng] 48-72
Othman, M.A.
Changes in hydraulic conductivity caused by freeze-thaw [1992, eng] 48-1110
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin [1992, eng] 48-1111
Freeze thaw and hydraulic conductivity of compacted clays [1992, eng] 48-1109
Otsuka, T.
Performance tests on winter tires [1986, jpn] 48-19
Oughton, D.
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident [1993, eng] 48-4566
Oura, N.
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines [1993, eng] 48-850
Outcalt, S.I.
Summer thermal regimes in Alaskan permafrost [1993, eng] 48-397

Outcalt, W.
Cold hand patching materials [1993, eng] **48-3282**
Outline of glaciological data categories
Outline of glaciological data categories [1978, eng] **48-2983**
Ovarlez, H.
Stratospheric water vapor content evolution during EASOE [1994, eng] **48-5449**
Ovarlez, J.
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE [1994, eng] **48-5508**
Stratospheric water vapor content evolution during EASOE [1994, eng] **48-5449**
Ovchinnikov, M.V.
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds [1993, rus] **48-2493**
Overland, J.E.
Arctic geostrophic drag coefficients from drift station data [1994, eng] **48-3136**
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing [1993, eng] **48-1326**
Ovsiannikov, M.K.
Experimental investigations of some polar sailing problems [1993, eng] **48-4347**
Owenby, J.R.
Freeze/frost data [1988, eng] **48-4399**
Owens, P.
Sediment yields in small drainage basins in British Columbia [1992, eng] **48-4407**
Oyama, Y.
Forecasting snowmelt volume from remote sensing data [1993, eng] **48-1681**
Ozeki, T.
Investigation of sun crust formation using field data and laboratory experiments (I) [1992, jpn] **48-3203**
Ozeki, Y.
Severe snow loads on mountain afforestation in Japan [1991, eng] **48-3702**
Ozimov, A.E.
Impact loads of drifting ice floes on artificial islands [1993, eng] **48-147**
Øzis, T.
Novel coordinate transformations in boundary value problems [1989, eng] **48-3749**
Ozouf, J.C.
Dilatometry of porous limestones undergoing freezing and thawing [1993, eng] **48-447**
Paasivuori, P.
Effect of electric current on the adhesion of ice to metal piles [1994, eng] **48-3965**
Influence of electric field on the properties of body-ice contact [1993, eng] **48-4320**
Paatero, J.
Migration of plutonium in arctic terrestrial ecosystems [1993, eng] **48-4562**
Pacheco, P.G.
Trace metal solubility in soils and waters receiving deicing salts [1994, eng] **48-4159**
Padki, M.M.
Semi-empirical transient method for modelling frost formation on a flat plate [1993, eng] **48-3200**
Page, R.D.
Method and apparatus for monitoring ice masses [1989, eng] **48-4074**
Pages, J.
Gravity base structure for an offshore platform in arctic regions [1990, eng] **48-2175**
Pahaut, E.
Avalanche forecasting in France [1993, ita] **48-1131**
European scale of avalanche risk [1993, fre] **48-1209**
Paianskaia-Gvozdeva, I.I.
Latitudinal differentiation of vegetation along the Russo-Finnish border [1993, rus] **48-5287**
Paige, D.A.
Modeling the Martian seasonal CO2 cycle, pt.1 [1992, eng] **48-987**
Modeling the Martian seasonal CO2 cycle, pt.2 [1992, eng] **48-988**
Seasonal cycle of carbon dioxide on Mars [1992, eng] **48-5043**
Thermal model for the seasonal nitrogen cycle on Triton [1992, eng] **48-1607**
Painter, K.E.
Concrete durability incorporating domestic fly ash [1994, eng] **48-3783**
Paklin, A.E.
Dumping formation method using alternating layers of rock and ice [1992, eng] **48-5534**
Palais, J.M.
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions [1993, fre] **48-4485**
Palau, C.
Ice overloads and wind at Mt. Capellino, Italy [1986, eng] **48-615**
Palazzo, A.J.
Promoting late-fall establishment of tall fescue with soil covers [1993, eng] **48-3490**
Pallàs, R.
Geomorphology of Cape Shirreff, Livingston I. [1993, spa] **48-4688**
Pallonen, J.
Scatterometer measurements of arctic sea ice at C-band [1993, eng] **48-1701**
Palmentola, G.
New correlation of the glacial moraines in the Southern Apennines, Italy [1990, eng] **48-2102**
Palmer, C.
Ice exposures in rock glaciers [1994, eng] **48-5179**
Palmer, H.D.
Applications of Geographic Information Systems to the analysis of arctic contaminants [1993, eng] **48-4558**
Palmieri, S.
Hundred year trends of Italian air temperature and snow accumulation [1993, ita] **48-4106**
Palonen, J.
Lessons from Indoor Air '93 for cold climate [1994, eng] **48-3843**
Palta, J.P.
Molecular aspects of frost injury in herbaceous plants [1993, eng] **48-1253**
Pan, A.D.
Paleoclimate characteristics in Xinjiang since the late Pleistocene [1993, eng] **48-5230**
Pan, B.T.
Ice wedge significance during Qinghai-Tibetan Plateau glaciation [1994, eng] **48-4260**
Pan, J.Y.
Study on remote sensing models of sea ice thickness by microwave radiometry [1993, eng] **48-3234**
Pan, L.L.
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan [1992, chi] **48-2016**
Pan, W.W.
Note on orbital control of equator-pole heat fluxes [1994, eng] **48-5371**
Panadiali, A.D.
Soil water content regulating procedure [1992, eng] **48-4068**
Panarese, W.C.
Concrete masonry handbook for architects, engineers, builders [1991, eng] **48-2668**
Panchenko, IU.M.
Metal corrosion in various USSR climatic regions [1993, eng] **48-2379**
Panday, S.M.
Simulation of hydrocarbon spills in permafrost [1993, eng] **48-367**
Pande, G.N.
Numerical model for the prediction of surface frost damage to masonry walls [1991, eng] **48-4956**
Pangburn, T.
Joint 50th Eastern and 61st Western Snow Conference, 1993 [1993, eng] **48-2920**
Snowmelt runoff forecasting [1993, eng] **48-685**
Pangher, N.
X-ray analysis of water chemisorbed on metal [1994, eng] **48-4979**
Pangrle, B.J.
Microwave thawing of cylinders [1991, eng] **48-2895**
Papkovskiĭ, B.
Nuclear powered icebreaker "Lenin": its construction [1994, rus] **48-5398**
Paquet, J.R.M.
Under-ice horizontal velocities at Resolute Bay during the SARES experiment [1993, eng] **48-1079**
Paradis, A.
Icing study for a future suspended bridge at Montmorency Falls [1993, eng] **48-2971**
Paren, J.G.
Antarctic Peninsula contribution to future sea level rise [1993, eng] **48-1565**
Parfenov, V.M.
Problems in the use of natural resources in the taiga zone [1989, rus] **48-900**
Questions on the melioration of taiga soils in the Transural [1989, rus] **48-907**
Parish, T.R.
Numerical simulation of West Antarctic katabatic winds [1994, eng] **48-5309**
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime [1993, eng] **48-193**
Simulation of the modern arctic climate by the NCAR CCM1 [1994, eng] **48-5132**
Park, K.M.
Hexagonal ice molecules intercalated between molecular metals [1993, eng] **48-1612**
Park, Y.J.
Influence of below-freezing temperatures on the shear behavior of wet rock joints [1992, eng] **48-3528**
Parker, B.C.
Solar flares in antarctic ice cores [1993, eng] **48-3940**
Parker, L.V.
Casing materials for ground water monitoring wells [1994, eng] **48-5413**
Effects of groundwater samplers on water quality: a literature review [1993, eng] **48-2608**
Modeling organic contaminant partitioning in groundwater [1994, eng] **48-4953**
Parker, M.N.
Polar lows in the Beaufort Sea [1988, eng] **48-4132**
Parker, N.
Impacts on the Yukon and the Mackenzie Valley [1992, eng] **48-2038**
Parker, T.J., III
Traction device for different size tires [1989, eng] **48-4077**
Parkinson, C.L.
Dangers of multiyear averaging in analyses of long-term climate trends [1989, eng] **48-2362**
Exploring the southern ocean response to climate change. Final report [1993, eng] **48-3817**
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes [1988, eng] **48-1657**
Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange [1988, eng] **48-1658**
Parkinson, D.
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil [1978, eng] **48-3410**
Parol, F.
Modeling of cirrus bidirectional reflectances [1993, eng] **48-2988**
Parpola, M.
Pre-oiling system during cold-start of SI engine [1994, eng] **48-3087**
Parriaux, A.
Chemical composition of snow cover on the western Swiss Alps [1990, eng] **48-1594**
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps [1990, fre] **48-1591**
Parrot, J.F.
Surface state of subpolar glaciers from satellite data [1991, fre] **48-3713**
Parsons, A.N.
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change [1994, eng] **48-5019**
Parsons, A.R.
Ambient noise characteristics of the northwestern Barents Sea [1993, eng] **48-2815**
Parsons, B.L.
Size effect in the flexural strength of ice [1994, eng] **48-3015**
Parungo, F.
Particle analyses of arctic aerosol samples [1993, eng] **48-3895**
Paruvakat, N.
Effects of freezing on hydraulic conductivity of compacted clay—discussion [1993, eng] **48-1785**
Pascheto, W.
Intergranular liquid in solids and premelting of ice [1994, eng] **48-3338**
Pasetskiĭ, V.M.
Russian discoveries and investigations in the Arctic: first half of the 19th century [1984, rus] **48-1265**
Pasuto, A.
Example of a low-temperature-triggered landslide [1993, eng] **48-3192**
Pasynkov, V.V.
Investigation of sea ice interaction with SHF-electromagnetic field [1993, eng] **48-1903**
Pataki, L.
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system [1993, eng] **48-1837**
Patel, V.C.
Laboratory study of flow in ice-covered, dune-bed channels [1992, eng] **48-1543**
Numerical model of flow in channels with sand-dune beds and ice covers [1993, eng] **48-1137**
Paterne, M.
North Atlantic sea surface salinity, ice melting and abrupt climatic changes [1993, eng] **48-4208**
Paterson, D.
Did Tibet cool the world [1993, eng] **48-1890**
Paterson, W.S.B.
World sea level and the present mass balance of the antarctic ice sheet [1993, eng] **48-4185**
Patnoe, M.W.
Snowstorms over the Puget Sound lowlands [1993, eng] **48-2359**
Patten, R.S.
Influence of snow avalanches on mountain vegetation patterns [1994, eng] **48-3505**
Pattyn, F.
Ice dynamics in the Sør Rondane Mountains [1993, eng] **48-2141**
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica [1993, eng] **48-1298**
Patzelt, G.
Austrian alpine glacier measurements 1990 [1991, ger] **48-3662**
Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley [1977, ger] **48-3313**
Statistics of the measurements of length of Austrian glaciers, 1960-1975 [1977, ger] **48-3314**

Paul, L.E.
Geological, geochemical, and operational summary, Aurora Well [1994, eng] **48-3329**
Paul, P.R.
Snowmelt runoff forecasting studies in Himalayan basins [1993, eng] **48-2775**
Paulsen, K.D.
H-polarized scattering from single and multiple elongated cavities [1993, eng] **48-2058**
Pauly, T.J.
Acoustic detection of ice crystals in antarctic waters [1994, eng] **48-5006**
Pavich, M.J.
Paleomagnetic and Be-10 dating of glaciofluvial terraces [1993, eng] **48-1499**
Pavlidis, IU.A.
Problems of the geomorphology of glaciated shelves [1993, eng] **48-2539**
Scale of the last glaciation in the arctic basin [1992, eng] **48-2605**
Pavlov, A.R.
Mathematical model of concrete temperature deformations during freezing-thawing [1994, eng] **48-3955**
Pavlov, A.S.
Specificity of the phase transformations in the cryogenic saline sandy soils [1993, eng] **48-2300**
Pavlov, A.V.
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate [1993, eng] **48-2290**
Preliminary engineering-geocryological investigations in the oil and gas bearing regions [1994, eng] **48-3401**
Quantitative estimation of mass transfer in landscape complexes of northern Russia [1993, eng] **48-445**
Status and direction of the development of an observation network for geocryological monitoring [1992, rus] **48-4794**
Pavlov, I.V.
Acoustic inspection of thawing building foundations [1993, eng] **48-1916**
Pavlova, L.G.
New data on radionuclide content in the Barents Sea and on the shore [1994, eng] **48-4277**
Quaternary geology of the shelf areas surrounding Franz Josef Land [1994, eng] **48-5639**
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea [1993, eng] **48-2747**
Pawlowicz, R.
Sea ice cover effect on sound wave propagation times [1993, eng] **48-45**
Payette, S.
Growth of black spruce at its northern range limit in arctic Quebec, Canada [1994, eng] **48-4377**
Holocene dynamics of jack pine at its northern range limit in Quebec [1993, eng] **48-2765**
Holocene vegetation history in a Québec forest [1993, eng] **48-2076**
Origin and significance of subarctic patchy podzolic soils and paleosols [1993, eng] **48-2414**
Stem analysis of a long-lived black spruce clone at treeline [1994, eng] **48-3508**
Pazmany, A.
95-GHz polarimetric radar measurements of orographic cap clouds [1994, eng] **48-2885**
Peabody, A.B.
Snow loads on transmission and distribution lines in Alaska [1993, eng] **48-842**
Pearson, L.
Oil and hazardous substance contingency plan for Alaska [1993, eng] **48-3717**
Pease, C.H.
Vessel icing in Alaskan waters—1979 to 1984 data set [1985, eng] **48-1143**
Pech, P.
Stone bank stratification in an alpine environment [1993, fre] **48-1149**
Peck, L.
Cold regions performance of optical-fiber and pulsed near-infrared intrusion detection systems [1994, eng] **48-1542**
Fence-mounted intrusion detection systems [1993, eng] **48-1093**
Thermal variation in vegetated or snow-covered background scenes and its effect on passive infrared systems [1993, eng] **48-2535**
Pedersen, K.
Alternative de-icing agents for bridges and airports [1991, dan] **48-4133**
Pedersen, L.T.
Multi-year sea ice mapping by thermal infrared radiometry [1994, eng] **48-4472**
Pedersen, T.S.
Polar lows over the northeast Greenland Sea [1991, eng] **48-4725**
Peel, D.A.
Antarctic Peninsula contribution to future sea level rise [1993, eng] **48-1565**
Glaciological observations on Antarctic Peninsula [1992, eng] **48-2618**
Spatial temperature and accumulation rate variations in the Antarctic Peninsula [1992, eng] **48-781**
Pekkarinen, A.
Safety in the use of four-wheeled all-terrain vehicles in Finland [1992, eng] **48-4966**
Pelfini, M.
Century of glacier fluctuations in the Lombardy Alps (Italy) [1993, ita] **48-4107**
Pell, K.
Investigation of forces incurred during snow plowing [1993, eng] **48-1170**
Pelletier, E.
Simulation of oil biodegradation under an ice cover [1986, eng] **48-4171**
Pelletier, É.
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater [1993, eng] **48-3716**
Pelletier, R.G.
Erodibility of frozen soil in eastern Canada [1992, eng] **48-2366**
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget [1993, eng] **48-3141**
Peltier, W.R.
Climatic implications of Pleistocene ice volume fluctuations [1991, eng] **48-5319**
Effect of altered climatic variables on ice sheet reconstruction [1993, eng] **48-947**
Ice age paleotopography [1994, eng] **48-5106**
Proceedings [1993, eng] **48-4177**
Peng, C.
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum [1993, eng] **48-3560**
Peng, C.Y.
Ocean-ice interaction in the marginal ice zone [1994, eng] **48-3458**
Peng, G.B.
Air temperature in China and the arctic sea ice extent [1993, chi] **48-4586**
Peng, S.W.
Coupled heat and mass transfer during freeze drying processes [1994, eng] **48-3318**
Peng, T.H.
Possible effects of ozone depletion on the global carbon cycle [1992, eng] **48-1885**
What caused the glacial to interglacial CO_2 change [1991, eng] **48-4758**
Peng, W.W.
Determining strength of frozen soil with radial-split method [1992, chi] **48-1418**
Primary research of determining strength of frozen soil with axial-split method [1993, chi] **48-1446**
Penhale, P.A.
Ultraviolet radiation in Antarctica: measurements and biological effects [1994, eng] **48-4379**
Penkett, S.A.
Measurements of hydrocarbons in polar maritime air masses [1993, eng] **48-3054**
Penniman, D.
Avalanche control technology: a growing industry in France [1990, eng] **48-2361**
Penrose, J.D.
Acoustic detection of ice crystals in antarctic waters [1994, eng] **48-5006**
Perälä, J.
Application of ERS-1 active microwave instrumentation data to remote sensing of snow [1992, eng] **48-2066**
Perchanok, M.S.
Cost analysis of snow control structures in Ontario [1993, eng] **48-2965**
Effectiveness of calcium magnesium acetate deicer [1992, eng] **48-3069**
Highway de-icers: standards, practice and research in the Province of Ontario [1991, eng] **48-3068**
Investigation of material and geometric characteristics of highway snow fence [1993, eng] **48-4005**
Percival, D.B.
SAR backscatter from sea ice [1993, eng] **48-4156**
Percival, P.W.
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures [1992, eng] **48-5032**
Pereira, E.B.
Transport of radon between South America and the Antarctic Peninsula [1993, eng] **48-4539**
Perepelitsa, A.N.
Experimental study of ice-cylindrical pile interaction [1993, eng] **48-4317**
Perestenko, L.P.
Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands [1993, rus] **48-5274**
Peretti, G.
Winter testing for permafrost identification [1993, ita] **48-1133**
Pérez, F.L.
Talus movement in the high equatorial Andes: a synthesis of ten years of data [1993, eng] **48-5048**
Perfect, E.
Time delay in the water-ice phase change during soil freezing [1993, eng] **48-887**
Performance in Ice-Covered Waters Committee
Model facilities for ice-covered water testing [1993, eng] **48-4158**
Perissinotto, R.
Phytoplankton production and biomass in South Atlantic Ocean frontal zones [1993, eng] **48-918**
Perkins, D.E.
Dual-band infrared imaging for mapping sea ice [1992, eng] **48-4760**
Perkins, H.
Amplification of tidal currents by overflow on the Iceland- Faeroe Ridge [1994, eng] **48-3944**
Large-scale structure of the Iceland-Faeroe Front [1992, eng] **48-1780**
Perkins, T.D.
Assessing cold tolerance in *Picea* using chlorophyll fluorescence [1993, eng] **48-133**
Perl'shtein, G.Z.
Complex technology for preparation of perennially frozen placers to dredging [1993, eng] **48-525**
Permiakov, P.P.
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water [1992, rus] **48-4783**
Perner, D.
Airborne spectroscopy of polar stratospheric chemical properties [1994, eng] **48-5480**
Ground-based measurements of Greenland stratospheric chemistry [1994, eng] **48-5481**
Perova, N.V.
Lower plant resources of Siberia and their use [1994, eng] **48-2480**
Perovich, D.K.
Light reflection from sea ice during the onset of melt [1994, eng] **48-3197**
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. [1993, eng] **48-1310**
Theoretical model of ultraviolet light transmission through antarctic sea ice [1993, eng] **48-3005**
Perron, F.E.
Observations on machine-made snow as a millimeter-wave obscurant [1993, eng] **48-3031**
Perry, H.F.
Ice spikes—can you explain them [1993, eng] **48-316**
Pershina, T.A.
Investigation of crystallization of charged, supercooled water fog [1993, eng] **48-71**
Persson, S.
Ice adhesion to rubber materials [1994, eng] **48-4252**
Pertziger, F.I.
Role of glacier and snow cover melting in runoff variations [1990, eng] **48-1582**
Pesegov, V.G.
Heterotrophic bacteria in the coastal zone of the Barents Sea [1991, rus] **48-2528**
Peter, T.
Acidic stabilization of arctic stratospheric ice particles [1994, eng] **48-5472**
Balloon-borne observations of arctic stratospheric ice particles [1994, eng] **48-5471**
Freezing of stratospheric aerosol droplets [1994, eng] **48-5499**
Stratospheric ozone layer—an overview [1994, eng] **48-2745**
Peters, N.E.
Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado [1993, eng] **48-2962**
Petersen, J.D.
Negatively buoyant jet/plume with applications to snow plow exit flow behavior [1993, eng] **48-1173**
Peterson, A.A.
Rotorcraft aviation icing research requirements: research review and recommendations [1981, eng] **48-1145**
Peterson, D.
Snowplow truckcab ergonomics task force report [1993, eng] **48-4901**
Peterson, D.L.
Changes in North American subalpine tree distribution [1994, eng] **48-4944**
Peterson, G.E.
Mobile fog dispersion with liquid carbon dioxide. Final report [1993, eng] **48-3065**
Peterson, I.K.
Variability in ice cover along Canada's east coast for 1962-1992 [1994, eng] **48-5574**
Peterson, K.M.
Possible effects of climatic warming on arctic tundra ecosystems [1992, eng] **48-1262**
Peterson, M.
Proposed artificial river ice damming to induce flooding of a delta ecosystem [1993, eng] **48-2961**
Petersons, G.
Recovering heat in manufacturing facilities with energy capacious technology [1994, eng] **48-3854**
Petit, B.
Sea ice and circulation in the Weddell Sea [1993, eng] **48-2142**
Petit, J.R.
Debris entrainment at an antarctic glacier bed [1993, eng] **48-2393**
Petrenko, V.F.
Effect of static electric fields on ice friction [1994, eng] **48-4969**
Electrical properties of ice [1993, eng] **48-1000**

Electron energy spectrum of ice [1993, eng] 48-1215
On the nature of photo charge carriers in ice [1994, eng] 48-4925
Photoplastic effect on ice [1994, eng] 48-4812
Structure of ordinary ice Ih. Part 1: ideal structure of ice [1993, eng] 48-2534
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects [1994, eng] 48-5147

Petrescu, V.
Influence of the bar shape of a trash rack on the ice particle trajectory [1994, eng] 48-3970
Protection against ice and sediment at water intakes [1994, eng] 48-5550

Petrov, B.G.
Method of forming soil base on frozen ground [1992, eng] 48-5512

Petrov, E.E.
Coefficients of linear expansion of freezing soils [1993, eng] 48-70
Mechanical properties of frozen rock in a two-phase model [1994, eng] 48-4837

Petrov, N.A.
Problems of power and transport industries in the Asian polar regions of Russia [1994, eng] 48-3949

Petrov, O.
Environmental and sanitation problems related to radioactive waste dumping into the arctic seas [1993, eng] 48-4520

Petrov, Z.E.
Automation of field tests of pipes and high pressure vessels and prospects for its development [1990, rus] 48-53

Petrova, N.V.
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation [1992, rus] 48-2120

Petrovskii, V.V.
Flora of the lower reaches of the Yana River (Northern Yakutia) [1992, rus] 48-1628

Petrukhin, B.P.
Electric geophysical exploration by resistance methods during investigations into frozen rocks [1991, rus] 48-1389

Pettersen, T.D.
Variation of energy consumption in dwellings due to climate, building and inhabitants [1994, eng] 48-3871

Pettit, M.
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene [1993, eng] 48-4287

Pettitt, B.M.
Water phase transition at excess chemical potential [1994, eng] 48-4646

Pettré, P.
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime [1993, eng] 48-193

Petzoldt, K.
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems [1994, eng] 48-5441

Peuraniemi, V.
Glacial dispersal of till constituents in morainic landforms of different types [1992, eng] 48-2516

Pezard, J.
Method to estimate icing loads on overhead lines [1993, eng] 48-831

Pfaff, J.
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone [1993, eng] 48-592

Pfefferle, W.C.
Diesel engine cold starting with catalytically ignited recirculated exhaust gas [1994, eng] 48-3092

Pfeiffer, E.M.
Delta^{13}C-analysis of permafrost soil samples of NE- Siberia [1993, eng] 48-2304

Pfeiffer, K.D.
Marine information systems as key-tools in port and ocean engineering in polar regions [1993, eng] 48-161

Pfeilsticker, K.
Airborne measurements of arctic stratospheric ozone [1994, eng] 48-5483

Pham, T.
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center [1991, eng] 48-4732

Phetteplace, G.
Field measurement of heat losses from hot water district heating systems [1993, eng] 48-2068
Heat losses from operating hot water district heating systems [1993, eng] 48-2069

Piacsek, S.
Diagnostic modelling studies of the Iceland-Faeroe front [1993, eng] 48-3751

Piber, H.
Twenty-year-old test road with an EPS-concrete base in Austria [1992, eng] 48-2112

Piccardi, G.
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica) [1994, eng] 48-5031

Pichel, W.
Coastwatch SAR applications demonstration—development phase [1994, eng] 48-3472
Great Lakes SAR ice research applications demonstration [1994, eng] 48-3473

Pichler, H.
Proceedings [1986, eng] 48-608

Picu, R.C.
Crack nucleation in polycrystalline columnar ice due to anisotropic grains [1994, eng] 48-5585
Crack nucleation mechanism in saline ice [1994, eng] 48-4567

Pierret, J.M.
Windscreen deicing system for vehicle [1990, eng] 48-4421

Pigeon, M.
High performance air entrained concrete for a bridge in Quebec [1993, eng] 48-2657

Pignatelli, O.
Dendrochronology and glacier variations in the Italian Alps [1993, ita] 48-4095

Pildysh, M.
Insulation of buried water lines in cold regions [1994, eng] 48-3378

Pilewskie, P.
Discrimination of ice from water in clouds by optical remote sensing [1987, eng] 48-2087
Optical depths and haze particle sizes during AGASP III [1993, eng] 48-3901

Pilon, J.A.
Quaternary geology and geocryology in Nunavik, Canada [1993, eng] 48-350

Ping, C.L.
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993 [1993, eng] 48-2497
New techniques in studying humic substances in permafrost soils [1993, eng] 48-2305
Redoximorphic features in permafrost soils [1993, eng] 48-2296
Soil classification and climatic zones of Alaska [1993, eng] 48-446
Warm permafrost soils of interior Alaska [1993, eng] 48-2282

Ping, H.
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures [1992, eng] 48-5032
Dynamic elastic modulus and strength of saturated frozen silt [1993, eng] 48-395

Pinglot, J.F.
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica [1993, eng] 48-4535
Glacier mass balance estimated by radioactive layers [1994, eng] 48-5173
Ice core drilling on Mont Blanc [1994, eng] 48-2713
Natural and artificial radioactivities in the Svalbard glaciers [1993, eng] 48-4550

Pinnich, R.G.
Absorption and scattering of microwaves by falling snow [1993, eng] 48-2004

Pinto, J.P.
Modeling of antarctic ozone hole dynamics [1994, eng] 48-3037

Piquard, J.
Observations of the vertical distribution of stratospheric OClO [1994, eng] 48-5448
Ozone distribution from UV-visible solar occultation [1994, eng] 48-5447

Pirożbujow, E.
Pedological changes at the edge of a Spitsbergen glacier [1992, eng] 48-2432

Pisarevskaia, L.G.
Ice conditions [1992, eng] 48-2909
Variability in the hydrophysical fields near drifting icebergs and safe navigation [1993, rus] 48-1904

Pisarski, N.
Electro-repulsive separation system for deicing [1989, eng] 48-1875

Pissart, A.
Dilatometry of porous limestones undergoing freezing and thawing [1993, eng] 48-447

Pitari, G.
Effects of aircraft exhaust on polar atmospheric chemistry [1993, eng] 48-2477

Pittenger, A.
Glacigenic sediments related to the glacial history of Prydz Bay [1991, eng] 48-3631

Pitter, R.L.
Ice crystal detection in Sierra Nevada orographic storms [1993, eng] 48-2368
Ice crystal formation in cloud seeding processes [1993, eng] 48-1742
Oxidation-reduction reactions in growing ice crystals, comment and reply [1991, eng] 48-778
Studies of cubic ice crystals [1991, eng] 48-4755

Pitts, M.C.
Polar stratospheric cloud climatology from 1978-89 [1994, eng] 48-4700

Piven', E.N.
Flow rate of rivers on the northern slope of Ketmen' Ridge during the vegetation period in the flood [1992, rus] 48-4468

Plantier, J.L.
Vault structure for protection of roadways against snow [1989, eng] 48-4076

Platt, U.
Airborne measurements of arctic stratospheric ozone [1994, eng] 48-5483
Spectroscopic measurement BrO in the arctic troposphere [1992, eng] 48-2636
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert [1993, eng] 48-3055

Plazinić, S.
Damages to overhead lines from ice accretions in Serbia [1993, eng] 48-841

Pletan, R.A.
New way to beat snow and ice [1994, eng] 48-5303
Winter maintenance in Minnesota today and tomorrow [1993, eng] 48-1207

Plieva, T.V.
Flora of the Losyanka River valley (Western Chukotka) [1993, rus] 48-1642

Pliusnin, V.M.
Landscape ecological features of the subarctic mountain zone of Transbaikalia [1993, eng] 48-3801

Plumb, R.A.
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992 [1994, eng] 48-4595

Plüss, C.
Role of turbulent heat fluxes in the energy balance of high alpine snow cover [1994, eng] 48-4707

Pochodylo, K.
Cell-free and whole cell ice nucleators and process for their production [1993, eng] 48-1282

Podgornii, I.A.
Probable deep winter convection in Fram Strait [1992, eng] 48-1767

Podobedov, V.V.
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea [1993, eng] 48-2747

Podolske, J.R.
Laser spectrometer for stratospheric trace gas measurement [1993, eng] 48-2407
Polar atmosphere nitrous oxide morphology during AASE II [1993, eng] 48-2583

Podsechina, T.V.
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States [1992, rus] 48-1952

Poellot, M.R.
Role of ice crystals in cirrus radiative properties [1994, eng] 48-4600

Pohjola, J.
Apparatus in a turning-track track-laying vehicle [1990, eng] 48-2172

Pohjola, V.A.
TV-video observation of englacial voids in Storglaciären, Sweden [1994, eng] 48-5160

Pohlman, J.C.
Microscale meteorological causes of power line failure [1993, eng] 48-834
Proposed field deployment program for monitoring icing events [1993, eng] 48-835

Pokhrel, A.P.
Measuring service for snow and glacier hydrology in Nepal [1993, eng] 48-2767

Pokrashenko, S.A.
Use of numerical methods in ice conditions examination [1993, eng] 48-1090

***Polar-Circle*, icebreaker for polar cruises and research**
Polar-Circle, icebreaker for polar cruises and research [1991, fre] 48-3306

Poliakov, V.A.
Isotopic and chemical composition of ground ice in West Siberia [1993, eng] 48-523

Poliakova, K.N.
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States [1992, rus] 48-1952

Polissar, A.V.
Arctic aerosol molecular composition from measurements on Wrangel Island [1993, eng] 48-1755

Politovich, M.K.
Aircraft icing caused by large supercooled droplets [1989, eng] 48-3064

Pollack, H.N.
Underground records of changing climate [1993, eng] 48-1936

Pollack, J.B.
Ice cloud formation in the Martian atmosphere [1993, eng] 48-1617
Voyager imaging of Triton's clouds and hazes [1992, eng] 48-1608

Pollack, K.D.
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center [1991, eng] 48-4732

Pollard, G.
Ice management in high latitude scientific ocean drilling [1994, eng] 48-3987
Polomoshnov, A.M.
Sea ice strength variability due to various ice column axis orientation [1993, eng] 48-4337
Selection of standard level for sea ice strength [1993, eng] 48-1036
Polosukhina, Z.M.
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones [1992, rus] 48-1398
Pomeroy, J.W.
Geometry of patchy snowcovers [1993, eng] 48-2932
Impact of heterogeneous flow paths on snowmelt runoff chemistry [1993, eng] 48-2949
Relocation of major ions in snow along the tundra-taiga ecotone [1993, eng] 48-1155
Snow-atmosphere interactions in arctic snowpacks [1993, eng] 48-2952
Temporal variation in snowcover area during melt in prairie and alpine environments [1993 eng] 48-1157
Use of fractal geometry in modelling intercepted snow accumulation and sublimation [1993, eng] 48-2921
Pommereau, J.P.
Observations of the vertical distribution of stratospheric OClO [1994, eng] 48-5448
Ozone distribution from UV-visible solar occultation [1994, eng] 48-5447
Polar stratospheric cloud spectrometry in the Arctic [1994, eng] 48-5469
Preliminary results of the European arctic campaign [1993, eng] 48-3731
Pongsawatmanit, R.
Measurement of temperature-dependent ice fraction in frozen foods [1993, eng] 48-3625
Ponomarev, M.B.
Automated system of short term forecasts of the development, growth and breakup of ice cover and its practical application [1992, rus] 48-1950
Ponomarev, V.N.
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States [1992, rus] 48-1954
Pons, A.
Breaking capacity of SF6 circuit-breakers at low temperatures [1993, eng] 48-1828
Pontynen, E.
Method and equipment for maintaining ice-free locks [1993, eng] 48-1656
Pöntynen, H.
Performance of ice-navigating vessels in the northern Baltic in winter 1992 [1992, eng] 48-2133
Poole, D.A.R.
Barents Sea sedimentation dynamics and paleoenvironment [1994, eng] 48-4986
Poole, L.R.
Major results from SAGE II [1993, eng] 48-3732
Polar stratospheric cloud climatology from 1978-89 [1994, eng] 48-4700
Stratospheric aerosols used to predict antarctic vortices [1993, eng] 48-2473
Poole, P.H.
Phase diagram for amorphous solid water [1993, eng] 48-2523
Poots, G.
Aerodynamic torque in snow accretion on transmission lines [1993, eng] 48-819
Effect of density variations during rime growth on overhead transmission line conductors [1994, eng] 48-5109
Effect of density variations in models of rime ice accretion on overhead line conductors [1993, eng] 48-820
Ice load measurements for accreted ice on power lines [1993, eng] 48-2022
Ice load measurements on overhead line conductors [1993, eng] 48-827
Snow accretion on horizontal rotating conductor rods [1994, eng] 48-5060
Pope, P.G.
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula [1991, eng] 48-4245
Pope, S.K.
Clouds of ammonia ice: laboratory measurements of the single- scattering properties [1992, eng] 48-992
Popjoy, M.A.
Development of a temperature compensated gas lift cylinder [1994, eng] 48-3093
Popov, F.S.
Systems of earth dam freezing with forced circulation of a coolant [1994, eng] 48-3959
Popov, S.N.
Tribology of frost-resistant antifriction materials [1994, eng] 48-3980
Popov, V.A.
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia [1992, rus] 48-4788
Gas pipeline Mastakh-Yakutsk and environment [1993, eng] 48-409
Survey of a gas pipeline laid on parts of developed ice wedges [1992, rus] 48-4789
Popov, V.V.
Mining machines serviceability under cold climate conditions [1994, eng] 48-3985
Popova, E.P.
Soil cover of the southern taiga in Central Siberia [1992, rus] 48-4149
Porco, R.L.
Synthetic dense media fabrication with application to sea ice [1993, eng] 48-1696
Porcú, F.
2D and 3D modelling of ice accretion on wires [1993, eng] 48-818
Porebska, M.
Frost action in a hydrophobic material [1993, eng] 48-4934
Portenier, N.N.
Geographical analysis of flora of the Cherek Bezengiyskiy River basin (Central Caucasus) [1993, rus] 48-5280
Geographical analysis of the flora in the Cherek Bezengiiskii River basin (Central Caucasus). Part I [1993, rus] 48-4275
Posch, M.
Finnish model for runoff and erosion prediction [1993, eng] 48-2674
Posey, P.G.
Monthly mean sea ice data from ice prediction models [1991, eng] 48-4731
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center [1991, eng] 48-4732
Pospichal, J.J.
Sediment descriptions, Bransfield Strait 1986-1987 [1993, eng] 48-3816
Potapczuk, M.G.
Anti-icing system results on a NASA 0012 airfoil [1993, eng] 48-4883
Ice accretion and performance degradation calculations with LEWICE/NS [1993, eng] 48-4884
Ice shape and performance for a multi-element airfoil [1991, eng] 48-4859
Potapov, A.I.
Acoustic inspection of thawing building foundations [1993, eng] 48-1916
Potapov, V.M.
Floating semi-submersible drilling rig "Sever" [1992, rus] 48-747
Potapova, M.G.
Composition and distribution of attached algal communities in small rivers of the Upper Kolyma River basin [1992, rus] 48-1624
Potemkin, A.D.
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago) [1993, rus] 48-1632
Pougatch, E.
Experimental investigation of optical snow properties [1993, eng] 48-1336
Poulikakos, D.
Freezing of a water-saturated inclined packed bed of beads [1993, eng] 48-602
Solidification of a binary mixture saturating an inclined bed of packed spheres [1993, eng] 48-2455
Pourchet, M.
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica [1993, eng] 48-4535
Glacier mass balance estimated by radioactive layers [1994, eng] 48-5173
Ice core drilling on Mont Blanc [1994, eng] 48-2713
Powell, B.M.
Lattice dynamics of clathrate hydrates [1993, eng] 48-2350
Powell, D.R.
Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. [1993, jpn] 48-1965
Powell, J.A.
Radioluminescent lights score high in VFR night air taxi tests [1987, eng] 48-4134
Powell, W.S.
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska [1994, eng] 48-3390
Power, S.B.
Arctic sea ice anomalies and the interdecadal climate cycle [1992, eng] 48-299
Powers, R.B.
Petroleum exploration plays in Alaska, 1989 [1993, eng] 48-4045
Poznanin, V.L.
Analysis of permafrost solifluction stages [1993, eng] 48-474
Poznyak, V.I.
Depth of penetration in antarctic firn at 10 GHz [1993, eng] 48-2110
Pozolotina, V.
Radioactive contamination of topsoil in the lower reaches of Techa River in the Urals [1993, eng] 48-4527
Pragnell, R.F.
Dew and frost formation on the condensation dewpoint hygrometer [1993, eng] 48-1895
Prasad, A.
Freezing in a laminar region of a parallel plate duct [1993, eng] 48-862
Thermal design for annular shaped phase-change storage systems [1993, eng] 48-893
Prasad, P.
Thermal design for annular shaped phase-change storage systems [1993, eng] 48-893
Prasad, T.
Snowmelt runoff simulation models and their suitability in Himalayan conditions [1993, eng] 48-2788
Prata, A.J.
Satellite infrared analysis of cloud optical depth [1993, eng] 48-2762
Prather, M.J.
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone [1993, eng] 48-592
Prazuck, C.
Anomalous diurnal currents in the vicinity of the Yermak Plateau [1991, eng] 48-4728
Preller, R.H.
Arctic sea ice-climate system: observations and modeling [1993, eng] 48-2507
Monthly mean sea ice data from ice prediction models [1991, eng] 48-4731
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center [1991, eng] 48-4732
Prentice, M.J.
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica [1992, eng] 48-2624
Prentice, M.L.
Early Pliocene climate and ice-sheet modeling [1992, eng] 48-2617
Late Neogene antarctic glacial history: evidence from central Wright Valley [1993, eng] 48-3293
Press, M.C.
Transpiration of sub-arctic parasitic angiosperms [1994, eng] 48-5419
Pressman, A.
Synthetic aperture radar imagery for operational ice analysis [1991, eng] 48-4737
Pressnail, K.D.
Creep of piles in frozen sand [1991, eng] 48-1461
Preston, D.
Drilling options for the Cape Roberts Project [1992, eng] 48-2321
Preusker, R.
Adaptor disk for attaching an anti-skid device to a wheel disk or rim [1990, eng] 48-2201
Preusker, W.
Adaptor disk for attaching an anti-skid device to a wheel disk or rim [1990, eng] 48-2201
Prével, B.
Glassy state formation of aqueous solutions [1994, eng] 48-5384
Prézelin, B.B.
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90 [1994, eng] 48-4387
Price, E.T.
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment [1993, eng] 48-2970
Price, J.D.
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields [1994, eng] 48-5506
Price, R.A.
Assessment of white phosphorus storage in wetlands within artillery impact areas [1993, eng] 48-3033
Prick, A.
Dilatometry of porous limestones undergoing freezing and thawing [1993, eng] 48-447
Priestman, G.H.
Portable device for the simulation of air frosts at remote field locations [1993, eng] 48-2468
Prilepskii, N.G.
Problem of taiga origin. History of the subject [1993, rus] 48-5272
Prince, D.S.
Performance and factors affecting performance of lagoons in cold regions [1994, eng] 48-3382
Prinsenberg, S.J.
Electromagnetic ice thickness sensor for marginal ice zone [1993, eng] 48-178
Intercomparison of ERS-1 SAR, airborne SLAR and electro-magnetic ice-thickness data [1994, eng] 48-3456
Variability in ice cover along Canada's east coast for 1962-1992 [1994, eng] 48-5574
Prior, A.
Arctic survival equipment testing and analysis [1992, eng] 48-5105
Personal Arctic Survival Kit (PASK) field trials [1992, eng] 48-5104
Prock, S.
Alpine seed bank size estimations in subarctic ecosystems [1993, eng] 48-937
Prodanovic, A.
Computation of sheet ice and ridge ice forces on a faceted cone [1993, eng] 48-152
Dynamic activity in medium-scale ice indentation tests [1994, eng] 48-3829
Splitting of ice floes [1993, eng] 48-88

AUTHOR INDEX

Prodi, F.
2D and 3D modelling of ice accretion on wires [1993, eng] **48-818**
Prokhorova, T.M.
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States [1992, rus] **48-1954**
Prokopets, V.S.
Mixture for construction of car-road base [1992, eng] **48-4428**
Proniaev, V.P.
Ice block forming device, using heat carrier stream cutting [1992, eng] **48-5511**
Propulsion plant of the *James Clark Ross*
Propulsion plant of the *James Clark Ross* [1991, eng] **48-3615**
Proshutinskiĭ, A.IU.
Diurnal tides in the Arctic Ocean [1993, eng] **48-979**
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin [1992, eng] **48-2904**
Ocean-ice interactions [1992, eng] **48-2900**
Prospective Canadian High Arctic awaits higher oil & gas prices
Prospective Canadian High Arctic awaits higher oil & gas prices [1993, eng] **48-1018**
Proud, J.J.
Measuring ice sheet changes with the ERS-1 altimeter [1994, eng] **48-3436**
Proulx, S.
Forest floor frost dynamics during spring snowmelt in a boreal forested basin [1994, eng] **48-4449**
Prowse, T.D.
Estimating evaporation in a subarctic watershed [1993, eng] **48-1152**
Proposed artificial river ice damming to induce flooding of a delta ecosystem [1993, eng] **48-2961**
Runoff generation in a high boreal wetland in northern Canada [1993, eng] **48-1159**
Strength variability of major river-ice types [1993, eng] **48-1156**
Environmental aspects of river ice [1993, eng] **48-215**
Pruzan, D.A.
Capacitive ice detector for aircraft [1993, eng] **48-2638**
Pruzan, P.
Pressure effects on the hydrogen bond in ice up to 80 GPa [1994, eng] **48-5385**
Proton stability of high pressure ice at low temperature [1993, eng] **48-2092**
Pshenichnikova, E.S.
Procedure for predicting settlements of thawing bases for engineering calculations [1994, eng] **48-2805**
Pu, Y.B.
Introduction of application methods for CT in frozen soil experimental research [1993, eng] **48-5231**
Introduction of applying method for CT in frozen soil experiment research [1993, chi] **48-1459**
Pudsey, C.J.
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea [1992, eng] **48-5094**
Pudykiewicz, J.A.
On computer simulation of atmospheric transport of radioactive tracers to the arctic ecosystem [1993, eng] **48-4559**
Pueschel, R.F.
International workshop on stratospheric aerosols: measurements, properties, and effects [1991, eng] **48-3680**
Punkki, J.
Crushed lightweight aggregate in concrete [1992, eng] **48-2067**
Punning, J.M.
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics [1993, eng] **48-3610**
Pupacko, A.
Variations in northern Sierra Nevada streamflow: implications of climate change [1993, eng] **48-65**
Pustovoit, G.P.
Global warming effects on structures built on permafrost soils [1993, eng] **48-1756**
Mathematical modeling of the dynamics of permafrost thickness given a filtering layer [1992, rus] **48-1390**
Puswewala, U.G.A.
Computational modelling of structure-frozen soil/ice interaction [1991, eng] **48-803**
Putilina, N.M.
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years [1992, rus] **48-4470**
Putin, O.
Icebreaker, tug, rescuer [1992, rus] **48-3794**
Puxbaum, H.
Alpine atmospheric composition and aerosol sampling techniques [1994, eng] **48-5138**
Cloudwater droplet chemistry of Mt. Sonnblick, Austria [1994, eng] **48-4805**
Pyle, J.A.
Case study in forecasting the stratospheric vortex during EASOE [1994, eng] **48-5500**
Modeling CH_4 and CO budgets in the troposphere [1993, eng] **48-2677**
Modeling ozone and nitrogen budgets in the troposphere [1993, eng] **48-2676**
Overview of the EASOE campaign [1994, eng] **48-5438**
Some case studies of chlorine activation during the EASOE campaign [1994, eng] **48-5495**
Stratospheric ozone depletion by ClONO2 photolysis [1993, eng] **48-336**
Pyne, A.R.
Drilling options for the Cape Roberts Project [1992, eng] **48-2321**
Fast ice behavior, Cape Roberts area [1992, eng] **48-2320**
Qi, Y.Q.
Air pollution and atmospheric environmental effects [1992, chi] **48-1485**
Qian, C.G.
Ice crystal formation by supersonic flow [1993, eng] **48-2099**
Qian, P.
Antarctic sea ice variations [1993, chi] **48-2029**
Qiao, D.S.
Reservoir damage from frost heave [1993, eng] **48-448**
Qin, D.
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989 [1993, eng] **48-4213**
Solar flares in antarctic ice cores [1993, eng] **48-3940**
Qin, D.H.
Workshop on ice core records of global bio- and geochemical cycles [1993, chi] **48-4571**
Qiu, G.Q.
Climatic changes and permafrost formation in China [1993, eng] **48-503**
Development condition of alpine permafrost in the Tianshan Mts., China [1993, eng] **48-449**
Development condition of cryosols in alpine and plateau regions of western China [1993, eng] **48-2277**
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake [1993, eng] **48-2134**
Seasonally frozen ground and frost heave in Gansu Province [1993, eng] **48-5260**
Studies on mountain permafrost in Asia [1993, eng] **48-5187**
Qiu, K.M.
Identification of sea ice using NOAA satellite data [1993, eng] **48-1064**
Qiu, Q.
Air pollution and atmospheric environmental effects [1992, chi] **48-1485**
Qiu, X.Q.
Drilling characteristics of engineering geology of permafrost in Da Hinggan Ling region [1993, chi] **48-4509**
Qu, X.M.
Study of the prevention of ice damage of structure in water in cold regions [1993, eng] **48-407**
Quetin, L.B.
Summary of WinCruise IV to the Antarctic Peninsula during September 1991 [1992, eng] **48-5098**
Quick, M.C.
Streamflow simulation of Satluj River in the western Himalayas [1993, eng] **48-2790**
Quilfen, Y.
Identification of sea ice zones by satellite scatterometer [1994, eng] **48-3483**
Quilty, P.G.
East Antarctic Neogene sediments and ice sheet evolution [1993, eng] **48-3294**
Quinn, W.F.
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska [1994, eng] **48-5409**
Quinton, W.
Methane flux from drained northern peatlands [1993, eng] **48-2547**
Quirico, E.
Nitrogen ice spectra with application to Triton [1993, eng] **48-2381**
Quon, C.
Oceanic general circulation model applied to marginal seas [1990, eng] **48-776**
R.P. Browne Marine Consultants Limited
Arctic tanker 80/20 hullform optimisation. Volume V—Optimisation of structure [1993, eng] **48-4125**
Rabinowitz, P.D.
Ice management in high latitude scientific ocean drilling [1994, eng] **48-3987**
Rachocki, A.H.
Origin of pradolinas: a re-assessment—a reply to S. Kozarski [1991, eng] **48-3651**
Racine, C.H.
Environmental effects of crude oil spills in interior AK [1994, eng] **48-5115**
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later [1993, eng] **48-722**
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] **48-3792**
Rack, W.
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet [1994, eng] **48-3437**
Radewonuk, E.R.
Twin rinse columns for freeze concentration of rinsable concentrates [1991, eng] **48-2224**
Radhakrishnan, T.P.
Graph theoretical analysis of water clusters [1991, eng] **48-3762**
Radionov, V.F.
Dynamics of total ozone content in Antarctica [1993, rus] **48-2485**
Radke, L.F.
Airborne measurements of gases and particles from an Alaskan wildfire [1993, eng] **48-1096**
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere [1993, eng] **48-3899**
Raffy, J.
Stone trails on unstable slopes [1993, eng] **48-1848**
Rages, K.
Voyager imaging of Triton's clouds and hazes [1992, eng] **48-1608**
Raghavan, R.
Polarimetric radar modeling of mixtures of precipitation particles [1993, eng] **48-2107**
Polarized radar discrimination of mixed precipitation [1994, eng] **48-2325**
Retrieval of storm microphysics using K(a) band radar observations [1993, eng] **48-1679**
Raheja, U.T.
Electron impact ionization of H2O ice [1993, eng] **48-341**
Railio, J.
Special demands for ventilation system and product standards in cold climates [1994, eng] **48-3858**
Raisbeck, G.M.
Anthropogenic ^{129}I in the Kara Sea [1993, eng] **48-4526**
Raizonville, R.
Analysis of satellite-altimeter height measurements above continental ice sheets [1993, eng] **48-3585**
Rajamäe, R.
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics [1993, eng] **48-3610**
Rajani, B.
Pipelines and laterally loaded piles in elastoplastic medium [1993, eng] **48-212**
Uplift of model steel pipelines embedded in polycrystalline ice [1993, eng] **48-1013**
Rajani, B.B.
Field monitoring of frost-related sidewalk cracking [1994, eng] **48-3366**
Rajesh, J.
Experiments and analysis of pipe freezing [1993, eng] **48-867**
Raju, S.P.
Frost formation and heat transfer on circular cylinders in cross-flow [1993, eng] **48-2155**
Semi-empirical transient method for modelling frost formation on a flat plate [1993, eng] **48-3200**
Rakusa-Suszczewski, S.
Transparency changes in waters of Admiralty Bay [1992, eng] **48-539**
Zooplankton changes during the year in Admiralty Bay (February 1990-January 1991) [1992, eng] **48-540**
Ram, M.
Insoluble particles in polar ice [1994, eng] **48-4443**
Preliminary depth-age scale of the GISP2 ice core [1994, eng] **48-5407**
Ramamurthy, M.K.
Mesoscale structure of a severe ice storm [1994, eng] **48-5437**
Ramos, M.
Exact solution for the Stefan problem in different geometries [1994, eng] **48-2573**
Permafrost thermal regime near the Spanish Antarctic Station [1993, eng] **48-5232**
Rampino, M.R.
Volcanic winter and accelerated glaciation following the Toba super-eruption [1992, eng] **48-1507**
Ramsay, B.
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence [1994, eng] **48-3471**
Potential of RADARSAT for sea ice applications [1993, eng] **48-2499**
Ramseier, R.O.
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay [1993, eng] **48-2354**
Fusion of ERS-1 SAR and SSM/I ice data [1994, eng] **48-3466**
Utility of passive observations for operational sea ice modelling [1993, eng] **48-4330**
Ramzaev, P.V.
Atomic "glow" of the North [1992, rus] **48-1270**
Rana, B.
Precipitation-runoff model in the Langtang Khola basin [1993, eng] **48-2787**
Ranaudo, R.J.
Icing effects on aircraft stability and control [1993, eng] **48-4879**
Rand, J.H.
Design of an antarctic water well [1993, eng] **48-873**
Frazil ice concentration meter [1992, eng] **48-1547**
Stress analysis of a proposed tunnel under the South Pole skiway [1993, eng] **48-2963**
Underwater frazil ice detector [1991, eng] **48-2221**

Randall, F.A., Jr.
Concrete masonry handbook for architects, engineers, builders [1991, eng] **48-2668**
Ranford, B.
Death in the Arctic [1993, eng] **48-1647**
Rangno, A.L.
Further analyses of the Climax cloud-seeding experiments [1993, eng] **48-2369**
Ice particle concentrations in cumuliform clouds [1994, eng] **48-4478**
Rango, A.
Effect of simulated climate change on snowmelt runoff modeling in selected basins [1993, eng] **48-2019**
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days [1994, eng] **48-5157**
Radiometry of snow cover structure [1993, eng] **48-1318**
Snow hydrology processes and remote sensing [1993, eng] **48-985**
Snowmelt runoff forecasts in Colorado with remote sensing [1990, eng] **48-1596**
Rango, R.
Flexural waves on arctic data: application of new techniques for S/N enhancement [1984, eng] **48-3921**
Ranney, T.A.
Casing materials for ground water monitoring wells [1994, eng] **48-5413**
Ranville, J.R.
Ice composition of Wyoming glaciers [1991, eng] **48-2995**
Rao, B.M.L.
Seawater battery for ocean buoys [1992, eng] **48-1603**
Rao, C.L.V.R.
Snowmelt runoff forecasting studies in Himalayan basins [1993, eng] **48-2775**
Rao, D.K.
Chemical composition of Himalayan glacier ice [1993, eng] **48-1273**
Ice dynamics and climatic studies on Himalayan glaciers [1993, eng] **48-2799**
Rao, G.V.
Aerial measurements of cirrus clouds dynamics [1993, eng] **48-958**
Rao, V.K.
Effects of gas leakage and crevices on cold starting of engines [1994, eng] **48-3086**
Rapetti, F.
Italian alpine climatic effects on glacier fluctuations [1993, ita] **48-4108**
Rapley, C.G.
Antarctic topography derived from ERS-1 altimetry [1994, eng] **48-3434**
Rappol, M.
Ice flow and glacial transport in lower St. Lawrence, Quebec [1993, eng] **48-3261**
Rashed, A.M.I.
Microstructure of air-entrained concrete [1991, eng] **48-3524**
Rasmussen, D.H.
Theory of nucleation of ice [1993, eng] **48-1600**
Rasmussen, E.A.
High latitude atmospheric circulation observed with the ERS-1 [1994, eng] **48-3476**
Northern and southern hemispheric polar lows—a comparative study [1993, eng] **48-2101**
Polar lows over the northeast Greenland Sea [1991, eng] **48-4725**
Report on polar low workshop [1993, eng] **48-2459**
Rasmussen, L.A.
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point [1993, eng] **48-391**
Rasmussen, R.A.
Ice core indications of Northern Hemisphere methane variations [1993, eng] **48-3254**
Rasmussen, R.M.
Application of an explicit microphysics mesoscale model to a regional icing event [1994, eng] **48-2326**
Snow-band formation during an aircraft accident [1993, eng] **48-2358**
Rastorgaev, I.K.
Change in the concept of foundation building in the cryolithozone in connection with climate warming [1992, rus] **48-4778**
Developing frozen ground in northern construction [1992, rus] **48-1264**
Rastogi, S.K.
Freezing of a water-saturated inclined packed bed of beads [1993, eng] **48-602**
Solidification of a binary mixture saturating an inclined bed of packed spheres [1993, eng] **48-2455**
Ratkin, N.E.
Role of snow cover in the pollution of landscapes in the Murmansk region [1992, rus] **48-2119**
Ratté, C.A.
Landslide hazards in Vermont [1993, eng] **48-3283**
Ratvasky, T.P.
Icing effects on aircraft stability and control [1993, eng] **48-4879**
Räty, R.K.
Studies on nonlinear dynamics of driven vibrating systems with dissipation [1992, eng] **48-1235**
Rau, G.
Interaction of particles and ice-water interfaces during bulk freezing [1992, eng] **48-3079**
Rauber, R.M.
Cloud microphysics during wintertime Coloradan storms [1986, eng] **48-3259**
Cloud system supercooled liquid water structure [1987, eng] **48-3076**
Mesoscale structure of a severe ice storm [1994, eng] **48-5437**
Remote sensing of supercooled liquid water in a winter storm [1986, eng] **48-3260**
Raukas, A.
Pleistocene glacial deposits on Scandinavian ice sheet margins [1993, eng] **48-1010**
Raukola, T.
Field tests of liquid salt and pre-wetted salt [1993, fin] **48-3067**
Rauline, R.
Tires with polymer composition and silica filler [1993, eng] **48-4367**
Raven, R.
Effectiveness of calcium magnesium acetate deicer [1992, eng] **48-3069**
Ravi-Chandar, K.
Stress-optic effect in ice [1994, eng] **48-4448**
Ravishankara, A.R.
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations [1994, eng] **48-3151**
Reactions of halogen species on ice surfaces [1993, eng] **48-3060**
Simulation of stratospheric heterogeneous nucleation processes [1993, eng] **48-2471**
Temperature dependence of the HNO_3 UV absorption cross sections [1993, eng] **48-2472**
Rawlings, J.P.
Air conditioning system with a conduit for deicing driveways [1992, eng] **48-2241**
Ray, D.S.
Acoustic propagation in the Barents Sea [1993, eng] **48-2503**
Raymond, C.F.
Changes in the longitudinal profiles of glaciers during advance and retreat [1993, eng] **48-3584**
Glaciological observations on Antarctic Peninsula [1992, eng] **48-2618**
Snow stability during rain [1993, eng] **48-3590**
Variegated Glacier, 1973-1981. Data file report-1981 [1988, eng] **48-3331**
Vertical strain measurement in core holes [1994, eng] **48-5350**
Raymond, J.A.
Release of an ice-active substance by antarctic sea ice diatoms [1994, eng] **48-3043**
Raynaud, D.
Air content of ice deposits near Vostok Station [1993, rus] **48-3567**
Gravitational separation in polar firn [and response] [1993, eng] **48-1902**
Rayner, P.
Modelling ice sheet and climate changes through the ice ages [1993, eng] **48-4195**
Razaqpur, A.G.
Two-dimensional frost-heave model for buried pipelines [1993, eng] **48-2750**
Razgovorova, E.L.
Physical phenomena in water freezing in closed cavities [1994, eng] **48-5598**
Reagan, J.
Preproduction cold weather test of a landmine [1993, eng] **48-1771**
Preproduction qualification test of a smoke generating system [1994, eng] **48-5435**
Rebhan, D.
Process and apparatus for cleaning contaminated soil [1990, eng] **48-2264**
Rebristaia, O.V.
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hyperarctic tundras on the Yamal Peninsula [1993, rus] **48-1644**
Reburn, W.J.
Measurement of stratospheric NO_2 by ISAMS [1993, eng] **48-4219**
Reddy, E.S.
BLASIM: a computational tool to assess ice impact damage on engine blades [1993, eng] **48-2640**
Root damage analysis of aircraft engine blade subject to ice impact [1992, eng] **48-4882**
Redican, J.
Reconstruction of the CCGS *Louis S. St. Laurent* [1994, eng] **48-4300**
Reece, E.W.
Air-deliverable, ice-penetrating sonobuoy [1991, eng] **48-3664**
Reed, M.
Real time oil spill forecasting during MIZ '93 [1994, eng] **48-4922**
Reed, R.K.
Bering Sea continental shelf circulation [1993, eng] **48-1279**
Reeh, N.
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records [1993, eng] **48-4200**
Modeling Greenland ice sheet sensitivity to climatic changes [1994, eng] **48-3518**
Sensitivity to climate change of the mass balance of glaciers in southern Norway [1993, eng] **48-3592**
Reehorst, A.
Close-up analysis of aircraft ice accretion [1993, eng] **48-4885**
Reehorst, A.L.
Prediction of ice accretion on a swept NACA 0012 airfoil [1992, eng] **48-4858**
Rees, W.G.
Cloud cover constraints on satellite sensing of polar ice sheets [1993, eng] **48-1308**
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic [1994, eng] **48-3485**
Infrared emissivity of arctic winter snow [1993, eng] **48-2217**
Texture-based classification of cloud and ice-cap surface features [1993, eng] **48-1331**
Reeves, J.M.
Nitrous oxide as an indicator of arctic vortex dynamics [1994, eng] **48-5459**
Spectroscopy of chlorine monoxide in the Greenland atmosphere [1994, eng] **48-5458**
Refining de-icing tactics
Refining de-icing tactics [1994, eng] **48-3237**
Reger, R.D.
Sedimentological geochronology in Alaskan marshes [1994, eng] **48-3563**
Regg, J.
Regulatory requirements for floating drilling units in the Arctic [1993, eng] **48-789**
Reich, P.
Placement of cryosols in soil taxonomy [1993, eng] **48-2273**
Reid, A.P.
Properties of marine ice, a new ice type [1994, eng] **48-3303**
Reid, D.S.
Glass transition in the freezing process [1994, eng] **48-4658**
Thermodynamics and frozen foods [1993, eng] **48-337**
Reid, J.R.
Bank recession of Lake Sakakawea, ND [1988, eng] **48-2083**
Reid, L.C., Jr.
Peat leachmound treatment of residential wastewater in subarctic Alaska [1993, eng] **48-211**
Reid, S.J.
Influence of gravity waves on stratospheric ozone distribution [1994, eng] **48-5507**
Reid, S.L.
Peat leachmound treatment of residential wastewater in subarctic Alaska [1993, eng] **48-211**
Reiersen, L.-O.
Special problems in the polar region and the monitoring and assessment to be done by AMAP [1993, eng] **48-4511**
Reimnitz, E.
Contrasts in arctic shelf sea ice regimes [1994, eng] **48-5634**
Influence of ice on southern Lake Michigan coastal erosion [1994, eng] **48-4161**
Reinhold, A.
Interferometric SAR data analysis on Ronne Ice Shelf [1992, eng] **48-249**
Reinking, R.F.
Lake Ontario Winter Storms (LOWS) project [1993, eng] **48-1095**
Topographic influences on Colorado snowstorms [1984, eng] **48-3073**
Reinmann, J.J.
AGARD symposium on effects of adverse weather on aerodynamics [1991, eng] **48-3683**
Reinwarth, O.
Glaciological research at Vernagtferner/Oetztal Alps [1993, eng] **48-2785**
Meteorological data from weather stations on mountain glaciers [1986, ger] **48-612**
Results from Austrian glaciers [1994, eng] **48-2715**
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983) [1986, ger] **48-611**
Reiter, E.R.
Distributed numerical weather prediction: what lies beyond television's "Volksmeteorologie" [1990, eng] **48-3127**
Reitsma, L.
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] **48-3792**
Rekolainen, S.
Finnish model for runoff and erosion prediction [1993, eng] **48-2674**
Remy, F.
Analysis of satellite-altimeter height measurements above continental ice sheets [1993, eng] **48-3585**

Precise altimetric topography in ice-sheet flow studies [1993, eng] 48-1322
Seasat observations of the antarctic ice sheet [1993, eng] 48-2401

Remy, J.M.
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles [1994, eng] 48-3223
Limestone pore structure and frost resistance [1993, eng] 48-3193

Ren, Z.Z.
Experimental study of canal lining prevented from frost damage and seepage [1993, eng] 48-5233

Renberg, I.
Pump freeze corer for recent sediments [1993, eng] 48-1527

Rendell, A.P.
Ab initio characterization of ClOOH: implications for atmospheric chemistry [1993, eng] 48-2316

Rendigs, R.R.
Sedimentary framework of Boston Harbor, Massachusetts [1992, eng] 48-1926

Rene, F.
Vacuum freeze drying of vial-enclosed liquids [1993, eng] 48-2344

Renger, W.
Two dimensional stratospheric aerosol distributions during EASOE [1994, eng] 48-5462

Rentsch, H.
Change in surface elevation of glaciers in the eastern Alps, 1979-1989 [1991, ger] 48-3660
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969 [1977, ger] 48-3309

Reports of planetary geology and geophysics program, 1990
Reports of planetary geology and geophysics program, 1990 [1991, eng] 48-3696

Reppen, W.D.
Wheeled carrier for a snow plow [1989, eng] 48-4078

Reszöfi, F.
Observation of ice load of transmission line in Hungary [1993, eng] 48-824
Observations on falling of ice from conductor of transmission line [1993, eng] 48-814
Wind speed effect on transmission line icing [1993, eng] 48-815

Retinskiĭ, O.N.
Ice transference of Bering Strait [1993, eng] 48-4348

Retzlaff, R.
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica [1993, eng] 48-3576
Radar study of antarctic ice stream stagnation [1993, eng] 48-3581

Reuss, J.O.
Biogeochemical fluxes in the Glacier Lakes catchments [1993, eng] 48-4120

Reuter, G.W.
Observations of a snow band in a symmetrically unstable flow over Alberta [1993, eng] 48-3496

Rex, D.C.
Geology of Mount Murphy volcano [1994, eng] 48-3299

Reynaud, L.
Ice core drilling on Mont Blanc [1994, eng] 48-2713

Reynolds, A.
Model/full scale ice analysis. Volume I [1993, eng] 48-3334

Reynolds, C.M.
Applying field-expedient bioreactors and landfarming in Alaskan climates [1994, eng] 48-4004
Field bioremediation rates in a cold region landfarm: spatial variability [1993, eng] 48-297
Remediation of petroleum contaminated soils through bioventing in cold regions [1993, eng] 48-2065

Reynolds, D.W.
Cloud response to two forms of airborne seeding [1990, eng] 48-3077

Reynolds, J.F.
Effect of climate change on arctic tussock tundra [1993, eng] 48-2424

Reynolds, R.L.
North Slope, Alaska magnetostratigraphy [1994, eng] 48-3760

Reznik, L.
Decreasing energy expenditures for warming engines before ignition [1994, eng] 48-3085

Rheem, C.K.
Numerical simulation of pack ice movement using the momentum conservation method [1993, jpn] 48-1052
Pack ice movement simulation using a distributed mass/discrete floe model [1993, eng] 48-171

Rianskiĭ, F.N.
Planned industrial regions in the Amur taiga zone [1989, rus] 48-902

Ricard, J.
Postglacial emergence of Ungava Peninsula, Quebec [1993, eng] 48-2205

Ricchiazzi, P.
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery [1994, eng] 48-4384

Ricciardulli, L.
Effects of aircraft exhaust on polar atmospheric chemistry [1993, eng] 48-2477

Ricco, A.J.
Method and apparatus for acoustic plate mode liquid-solid phase transition detection [1990, eng] 48-4756

Rice, J.A.
Ice composition of Wyoming glaciers [1991, eng] 48-2995

Rich, J.J.
Ocean-atmosphere-ice sheet model of long-term climatic change [1993, eng] 48-4192

Richards, K.S.
Water balance of a Norwegian glacier, pt.1 [1991, eng] 48-3655
Water balance of a Norwegian glacier, pt.2 [1991, eng] 48-3656

Richardson, R.J.H.
Coal distribution on Ellesmere I., Canada [1993, eng] 48-2415

Richardson, W.
Cold weather demonstration of the AH-64A helicopter. Final report [1993, eng] 48-1129

Richmond, M.C.
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route [1985, eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes [1982, eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route [1982, eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell [1992, eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg [1991, eng] 48-4232

Richmond, P.W.
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV) [1994, eng] 48-3095
Predicting vehicle mobility on snow-covered slopes [1993, eng] 48-1162

Richter-Menge, J.A.
End-capping procedure for cored ice samples used in tension tests [1993, eng] 48-3596
Tensile strength of first-year sea ice [1993, eng] 48-3587

Ricker, K.F.
Dating of a New Zealand moraine sequence [1993, eng] 48-3131

Rickman, R.L.
Water resources data for Alaska, water year 1992 [1993, eng] 48-1462

Ridings, R.S.
Responses to temperature of an Arctic psychrophylic ice diatom [1994, eng] 48-3791

Ridley, J.
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors [1993, eng] 48-4652

Ridley, J.K.
Climate signals from SSM/I observations of marginal ice shelves [1993, eng] 48-1321
Densely spaced radar altimeter coverage of antarctic ice shelves [1991, eng] 48-11
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf [1992, eng] 48-250
Identification of subglacial lakes using ERS-1 radar altimeter [1993, eng] 48-3589

Riedel, B.
Strain and velocity determination on Ronne Ice Shelf [1992, eng] 48-244

Rieg, A.
Simulation of snowpack and discharge in an alpine karst basin [1993, eng] 48-2789

Riemann, F.
Thraustochytrid protists in antarctic fast ice? [1993, eng] 48-47

Riggs, G.
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm [1993, eng] 48-2927

Rignot, E.J.M.
Change detection techniques for ERS-1 SAR data [1993, eng] 48-1229
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR [1993, eng] 48-1719
Radar scattering from snow facies of the Greenland ice sheet [1993, eng] 48-1716
Unusual radar echoes from the Greenland ice sheet [1993, eng] 48-538

Rigor, I.G.
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986 [1989, eng] 48-3333
International Arctic Buoy Program data report for 1 January 1992-31 December 1992 [1993, eng] 48-3285

Riley, J.P.
Winter highway maintenance data, Vol.2 [1993, eng] 48-1847

Riley, M.N.
Cold weather demonstration of the AH-64A helicopter. Final report [1993, eng] 48-1129

Riley, S.J.
Thermal anti-icing systems for aero-engine intakes [1993, eng] 48-2806

Rind, D.
Exploring the southern ocean response to climate change. Final report [1993, eng] 48-3817

Riseborough, D.W.
Modelling permafrost response to climate change and climate variability [1993, eng] 48-877

Riska, K.
Assessment of ice model testing techniques [1994, eng] 48-4295
Experimental investigations on extrusion of crushed ice [1994, eng] 48-5586
Full-scale observations of ship performance in ice [1993, eng] 48-106
Methods to map ice conditions, to measure ice properties and to quantify ice features [1993, eng] 48-177
Model for ice induced vibration of slender offshore structures [1993, eng] 48-148
Modelling of ice induced vibration of slender offshore structures [1993, eng] 48-2129

Risley, D.E.
Geologic report for the Gulf of Alaska planning area [1992, eng] 48-1263

Rist, M.A.
Ice triaxial deformation and fracture [1994, eng] 48-5167

Ristic, Z.
Ice formation damage of supercooling dogwood tissue [1993, eng] 48-2751

Ritch, R.
Ice impact load measurement aboard the icebreaker *Oden* [1994, eng] 48-4291

Ritchie, J.C.
Holocene vegetation history in a Québec forest [1993, eng] 48-2076

Ritter, B.
Strain and velocity determination on Ronne Ice Shelf [1992, eng] 48-244
Trigonometric leveling 1992 on Ronne Ice Shelf [1992, eng] 48-245

Ritter, J.A.
Boundary layer chemical flux over Canadian wetlands [1994, eng] 48-4621

Ritz, C.
Modelling of the Fennoscandian ice sheet [1993, eng] 48-4179

Ritz, D.
Spectroscopic measurement BrO in the arctic troposphere [1992, eng] 48-2636

Ritz, K.
Freezing as a means of preserving samples in soil respiration studies [1989, eng] 48-3414

Rivkin, F.M.
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula [1993, eng] 48-2299
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula [1993, eng] 48-419

Rivkina, E.M.
Methane and permafrost soil of the Kolyma-Indigir lowland [1993, eng] 48-1887
Microbiological and biogeochemical research in permafrost: paleoecological implications [1993, eng] 48-518

Rizi, V.
Effects of aircraft exhaust on polar atmospheric chemistry [1993, eng] 48-2477
Volcanic ash aerosol stimulation of stratospheric nucleation [1994, eng] 48-5496

Riznyk, R.Z.
Peat leachmound treatment of residential wastewater in subarctic Alaska [1993, eng] 48-211

Roach, A.T.
Coupled ice-ocean variability in the Greenland Sea [1993, eng] 48-2352

Robasky, F.M.
Recent precipitation trends over the polar ice sheets [1993, eng] 48-1914

Roberts, F.J.
Frost free heat exchanger [1989, eng] 48-4084

Robinson, A.V.
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf [1991, eng] 48-6
Oceanographic measurements under Ronne Ice Shelf [1992, eng] 48-241

Robinson, D.A.
Associations between snow cover extent and surface air temperature over North America [1993, eng] 48-2944
First revisal of SMMR world map over western China [1992, chi] 48-2017
Global snow cover monitoring: an update [1993, eng] 48-1101
Hemispheric snow cover from satellites [1993, eng] 48-1350
Monitoring Northern Hemisphere snow cover [1993, eng] 48-1788

North American snow cover variability, 1972-1993 [1993, eng] 48-2926
Snow cover records from snow depth models [1993, eng] 48-1803
Snow cover variability in the Great Plains of the United States: 1910-1988 [1993, eng] 48-2925

Robinson, G.W.
Properties of liquid water: origin of the density anomalies [1994, eng] 48-4715

Robinson, M.A.
Computer program for designing pipe networks for arctic settlements [1979, eng] 48-4141

Robinson, W.H.
Flexural waves on Erebus Glacier Tongue [1994, eng] 48-5174

Rocchio, J.E.
Permeability measurements on new and equitemperature snow [1993, eng] 48-2053

Rochal, S.B.
Theory of ice structures [1993, eng] 48-931

Roche, A.E.
CLAES south-looking aerosol observations for 1992 [1993, eng] 48-631
Satellite observation of antarctic stratospheric chemistry [1993, eng] 48-623

Roche, Y.
Thermal regime of discontinuous permafrost in Quebec [1993, eng] 48-879

Rochefort, R.M.
Changes in North American subalpine tree distribution [1994, eng] 48-4944

Rockwell, J., Jr.
Peat leachmound treatment of residential wastewater in subarctic Alaska [1993, eng] 48-211

Rockwitz, K.D.
3-dimensional scattering functions of ice crystals and depolarization effects [1989, eng] 48-1473

Rockwood, D.M.
Interactive calibration for the SSARR watershed model [1993, eng] 48-2954

Rödder, M.
Interaction of particles and ice-water interfaces during bulk freezing [1992, eng] 48-3079

Rodger, I.
Inflatable rucksack for avalanche survival [1994, eng] 48-3272

Rodin, G.J.
On the relevance of linear elastic fracture mechanics to ice [1992, eng] 48-1554

Rodolphe, F.
Vacuum freeze drying of vial-enclosed liquids [1993, eng] 48-2344

Rodriguez, J.Y.
Operational forecasting snowmelt model with objective calibration [1994, eng] 48-4711

Roebber, P.
Ice accretion problem in Canadian waters related to offshore energy and transportation [1985, eng] 48-1128

Roebuck, B.D.
Uptake and loss of white phosphorus in American kestrels [1994, eng] 48-3222
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] 48-3792

Roessler, K.
Chemical problems in KOSI comet simulation experiments [1991, ger] 48-3679
Preparation and analysis of analog material for KOSI comet simulation experiments [1991, ger] 48-4759

Rogachko, S.I.
Action of sea ice on offshore construction [1994, eng] 48-3027

Rogers, J.C.
Florida citrus freezes and polar anticyclones in the Great Plains [1991, eng] 48-5318
Vertical strain measurement in core holes [1994, eng] 48-5350

Rogers, K.L.
Paleoclimate from isotope, pollen, and fossil data [1993, eng] 48-1498

Rogne, O.
New political and scientific trends in the Arctic [1993, eng] 48-181

Rohli, R.V.
Florida citrus freezes and polar anticyclones in the Great Plains [1991, eng] 48-5318

Rohrbach, R.P.
Increasing icemaking efficiency by continuous solidification [1993, eng] 48-2506

Rohrer, M.B.
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis [1994, eng] 48-4709
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation [1994, eng] 48-4710
Point modeling of snow cover water equivalent [1990, eng] 48-1583

Rolfseng, L.
Effects of polluted atmospheric ice on power line conductivity [1993, eng] 48-1829

Roman, J.M.
Electrothermal timed de-icing apparatus for aircraft air foils [1989, eng] 48-5521
Solid-state sequencing controller for timed de-icing [1988, eng] 48-5520

Roman, L.T.
Impact of salt type on deformation of frozen saline soils [1993, eng] 48-5234
New method for predicting the long-term strength of frozen soils [1992, eng] 48-1405

Romanov, A.A.
Minimum and maximum drift ice extent in the southern ocean in 1991 [1992, eng] 48-732

Romanov, I.P.
Atlas: morphometric characteristics of ice and snow in the arctic basin [1993, eng] 48-1911
Ice cover of the arctic basin [1993, eng] 48-2311
Ice cover of the Arctic basin [1992, rus] 48-4148

Romanov, P.G.
Optimal thermal melioration of soil in climatic conditions of the North [1992, rus] 48-4791

Romanov, V.I.
Questions on the preservation of frozen straw-colored soils [1988, rus] 48-911

Romilly, D.P.
Low temperature crack growth behavior in pipeline steel [1993, eng] 48-2143

Romme, W.H.
Estimating localized SWE on the Yellowstone northern range [1993, eng] 48-2928
Lodgepole pine invasion of subalpine meadows [1993, eng] 48-2422

Ronin, V.
Winter concreting with the use of energetically modified cement (EMC) [1994, eng] 48-3954

Ronnert, L.
Moraine formation at a Svalbard site [1993, eng] 48-633

Ronveaux, D.
Low salinity frazil ice at ice shelf base [1993, eng] 48-48

Rooney, J.W.
Pavement performance and low temperature cracking of subarctic and arctic airfields [1993, eng] 48-472

Roos, P.
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991 [1993, eng] 48-4530
Environmental radioactivity in the Antarctic Peninsula area [1993, eng] 48-4533

Roots, F.
Climate change—its possible impact on the environment and the people of northern regions [1992, eng] 48-2037

Ropelewski, C.F.
Northern Hemisphere snow cover and temperature patterns in the 1980s [1993, eng] 48-1789

Ros, N.S.
Cold weather demonstration of the AH-64A helicopter. Final report [1993, eng] 48-1129

Rose, J.
Boulder clusters in glacial flutes [1992, eng] 48-2519

Rose, W.I.
Mexican volcanic lahar hazard assessment [1993, eng] 48-3233

Rosen, J.M.
Antarctic ozone and stratospheric cloud observations 1991 [1993, eng] 48-189
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989 [1993, rus] 48-2486
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project [1993, eng] 48-2586

Rosenberg, L.
Cryogenic suspension method [1992, eng] 48-2236

Rosenfeld, D.
Effects of cloud seeding in West Texas: additional results and new insights [1993, eng] 48-2370

Rosenfeld, J.E.
Radiative feedback of polar stratospheric clouds on antarctic temperatures [1993, eng] 48-[illegible]2

Rosenthal, W.
Estimating total snow volume in a small alpine watershed [1993, eng] 48-2945

Ross, D.K.
Evidence for two kinds of hydrogen bond in ice [1993, eng] 48-543
Existence of two H-bonds of different strengths in ice and the possible implications [1994, eng] 48-5383

Ross, R.M.
Summary of WinCruise IV to the Antarctic Peninsula during September 1991 [1992, eng] 48-5098

Rossi, A.
Lube basestock manufacturing technology and engine oil pumpability [1994, eng] 48-3100

Rossi, G.
G.I.S. analysis of snow cover-hydroelectric potential variables [1993, ita] 48-4109
Impact of the recent glacier retreat on the hydrology of an Alpine basin [1994, eng] 48-5570

Rossi, G.C.
Air mass identification in relation to pollution episodes in Italian Alps [1991, eng] 48-4763

Rossiter, J.R.
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River [1994, eng] 48-5613
Novel shipboard ice properties measurement system [1994, eng] 48-5590

Rost, K.T.
On the Pleistocene glaciation of eastern China and northwestern Tibet [1993, ger] 48-960

Rostasy, F.S.
Strength, deformation and thermal strains of concrete at cryogenic conditions [1982, eng] 48-5395

Rotert, K.R.
Membrane fatty acid analysis of antarctic bacteria [1993, eng] 48-3823

Roth, A.
Ground-based measurements of Greenland stratospheric chemistry [1994, eng] 48-5481

Roth, J.
Meteorite thermoluminescence and ice movement in the Elephant Moraine region [1992, eng] 48-2616

Roth, R.
Sea-ice and climate: an approach using SAR data [1994, eng] 48-3459

Rothery, P.
Microalgae distribution on Signy I. [1993, eng] 48-1359

Rothrock, D.A.
Arctic sea ice surface temperature from AVHRR [1994, eng] 48-2891
Calculation of surface temperature and albedo of arctic sea ice from AVHRR [1993, eng] 48-1354
Geophysical Processor System: automated analysis of ERS-1 SAR imagery [1994, eng] 48-3451
Monitoring sea ice flux through Fram Strait [1994, eng] 48-3450
Report on polar regions AVHRR workshop [1993, eng] 48-1293
Sea ice lead dynamics from ERS-1 SAR [1994, eng] 48-3448

Rothwell, D.R.
Law of the sea and the polar regions [1994, eng] 48-5120

Rott, H.
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images [1977, ger] 48-3308
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet [1994, eng] 48-3437
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas [1994, eng] 48-3478
Deriving snow liquid water content using C-band polarimetric SAR [1993, eng] 48-1705
Glaciers of the Alps [1993, eng] 48-4028
Modeling and observation of polarimetric SAR response to dry snow [1993, eng] 48-1706
Multifrequency and polarimetric SAR observations on alpine glaciers [1993, eng] 48-1306
Remotely sensed microwave signatures of antarctic firn [1993, eng] 48-1346
Satellite measurements for studying the cryosphere [1990, ger] 48-3126
Snow mapping in alpine regions with synthetic aperture radar [1994, eng] 48-5136
Study on SAR land applications for snow and glacier monitoring. Executive summary [1988, eng] 48-2363
Study on SAR land applications for snow and glacier monitoring. Final report [1988, eng] 48-3332
Water resources, snow and ice [1991, eng] 48-4868

Rottier, P.
Modelling wave/ice interactions in the marginal ice zone [1990, eng] 48-775

Rottier, P.J.
Collision events between adjacent ice floes driven by an ocean wave field [1993, eng] 48-4355

Roujanskii, V.E.
Permafrost evolution in Cenozoic Eurasia [1993, eng] 48-515

Roulet, C.A.
Expansion of aerated concrete due to frost—determination of critical saturation [1982, eng] 48-5374

Roulet, N.
Sea breezes and advective effects in southwest James Bay [1994, eng] 48-4617

Roulet, N.T.
Methane emissions from wetlands, southern Hudson Bay lowland [1994, eng] 48-4604
Methane flux from drained northern peatlands [1993, eng] 48-2547
Methane flux:water table relations in northern wetlands [1993, eng] 48-210
Role of the Hudson Bay lowland as a source of atmospheric methane [1994, eng] 48-4603

Rouse, W.R.
Adaption to permafrost in the Canadian north: present and future [1992, eng] 48-2033
Modelling evaporation from wetland tundra [1994, eng] 48-4650

Rovansek, R.J.
Improving estimates of snowpack water equivalent using double sampling [1993, eng] 48-2940

Rowan, L.
Cryogenic suspension method [1992, eng] 48-2236

Rowe, C.M.
Radiometric derivations of Greenland ice sheet surface variations [1993, eng] **48-1328**
Rowe, R.D.
Stratified flow under an ice keel—a numerical approach [1993, eng] **48-69**
Rowland, B.
Infrared spectra of HCl-ice surfaces at cryogenic temperatures [1993, eng] **48-1673**
Roy, C.R.
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations [1994, eng] **48-4380**
Roy, M.
Field study of two road sections during a freeze-thaw cycle [1992, eng] **48-2113**
Rozanski, K.
Isotopic patterns in modern global precipitation [1993, eng] **48-1495**
Rozema, D.M.
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984 [1991, eng] **48-4745**
Rozenshtein, V.B.
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles [1993, rus] **48-2495**
Rozier, W.R.
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols [1994, eng] **48-4014**
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992 [1994, eng] **48-4013**
Rudakov, V.V.
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989 [1993, rus] **48-2486**
Ruddell, A.
Glaciers of New Zealand's southern alps: a century of retreat [1990, eng] **48-2669**
Ruddiman, W.F.
Model description, external forcing, and surface boundary conditions [1993, eng] **48-2976**
Rudetskii, V.A.
Dynamic model of ice-structure interaction [1993, eng] **48-1054**
Initial conditions of ice-structure interaction problem [1994, eng] **48-3026**
Rudolf, T.
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert [1993, eng] **48-3055**
Rufenach, C.L.
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery [1993, eng] **48-1689**
Extraction of marginal ice zone thickness using gravity wave imagery [1994, eng] **48-2810**
Extraction of marginal-ice-zone thickness using gravity wave imagery [1993, eng] **48-1688**
Ruffieux, D.
1992 Arctic Leads Experiment: an overview of the meteorology [1993, eng] **48-2126**
Ruffi, H.
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland [1994, eng] **48-5335**
Ruhl, J.
Fracture toughness of freshwater ice crystals [1992, eng] **48-1552**
Ruhm, F.
Avalanche report 1991/1992. Documentation and case studies [1993, ger] **48-765**
Ruhnau, J.
Ice loads on overhead power lines in Germany and their impact on reliability and design [1993, eng] **48-829**
Rumford, K.J.
Anti-icing valve [1989, eng] **48-4363**
Ruminski, M.
Cape Cod snowstorm [1994, eng] **48-2761**
Rummukainen, M.
Airborne particles in snow [1993, eng] **48 386**
Ruocco, G.
Molecular dynamics results for stretched water [1993, eng] **48-1620**
Rupp, K.H.
Hull for ice breaking ship [1993, eng] **48-5525**
Ice-breaking performance of a new arctic research vessel [1994, eng] **48-4302**
Icebreaking ship [1993, eng] **48-1734**
Shallow draft Thyssen/Waas-icebreaker [1993, eng] **48-108**
Rusakov, N.L.
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone [1993, eng] **48-2611**
Rusek, J.
Air-pollution-mediated changes in alpine ecosystems and ecotones [1993, eng] **48-1609**
Rush, G.C.
Preproduction qualification test of a smoke generating system [1994, eng] **48-5435**
Russell, A.J.
Flow-produced obstacle marks around stranded lake burst ice blocks [1993, eng] **48-2454**
Greenland ice sheet ablation and meltwater runoff measurements [1994, eng] **48-3514**
Hypothesis regarding ice-dammed lake drainage initiation [1993, eng] **48-3597**
Supraglacial lake drainage near Söndre Strömfjord, Greenland [1993, eng] **48-2406**
Russell, B.D.
Preliminary measurements of acoustic emission in young artificial sea ice [1993, eng] **48-4335**
Russell, J.M., III
Comparison of observed and modeled stratospheric water vapor [1993, eng] **48-636**
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica [1993, eng] **48-624**
Russell, P.B.
Post-Pinatubo sunphotometer measurements in AASE II [1993, eng] **48-2589**
Russia. Gosudarstvennyĭ komitet po delam stroitel'stva
Construction heat engineering [1986, rus] **48-1286**
Rütten, D.
Moss cryoprotection by natural and artificial substances [1993, eng] **48-1216**
Ruz, M.H.
Coastal dune development in a thermokarst environment [1993, eng] **48-5052**
Dune development on a Canadian subarctic coastline [1994, eng] **48-3805**
Ruzhanskii, V.E.
Cryogenic deformation in soils and their engineering geology consequence [1994, eng] **48-3400**
Ryan, F.W.
Transparent article having high visible transmittance [1988, eng] **48-4271**
Ryan, K.G.
Ultraviolet radiation and bottom-ice algae in McMurdo Sound [1994, eng] **48-4389**
Rychagov, G.I.
Fluvial lithomorphogenesis in the Protva River valley [1993, rus] **48-3742**
Rydén, B.E.
Seasonal characteristics of thermal processes in tundra soils [1993, eng] **48-2291**
Rye, A.J.
Segmentation of ERS-1 sea ice imagery for polar operations [1994, eng] **48-3460**
Rye, N.
Holocene glacial activity in western Norway [1993, eng] **48-604**
Ryerson, C.C.
Ice detector prediction of transmission line ice loads in northwestern Iceland [1993, eng] **48-840**
Superstructure spray and ice accretion on a large U.S. Coast Guard cutter [1993, eng] **48-855**
Use and calibration of Rosemount ice detectors for meteorological research [1993, eng] **48-825**
Ryzhkin, I.A.
Electron energy spectrum of ice [1993, eng] **48-1215**
Ryzhkov, A.V.
Polarimetric radar of mixed-phase mesoscale precipitation [1994, eng] **48-3757**
Rzentkowski, G.
Post-stable fluidelastic behavior of a tube bundle [1993, eng] **48-294**
Saarelainen, S.
Repair of a road built on permafrost at Kilpisjärvi, northern Finland [1993, eng] **48-450**
Saari, M.
Advanced HVAC-systems in energy-efficient experimental buildings [1994, eng] **48-3869**
Saarnisto, M.
Thermoluminescence dating of buried Finnish podsol [1993, eng] **48-3796**
Saastad, O.W.
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces [1993, eng] **48-621**
Saastamoinen, J.J.
Heating energy reduction of buildings in cold climates [1994, eng] **48-3850**
Sack, N.J.
Sublimation of water ice below 170 K [1993, eng] **48-2147**
Sackinger, W.M.
Delay of arctic shoreline erosion by artificial spray ice [1994, eng] **48-3974**
Direct conversion of natural gas to higher hydrocarbon liquids [1994, eng] **48-3984**
Fracture of multiyear sea ice acting on an offshore structure [1993, eng] **48-145**
Sadeghipour, M.S.
Axial conduction during liquid freezing in cooled tubes [1994, eng] **48-4704**
Sado, K.
Study of thermal distribution in concrete located in cold sea environment [1990, jpn] **48-4667**
Sadovskii, A.V.
Climate warming and the heat conditions of bases in northern cities [1994, eng] **48-4169**
SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993
Transcription of presentations [1993, eng] **48-1107**
Saeki, H.
Abrasion of hydraulic structures caused by movement of river ice [1994, eng] **48-5624**
Adfreeze bond strength between sea ice and materials used for offshore structures [1994, eng] **48-3988**
Conditions of arch formation by ice floes at bridge piers [1994, eng] **48-5625**
Determination of compressive strength and elastic modulus of sea ice by sonic method [1993, eng] **48-1044**
Development of the sink-and-float type ice boom [1993, jpn] **48-1046**
Experimental study on the control of ice movement with a new design of ice boom [1993, eng] **48-4352**
Experimental study on the overtopping of breakwaters by ice floes and waves [1993, eng] **48-156**
Factors influencing the coefficient of friction between sea ice and various materials [1993, eng] **48-95**
Fluid forces acting on and the velocity of ice floes [1993, eng] **48-4356**
Ice control in northern harbors [1992, eng] **48-1534**
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model [1994, eng] **48-5559**
Ice pileup on Hokkaido from tsunami of March 1952 [1993, jpn] **48-1050**
Movement of ice floes near a river mouth on the Okhotsk Sea coast [1993, jpn] **48-1049**
Pollution of fallen snow in urban areas [1994, eng] **48-3966**
Preventive measures against pack ice damage to marine resources and fishery facilities [1994, eng] **48-3951**
Regional economy along the Okhotsk Sea in Hokkaido [1994, eng] **48-3992**
Strength of river ice in the high snow accumulation region of Hokkaido, Japan [1994, eng] **48-5581**
Study on drift ice control utilizing arch formation of ice floes [1993, eng] **48-4353**
Total ice forces on multi-legged offshore structures [1993, eng] **48-4318**
Uniaxial compressive strength and elastic modulus of sea ice [1993, eng] **48-4327**
Saettem, J.
Barents Sea sedimentation dynamics and paleoenvironment [1994, eng] **48-4986**
Glacial erosion processes need improved understanding [1992, eng] **48-2457**
Safran, S.A.
Surface melting of ice induced by hydrocarbon films [1993, eng] **48-5020**
Safronova, I.N.
Flora of Bolshevik Island (Severnaya Zemlya archipelago) [1993, rus] **48-1633**
Safvan, C.P.
Electron impact ionization of H2O ice [1993, eng] **48-341**
Sage, J.D.
Cold start fueling strategy for spark ignition engines [1994, eng] **48-3091**
Frost action in a hydrophobic material [1993, eng] **48-4934**
Sai, T.
Application of a snow water mixture transport system for urban areas [1988, jpn] **48-561**
Making a snow mountain (application of a pipe transport system for snow water mixture) [1986, jpn] **48-35**
Snow removal system using existing roadside ditches [1986, jpn] **48-265**
Surface snow removal system by snow removal pipe [1986, jpn] **48-24**
Saichi, M.
Relation between snow and damage on external wall of reinforced concrete construction [1993, jpn] **48-1983**
Saint, S.R.
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems [1993, eng] **48-179**
Saito, A.
Experimental study on melting process of ice containing conductive copper solids [1993, eng] **48-894**
Saito, H.
Freezing of water in a closed circular tube [1993, eng] **48-868**
Simple compact snow melter [1986, jpn] **48-26**
Saito, K.
Pneumatic radial tire tread with rectangular blocks having side grooves [1991, eng] **48-1364**
Reduction of terrestrial gamma rays by snow cover [1990, jpn] **48-3675**
Saito, M.
Experiments on snow melting by sewage treatment water [1987, jpn] **48-551**
Saito, S.
Pneumatic radial tire tread with rectangular blocks having side grooves [1991, eng] **48-1364**
Saito, T.
Prediction of snow storms and snow accretion on power lines [1993, jpn] **48-3168**
Saitoh, H.
Effects of a porous medium in a flow passage with miter bend [1993, eng] **48-869**
Saitoh, T.S.
Super-time-saving numerical method for melting/freezing problem [1993, eng] **48-889**

Sakai, M.
Similarity between thermal ice ridge and plate tectonics [1993, eng] **48-1087**
Sakai, S.
Wave attenuation under ice cover [1993, eng] **48-180**
Wave deformation in ice covered water [1993, jpn] **48-1051**
Sakai, T.
Method of evaluating the cost of snow removal [1993, jpn] **48-3186**
Winter road surface control in the Hokuriku Region [1993, eng] **48-5082**
Sakai, Y.
Basic experiments on avalanche retarding structures [1988, jpn] **48-587**
Sakakibara, H.
Snowmobile [1989, eng] **48-4087**
Sakamoto, R.
Reduction of terrestrial gamma rays by snow cover [1990, jpn] **48-3675**
Sakamoto, Y.
Wet snow · odels for estimating snow load on power lines [1993, eng] **48-830**
Sakharov, I.I.
Acoustic inspection of thawing building foundations [1993, eng] **48-1916**
Sakly, M.
Ice sample heat transfer in a wind tunnel [1994, fre] **48-2574**
Sakurai, A.
Composite materials for arctic use [1993, jpn] **48-1041**
Sakurai, H.
Experiment on durability of lightweight concrete exposed in the Okhotsk Sea [1993, jpn] **48-1043**
Study of thermal distribution in concrete located in cold sea environment [1990, jpn] **48-4667**
Sakurai, K.
Solid particles in the snow crystal—on the ice nucleating ability of yellow sand [1991, jpn] **48-3420**
Sakurai, S.
Performance test of various tires on roads in snow and ice [1988, jpn] **48-563**
Sakuraoka, T.
One-dimensional model of the evolution of snow-cover characteristics [1993, eng] **48-2822**
Salamatin, A.N.
Theoretical studies on densification and relaxation of bubbly glacier ice [1993, eng] **48-2876**
Salbu, B.
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident [1993, eng] **48-4566**
Salikhova, D.Kh.
Mudflood activity in the foothills of Central Asia [1992, eng] **48-4408**
Salloum, J.E.
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season) [1993, eng] **48-5380**
Salm, B.
Flow, flow transition and runout distances of flowing avalanches [1993, eng] **48-2857**
Salmela, O.
Methods to map ice conditions, to measure ice properties and to quantify ice features [1993, eng] **48-177**
Oden-91 International Arctic Ocean Expedition. Travel report [1992, eng] **48-4894**
Sea ice profile laser measurements, Bay of Bothnia [1993, eng] **48-2007**
Salmi, P.
Ice flow behind an icebreaking vessel [1993, eng] **48-109**
Sal'nikov, P.I.
Regularities of perennially frozen ground forming in southern Zabaikalie [1993, eng] **48-530**
Salomonson, V.
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm [1993, eng] **48-2927**
Salonen, E.T.
Predictions of radiowave attenuations due to a melting layer of precipitation [1994, eng] **48-4645**
Saltzman, B.
Cenozoic ice sheet response to free CO_2 variations [1993, eng] **48-4197**
CO_2 and glacial cycles [1994, eng] **48-2912**
General theory of Plio-Pleistocene climatic change [1993, eng] **48-2808**
Heinrich-type glacial surges in a low-order dynamical climate model [1994, eng] **48-5370**
Saltzman, E.S.
Greenland ice core methanesulfonate records [1993, eng] **48-619**
Salusjärvi, M.
Winter maintenance and road safety [1993, eng] **48-1198**
Salway, R.A.
Wear element for a scraping operation [1993, eng] **48-1283**
Salyer, I.O.
Cement incorporating polymers as a phase change agent [1986, eng] **48-1520**
Polyolefin composites containing a phase change material [1991, eng] **48-1366**
Samarkin, V.A.
Methane and permafrost soil of the Kolyma-Indigir lowland [1993, eng] **48-1887**
Microbiological and biogeochemical research in permafrost: paleoecological implications [1993, eng] **48-518**
Sammelmann, G.S.
Biot-Stoll model of the high-frequency reflection coefficient of sea ice [1993, eng] **48-1375**
High-frequency forward scattering in the Arctic [1993, eng] **48-1374**
Samoilenko, V.N.
Low temperature effects on reinforced concrete tanks [1982, eng] **48-5391**
Samokhin, A.V.
Failure of frozen argillaceous rock in an aqueous medium [1993, eng] **48-2373**
Sampoli, M.
Molecular dynamics results for stretched water [1993, eng] **48-1620**
Samuels, C.
Sea ice-edge enhancement using polar-orbiting environmental satellite data [1993, eng] **48-314**
Samuels, J.
To salt or not to salt. What are the alternatives [1989, eng] **48-2043**
Samyshin, V.K.
Complex technology for preparation of perennially frozen placers to dredging [1993, eng] **48-525**
Sand, K.
ERS-1 SAR for snow monitoring [1993, eng] **48-1729**
Sandberg, B.S.
Bank recession of Lake Sakakawea, ND [1988, eng] **48-2083**
Sandberg, G.
Epiphytic lichens as indicators of snow depth [1994, eng] **48-4375**
Sanders, B.
Arctic sea ice sediment enrichment through frazil entrainment [1994, eng] **48-4053**
Sanderson, K.J.
Design and construction of short range radar stations in the Canadian Arctic [1994, eng] **48-3350**
Sandford, S.A.
Astrochemical implications of ice system condensation [1993, eng] **48-2919**
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io [1993, eng] **48-2997**
Organic molecule production in cometary ice analogs [1993, eng] **48-1751**
Spectroscopic detection of molecular hydrogen frozen in interstellar ices [1993, eng] **48-769**
Sandhäger, H.
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps [1993, eng] **48-4152**
Sandholm, S.
Tropospheric nitrogen species partitioning over Canada [1994, eng] **48-4632**
Sandven, S.
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92 [1993, eng] **48-131**
SIZEX 89—a prelaunch ERS-1 experiment: experiment report [1989, eng] **48-2631**
SIZEX'92 ERS-1 SAR ice validation experiment [1994, eng] **48-3464**
Sangolt, A.
Calibration of a portable ice strength testing apparatus [1993, eng] **48-91**
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992 [1993, eng] **48-129**
Sano, M.
Construction material for the new central building at Showa Station [1993, jpn] **48-2877**
Report of summer team of the 33rd JARE, 1991-92 [1992, jpn] **48-2444**
Sano, O.
Experimental study on roof snow melting system by bar-shaped carbon heater [1993, jpn] **48-1988**
Santarius, K.A.
Moss cryoprotection by natural and artificial substances [1993, eng] **48-1216**
Santer, B.D.
Atmospheric response to a hypothetical Tibetan ice sheet [1991, eng] **48-5320**
Santos-Pedro, V.M.
Case for harmonization of (polar) ship rules [1994, eng] **48-4293**
Sapegin, D.D.
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia [1994, eng] **48-3406**
Sapozhnikov, V.V.
Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991 [1992, eng] **48-2606**
Sarhan, F.
Cold-induced changes in plant freezing tolerance [1993, eng] **48-1758**
Sarin, M.M.
Chemical composition of Himalayan glacier ice [1993, eng] **48-1273**
Sarkissian, A.
Polar stratospheric cloud spectrometry in the Arctic [1994, eng] **48-5469**
Sarmiento, J.L.
Atmospheric carbon dioxide and the ocean [1993, eng] **48-334**
Sarraf, S.
Laboratory and numerical studies of ice release [1994, eng] **48-5540**
Sarukhanian, E.I.
Cooperation in Antarctica [1992, eng] **48-730**
Sasaguchi, K.
Effect of the orientation of a finned surface on the melting of frozen porous media [1994, eng] **48-2060**
Effects of fins on solution solidification [1994, eng] **48-4814**
Sasajima, T.
Regional development and the problems of sea ice in Hokkaido [1994, eng] **48-3993**
Sasaki, A.
Study on blowing snow countermeasures and traffic control [1986, jpn] **48-258**
Sasaki, I.
Auger for self-propelled snow removing machine [1990, eng] **48-2196**
Sasaki, K.
Snow-melting system on railway tracks using feed forward control [1992, eng] **48-2600**
Winter road-surface conditions and pavement problems in Hokkaido [1993, eng] **48-5084**
Sasaki, M.
Evaluation of the data measured by MSR related to snowpack parameter [1990, jpn] **48-4875**
Portable FM-CW radar for collecting the ground truth data of snowpack [1993, eng] **48-1723**
Steel/concrete composite walls for offshore ice protection [1986, eng] **48-5312**
Study on snow-water mixture flow in snow drain [1993, jpn] **48-1973**
Wind tunnel test for snowbreak forests along a highway [1993, jpn] **48-1972**
Sasaki, S.
Melting of snow with double effect of temperature and concentration [1993, eng] **48-2342**
Sasaki, Y.
Depth dependence of snow brightness temperature on sea ice [1993, eng] **48-1683**
Observation of the heat flux between atmosphere and ocean with remote sensing (I) [1990, eng] **48-4682**
Sassen, K.
Detection of liquid water content in supercooled clouds [1993, eng] **48-135**
Remote sensing of supercooled liquid water in a winter storm [1986, eng] **48-3260**
Sasso, M.
Gas engine driven heat pump: an excellent alternative in cold climate [1994, eng] **48-3853**
Sasyo, Y.
Prediction of snow storms and snow accretion on power lines [1993, jpn] **48-3168**
Satake, H.
Isotopic fractionation during grain coarsening of wet snow [1993, eng] **48-2840**
Säteri, J.
Cold climate HVAC '94 [1994, eng] **48-3841**
Sato, A.
Snowstorm guard fence structures and jet roofs [1990, eng] **48-2270**
Striped pattern of snowfall and snow cover [1993, eng] **48-2823**
Thermal conductivity of a dry snow cover [1993, eng] **48-2870**
Sato, K.
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea [1988, jpn] **48-1838**
Evaluation of accuracy for numerical sea ice forecast in the seas around Hokkaido [1990, jpn] **48-4681**
Ice forecasting in the southern Okhotsk Sea [1993, jpn] **48-1069**
Possibility of one-month forecast of sea ice [1993, jpn] **48-1068**
Roads in snowy and cold regions and bypass-type snow melting and removal drains [1988, jpn] **48-569**
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989 [1990, jpn] **48-4680**
Sato, M.
Study on the application of surface recycling methods [1993, eng] **48-5074**
Sato, N.
34th Japanese Antarctic Research Expedition in 1992-1994 [1993, jpn] **48-2434**
Changes and future topics for snow and cold weather operations in Aomori Prefecture [1987, jpn] **48-272**
Sato, S.
Design of a snow melting tank using treated wastewater [1994, eng] **48-5008**
Snowdrift countermeasures [1987, jpn] **48-546**
Synoptic observation of sea ice [1990, jpn] **48-4877**
Sato, T.
Effect of deicers in relation to meteorological conditions [1989, jpn] **48-704**

Field test of a new snow-particle counter (SPC) system [1993, eng] 48-2843
Snow removal on Gassan Mountain highway [1988, jpn] 48-558
Three dimensional numerical simulation of snowdrift [1993, eng] 48-1786
Winter on Sengan Highway [1989, jpn] 48-706

Sato, Y.
Development of a circulation-type snow removal drain system [1989, jpn] 48-705
Machines for feeder control in hydraulic transport of snow [1992, jpn] 48-3159
Snow blower arrangement [1992, eng] 48-4424

Satoh, K.
Direct indicator of hydrous content in deposited snow [1993, jpn] 48-1966
Hybrid generator with deposited snow cooling [1993, jpn] 48-1981

Satoh, S.
Radar echo patterns related to land breeze intensity [1992, jpn] 48-3211
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido [1992, jpn] 48-3212

Satosuo, P.
Pre-oiling system during cold-start of SI engine [1994, eng] 48-3087

Satow, K.
Chemical characteristics of snow in the region along the Sea of Japan [1993, eng] 48-2858

Saubert, R.
Ice certification of the Dornier 328 regional airliner [1991, eng] 48-3693

Saucet, J.P.
Full 2D calculation of ice generation, transport and buildup in natural rivers [1994, eng] 48-5539

Sauer, E.K.
Canadian till preconsolidation by glacial loading [1993, eng] 48-1220
Study of a glaciotectonic landform, Prince Albert, Saskatchewan [1993, eng] 48-1224

Saunders, A.
Glacial ice cores: a window on the past [1990, eng] 48-1877

Saunders, C.P.R.
Experimental investigation of the inductive mechanism of thunderstorm electrification [1994, eng] 48-4853
Thunderstorm electrification laboratory experiments and charging mechanisms [1994, eng] 48-4854

Saunders, I.R.
Evaluation of evaporation models for alpine tundra, British Columbia, Canada [1990, eng] 48-1571
Evaporation from alpine tundra in the Canadian Cordillera [1990, eng] 48-1570

Saurer, H.
Snow cover development on Potter Peninsula [1994, eng] 48-3482
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula [1994, eng] 48-3454

Savage, S.B.
Granular avalanche modeling pt.1 [1993, eng] 48-2501

Savel'ev, V.S.
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula [1993, eng] 48-419

Savikurki, J.
Azimuth thrusters in ice breaking technology [1993, eng] 48-110

Savin, S.M.
Climate change in continental isotopic records [1993, eng] 48-1494

Savin, V.K.
Heat transfer in translucent enclosed structures [1986, rus] 48-1288

Savitskii, V.A.
Forecasting of river bed deformations in the permafrost zone [1993, eng] 48-512

Savoie, D.L.
Chemical composition of antarctic aerosols [1993, eng] 48-42

Savoskul, O.S.
Holocene glacier variations in the Tian Shan [1994, eng] 48-4943

Sawada, K.
Study on snowdrift countermeasures in the Shonai region [1987, jpn] 48-545

Sawada, T.
Analysis of snowfall characteristics and various snow disasters in urban area [1993, jpn] 48-2003
Evaluating snow risk potential in urban areas [1993, jpn] 48-1980

Sawamoto, M.
Snow area detection by using AVHRR/NOAA [1993, eng] 48-1724
Snow cover evaluation with satellite data [1992, eng] 48-4447

Sawase, K.
Roof snow-melting system utilizing natural energy [1992, eng] 48-2601
Snow-melting system on railway tracks using feed forward control [1992, eng] 48-2600

Saxton, K.E.
Frozen soil infiltration defined by air permeability [1993, eng] 48-3836

Sayama, S.
Research developments in sophisticated automation technology for snow removal in cold regions [1989, jpn] 48-676

Sayed, M.
Experiments of crushing interaction between ice floes [1993, eng] 48-4357
Laboratory experiments of oil spreading in brash ice [1993, eng] 48-2689
Laboratory experiments of oil spreading in brash ice [1993, eng] 48-4360
Numerical simulations of mesoscale rheology of broken ice fields [1993, eng] 48-166
Proportional strain tests of fresh-water ice rubble [1993, eng] 48-2219
Stress distribution during ice indentation [1992, eng] 48-1539

Sazonov, A.V.
Altitude variations in ice formation zones on glaciers in Central Tien Shan [1992, rus] 48-1395

Sazonov, K.E.
Hydrodynamic problems of propellers for icebreaking ships [1993, eng] 48-120
Investigation into the effects of ice cover parameters upon ship resistance [1994, eng] 48-3950
Method for ship level ice resistance computation [1993, eng] 48-163

Scambos, T.A.
Complex ice stream flow revealed by sequential satellite imagery [1993, eng] 48-1319

Scavuzzo, R.J.
Influences of aerodynamic forces in ice shedding [1994, eng] 48-4829

Schaaf, C.B.
Alpine treeline growth variability [1993, eng] 48-936

Schachter, M.
Parameters influencing ice arch formation [1994, eng] 48-5623

Schaefer, J.
Evolution of a university ice lab: IIHR in ice [1992, eng] 48-1536

Schaefer, M.W.
Aqueous geochemistry on early Mars [1993, eng] 48-1100

Schaerer, P.
Avalanche handbook [1993, eng] 48-1945

Schaetzl, R.J.
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing [1993, eng] 48-2951

Schäfer, H.J.
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992 [1994, eng] 48-5467

Schall, C.
Gas chromatography of organic compounds in arctic seawater [1993, eng] 48-2049

Schardt, J.C.
Nutrient cycle constraints in alpine tundra communities [1993, eng] 48-2558

Scharsching, H.
Results of a field test of six different ice warning systems [1993, eng] 48-1204

Schaumann, K.
Thraustochytrid protists in antarctic fast ice? [1993, eng] 48-47

Schayes, G.
Katabatic wind simulation around Terra Nova Bay [1994, eng] 48-4066
Katabatic wind simulation in Terra Nova Bay area [1993, eng] 48-2139

Scheidt, D.
Valdez initiates sludge disposal operations [1993, eng] 48-1886

Schemmel, J.J.
High performance concrete for highway applications: field results [1993, eng] 48-2658

Schenk, W.
Development of stone mastic asphalt mixes for Ota io use [1993, eng] 48-5086

Schenke, H.W.
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf [1992, eng] 48-248
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis [1994, eng] 48-3444

Scherer, R.
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet [1993, eng] 48-3604

Schiavone, G.A.
H-polarized scattering from single and multiple elongated cavities [1993, eng] 48-2058

Schickel, K.P.
Aircraft icing in VMC below low stratus clouds [1993, eng] 48-856

Schierhorn, C.
NCMA and U.S. Army join forces to extend masonry work season [1993, eng] 48-2804

Schiller, C.
Ultraviolet actinic flux in the stratosphere [1994, eng] 48-5450

Schiller, C.L.
Exchange of nitrous oxide within the Hudson Bay lowland [1994, eng] 48-4613

Schimel, D.S.
Ecosystem and physiological controls over methane production in northern wetlands [1994, eng] 48-4612

Schipperges, B.
Snow cover effect on arctic lichen physiology [1992, eng] 48-343

Schlentner, R.E.
Climate of the Tanana River floodplain near Fairbanks, Alaska [1993, eng] 48-639

Schlesinger, M.E.
Model projections of CO_2-induced equilibrium climate change [1993, eng] 48-1566

Schlosser, P.
Ice Station Weddell (ISW) tracer-oceanography program [1992, eng] 48-3781

Schluessel, P.
Measuring precipitation over the ocean [1993, eng] 48-3645

Schmalz, A.
X-ray analysis of water chemisorbed on metal [1994, eng] 48-4979

Schmid, W.
Survey of rock glaciers in the Swiss Alps [1993, eng] 48-473

Schmidli, R.J.
Weather extremes [1991, eng] 48-3708

Schmidlin, T.W.
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon [1989, eng] 48-2336
Measurement of the water equivalent of snow on the ground [1993, eng] 48-2933

Schmidt, J.
Liquid solidification in forced flows in parallel plate channels [1993, eng] 48-861

Schmidt, N.P.
Flow in ice covered channels [1992, eng] 48-2654

Schmidt, R.A.
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes [1993, eng] 48-2966
Snowfall interception on branches of three conifer species [1991, eng] 48-1675
Snowfall into a forest and clearing [1989, eng] 48-1746
Use of fractal geometry in modelling intercepted snow accumulation and sublimation [1993, eng] 48-2921

Schmidt, S.
Electrostatic effects on saltating snow particles [1993, eng] 48-2859

Schmidt, S.K.
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks [1993, eng] 48-2957

Schmidt, T.
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta [1993, eng] 48-1832

Schmidt, U.
Some case studies of chlorine activation during the EASOE campaign [1994, eng] 48-5495
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE [1994, eng] 48-5444

Schminke, H.K.
Life in the cracks of antarctic sea ice [1993, eng] 48-1665

Schmitt, B.
Nitrogen ice spectra with application to Triton [1993, eng] 48-2381

Schmitt, E.
Effect of climatic changes on arctic permafrost environments [1993, eng] 48-451

Schmitt, J.M.
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo* [1993, eng] 48-1255

Schmitt, K.D.
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels [1994, eng] 48-4044

Schmok, J.
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia [1988, eng] 48-2364

Schneider, H.R.
Two-dimensional model of the stratosphere. 2. [1993, eng] 48-3637

Schneider, J.L.
1993 annual report on Alaska's mineral resources [1993, eng] 48-3330

Schneider, K.
Computer animation of Great Lakes water temperature [1993, eng] 48-3937

Schneider, W.
Greenland Sea polynya, pt.1 [1994, eng] 48-2914

Schnell, R.C.
Stable lead isotope ratios in Alaskan arctic aerosols [1993, eng] 48-3898

Schoeberl, M.R.
Evolution of ClO and NO along air parcel trajectories [1993, eng] 48-2579

MLS ClO observations and arctic polar vortex temperatures [1993, eng] 48-4642

Schoenmaker, A.A.
Polarimetric search for ice crystals in the upper atmosphere of Venus [1993, eng] 48-1213

Schofield, A.N.
Heave and settlement of soils in one freeze-thaw cycle [1993, eng] 48-5197

Scholten, H.
Snow distribution on crop fields [1988, eng] 48-1737

Scholten, J.
^{228}RA as a tracer for shelf water in the Arctic Ocean [1993, eng] 48-4544

Scholten, J.C.
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}PA [1993, eng] 48-4545

Scholz, T.V.
Wheel track rutting due to studded tires [1992, eng] 48-2088

Scholze, R.J.
Applying field-expedient bioreactors and landfarming in Alaskan climates [1994, eng] 48-4004

Schott, F.
Greenland Sea hydrography—winter 1988-89 [1993, eng] 48-224

Schrader, C.
Subsurface sensors for roads [1994, eng] 48-4918

Schreader, C.P.
Water loss from the floor of a subarctic forest [1994, eng] 48-4374

Schrems, O.
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic [1994, eng] 48-5479
Infrared spectroscopy of atmospheric trace gases above Spitsbergen [1994, eng] 48-5478
Spectroscopy of arctic polar night stratospheric gases [1993, eng] 48-1361

Schroeder, H.P.
Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture [1994, eng] 48-3353
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors [1994, eng] 48-3375

Schröter, J.
Hydrographic atlas of the southern ocean [1992, eng] 48-3766

Schrottenbacher, H.
Snow plough with collector [1993, eng] 48-4426

Schubert, C.
Arctic Ocean Pleistocene-Holocene sedimentation rates [1994, eng] 48-5641

Schuch, L.A.
Radioactivity levels in antarctic samples [1993, eng] 48-4537

Schuepp, P.H.
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland [1994, eng] 48-4611
On surface energy balance over the northern wetlands, pt.2 [1994, eng] 48-4616
Surface energy balance over northern wetlands, pt.1 [1994, eng] 48-4615

Schuler, O.
Icebreaker [1989, eng] 48-4085

Schuller, P.
^{137}Cs areal concentration in two sites in the Southern Shetland Islands [1993, eng] 48-4536

Schulson, E.M.
Brittle compressive failure of salt-water columnar ice under biaxial loading [1994, eng] 48-5163
Cracking of ice during rapid unloading [1994, eng] 48-2748
Ductile to brittle transition in polycrystalline ice under compression—final report [1993, eng] 48-1275
Failure modes in compressed ice [1994, eng] 48-5584
Failure of fresh-water granular ice under multiaxial compressive loading [1994, eng] 48-5588

Schultz, A.
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC) [1993, eng] 48-327

Schultz, L.A.
Infrared heater anti-icing system tests [1993, eng] 48-4122
Operational performance of the RV *Nathaniel B. Palmer* [1994, eng] 48-4308

Schulz, G.
Andean cirque floors as Pleistocene equilibrium indicators [1991, ger] 48-3650

Schumacher, J.D.
Bering Sea continental shelf circulation [1993, eng] 48-1279

Schutte, W.A.
Organic molecule production in cometary ice analogs [1993, eng] 48-1751

Schwander, J.
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland [1994, eng] 48-5335
GRIP deep drilling camp [1994, eng] 48-5362

Schwarz, J.
Evaluation and improvement of icebreaker performance [1994, eng] 48-4296

Schwarz, W.
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal [1993, eng] 48-2797

Schweger, C.E.
Old Crow tephra in dating of the Wisconsinan climate history [1985, eng] 48-2728
Paleoclimatic implications of Canadian Pleistocene stratigraphy [1993, eng] 48-972

Schweiger, A.J.
Algorithm to improve satellite imagery of sea ice distribution [1989, eng] 48-2670
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986 [1993, eng] 48-3537
Comparison of two satellite-derived albedo data sets for the Arctic Ocean [1993, eng] 48-1805
Mapping sea ice leads with a coupled numeric/symbolic system [1990, eng] 48-2427
Monitoring sea ice flux through Fram Strait [1994, eng] 48-3450
Sea ice-atmosphere interaction and surface energy flux [1993, eng] 48-2641

Schweikhard, W.G.
Glycol ice protection system on a general aviation airfoil [1981, eng] 48-1142

Schweizer, J.
Snow layers as avalanche triggers [1993, eng] 48-2851

Schwikowski, M.
Atmospheric constituents in high alpine ice cores [1994, eng] 48-2717

Schwitter, M.P.
Changes in the longitudinal profiles of glaciers during advance and retreat [1993, eng] 48-3584

Schytt, V.
Glacier of Sweden [1993, eng] 48-4031

Sciortino, F.
Phase diagram for amorphous solid water [1993, eng] 48-2523

Scott, R.F.
Evaluation of ERS-1 radar altimeter over non-ocean surfaces [1994, eng] 48-4695

Scuderi, L.A.
Alpine treeline growth variability [1993, eng] 48-936

Searcy, C.
Influence of the hydrologic cycle on the extent of sea ice with climatic implications [1993, eng] 48-319

Sears, D.W.G.
Meteorite thermoluminescence and ice movement in the Elephant Moraine region [1992, eng] 48-2616

Sears, H.
Meteorite thermoluminescence and ice movement in the Elephant Moraine region [1992, eng] 48-2616

Sears, J.S.
Amelioration of ice layer effects on spectroscopic detector performance [1993, eng] 48-1012

Sears, V.F.
Lattice dynamics of clathrate hydrates [1993, eng] 48-2350
Low-frequency modes in amorphous ice [1994, eng] 48-5025

Seasonal snowfall statistics for selected stations
Seasonal snowfall statistics for selected stations [1988, eng] 48-3495

Seastedt, T.R.
Short- and long-term patterns of soil moisture in alpine tundra [1994, eng] 48-3502

Secchieri, F.
Contributions of Val d'Ultimo glaciers to basin water supply [1993, ita] 48-4110

Secrecy under the ice frustrates global warming studies
Secrecy under the ice frustrates global warming studies [1990, eng] 48-1503

Sedel'nikov, V.P.
Anthropogenic transformation of the vegetation cover of Western Siberia [1992, rus] 48-4151
Plant resources of Siberia: their contemporary state and protection [1994, eng] 48-2479

Sedel'nikova, N.V.
Lower plant resources of Siberia and their use [1994, eng] 48-2480

Sedov, B.M.
Geophysical methods of cryology ecological monitoring [1993, eng] 48-5235

Sedov, E.I.
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone [1992, rus] 48-186

Seeber, G.
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf [1992, eng] 48-248
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis [1994, eng] 48-3444

Seebohm, T.
Rule-based assembly of architectural details for cold climates in three-dimensions [1994, eng] 48-3882

Seel, W.E.
Transpiration of sub-arctic parasitic angiosperms [1994, eng] 48-5419

Seglenieks, F.
Modeling of snowmelt runoff in Ontario from SAR data [1993, eng] 48-2969

Sego, D.C.
Cold regions engineering: "A global perspective" [1994, eng] 48-3347
Distribution of saline permafrost in the Northwest Territories, Canada [1993, eng] 48-1015
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape [1994, eng] 48-3391
Grouted pile displacement in saline frozen soils [1994, eng] 48-4839
Study of the mechanical properties of spray ice [1994, eng] 48-5564
Time dependent displacement of piles in saline permafrost [1993, eng] 48-357

Seguin, M.K.
Effect of physical properties of frozen ground on electrical resistivity logging [1994, eng] 48-5113
Monitoring thawing front movement by self-potential measurement [1993, eng] 48-383
Permafrost ice content in Quebec [1990, eng] 48-2544
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway [1993, chi] 48-4393
Semi-quantitative geophysical investigation of permafrost in northern Québec [1994, eng] 48-4820

Seidel, K.
Operational snow cover mapping by satellites and real time runoff forecasts [1993, eng] 48-2779
Snowmelt runoff forecasting studies in Himalayan basins [1993, eng] 48-2775

Seifritz, W.
Terrestrial storage of CO2-dry ice [1993, eng] 48-606

Seinä, A.
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea [1994, eng] 48-3467
Periodic Finnish coastal sea ice conditions [1994, fin] 48-4948

Seiss, G.
Hydrographic atlas of the southern ocean [1992, eng] 48-3766

Seiss, T.
Ice sheet topography from retracked ERS-1 altimetry [1994, eng] 48-3441

Sejrup, H.P.
Late Weichselian glaciation history of the northern North Sea [1994, eng] 48-4945

Seki, N.
Freezing of water in a closed circular tube [1993, eng] 48-868

Sekikawa, S.
Wooden bracing and wall length for a snow-proof house [1993, jpn] 48-1998

Seko, K.
Biotic acceleration of melting in Yala Glacier [1993, eng] 48-2795
Disintegrating ice front of Shirase Glacier, East Antarctica [1993, eng] 48-1061
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal [1993, eng] 48-2781
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images [1993, eng] 48-1300

Sekretareva, N.A.
Characteristics of shrubby willow associations in wet and moist habitats (eastern Chukotskiy Peninsula) [1992, rus] 48-1625
Comparative characteristics of the flora in the vicinity of Penkigney Bay and neighboring territories [1993, rus] 48-4223

Selby, T.W.
Scanning analysis of low-temperature lubricant gelation [1991, eng] 48-3932

Self, S.
Volcanic winter and accelerated glaciation following the Toba super-eruption [1992, eng] 48-1507

Seliga, T.A.
PC-based simulation code for radar polarimetric field applications in meteorology [1993, eng] 48-1682

Selikhanovich, V.V.
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles [1993, rus] 48-2495

Selim, H.M.
Modeling the transport of heavy metals in soils [1990, eng] 48-3493

Selin, R.
Simulated climatic changes: results of the COHMAP climate-model experiments [1993, eng] 48-2977

Seliverstov, V.I.
Experimental study of ice-cylindrical pile interaction [1993, eng] 48-4317

Selkirk, J.M.
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island [1993, eng] 48-940

Sellers, W.D.
Climate model response to solar constant reduction [1993, eng] 48-2513

Sellier, D.
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock [1993, fre]

48-2671

Selters, A.
Glacier travel and crevasse rescue [1990, eng] 48-1934

Seltzer, G.O.
Climatic interpretation of alpine snowline variations on millennial time scales [1994, eng] 48-5063
Lacustrine record of late Pleistocene climatic change in the subtropical Andes [1994, eng] 48-4984

Selvadurai, A.P.S.
Frost heave induced mechanics of buried pipelines [1993, eng] 48-2330

Semb, A.
Experimental Norwegian alpine watershed acidification [1994, eng] 48-3622

Semechkin, I.V.
Forest resources of Siberia [1994, eng] 48-2481

Semenov, A.
Impact of Chernobyl accident on the Kola Peninsula radiation conditions [1993, eng] 48-4560

Semenov, A.IU.
Vortex flows near the sea ice edge [1993, eng] 48-4216

Semenov, V.
Construction in polar regions using local raw materials [1994, eng] 48-3948

Semenova, G.P.
Caryopteris mongholica (Verbenaceae)—rare species of Siberian flora: its biology and introduction [1993, rus] 48-1631

Semenova, I.V.
Atlas of the energy balance of the northern polar area [1992, rus] 48-1479

Semenova, T.N.
Questions on the preservation of frozen straw-colored soils [1988, rus] 48-911

Semiletov, I.P.
Paleovariations of atmospheric composition in ancient ice core air bubbles [1993, rus] 48-3566

Senear, E.
Variegated Glacier, 1973-1981. Data file report-1981 [1988, eng] 48-3331

Sengoku, M.
SAR detection of snow-covered objects [1994, eng] 48-5135

Senken Steel Company
Road shoulder windbreak fences and snow cornice prevention fences [1986, jpn] 48-36

Sen'ko, N.P.
First Soviet-American oceanographic expedition in the Chukchi Sea (CHOEX/ICE-90) [1992, eng] 48-737
Formation of extremely severe ice conditions in the Labrador Sea in winter 1990/1991 [1992, eng] 48-734

Senkuro, K.
Development of a method for predicting snowfall intensity and compacted snow on roads [1993, jpn] 48-1852

Senneset, K.
Cast in place concrete piles in permafrost [1993, eng] 48-439
Use of fresh concrete for piles in permafrost [1994, eng] 48-3352

Senstad, P.
Steel reinforcements in asphalt pavements [1994, eng] 48-4915

Senti, T.E.
Winter highway maintenance data, Vol.2 [1993, eng] 48-1847

Sepehr, K.
Asphalt concrete low temperature performance [1992, eng] 48-2413
Thermally induced stresses in asphalt concrete pavement [1993, eng] 48-5069

Sephton, A.J.
Segmentation of synthetic-aperture radar imagery of sea ice [1994, eng] 48-4034

Seppälä, M.
Peat mounds in Canadian permafrost [1988, eng] 48-2565
Stone roundness of moraines connected with Taku Glacier, southeastern Alaska [1976, eng] 48-1465

Seppänen, O.
Lessons from Indoor Air '93 for cold climate [1994, eng] 48-3843

Seppelt, R.D.
New alga of red snow in the Windmill Is. region [1993, eng] 48-770
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island [1993, eng] 48-940

Serandrei Barbero, R.
Italian glacier surface variations from LANDSAT data [1993, ita] 48-4111

Serdiuk, O.F.
Increasing the reliability of a nuclear icebreaker steam-turbine plant with a closed air-water cooling system [1992, rus] 48-751

Sergeev, I.P.
Ecological aspects of the development of the hydroenergy potential of the cryolithozone [1992, rus] 48-4780

Sergent, C.
Experimental investigation of optical snow properties [1993, eng] 48-1336

Sergutin, V.E.
Hydraulics of timber rafting and navigable rivers in Siberia [1993, rus] 48-5268

Serrat, D.
Glaciers of the Pyrenees, Spain and France [1993, eng] 48-4029

Serreze, M.C.
Arctic sea ice snow cover/boundary layer dynamics [1993, eng] 48-1344
Arctic sea ice-climate system: observations and modeling [1993, eng] 48-2507
Comparison of two satellite-derived albedo data sets for the Arctic Ocean [1993, eng] 48-1805

Servant-Vildary, M.
Planktonic primary productivity in an Icelandic lake [1993, eng] 48-942

Seto, J.T.C.
Pore pressure measurements during clay silt freezing [1994, eng] 48-5110

Setojima, M.
Forecasting snowmelt volume from remote sensing data [1993, eng] 48-1681

Sevast'ianova, N.V.
Ice formation on Ladoga Lake and its short term forecast [1992, rus] 48-1951

Severskii, E.V.
Studying columnar ice [1992, rus] 48-4462

Severskii, I.V.
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan [1992, rus] 48-4452

Severskii, S.I.
Distribution of snowpack in a mountain basin and the effect of underlying surface factors on it [1992, rus] 48-4466
Experiment in analyzing the effect of local factors on the distribution of snow cover in mountains [1992, rus] 48-4465

Sevruk, B.
Snow cover measurements and areal assessment of precipitation and soil moisture [1992, eng] 48-4009

Sexton, D.D.
Study of glacial runoff regime in central Tien Shan during 1989-1990 [1993, eng] 48-4573

Shabtaie, S.
Mass balance measurements on Ice Stream B, Antarctica [1993, eng] 48-3573

Shackleton, N.J.
Simulation of the climate of the last 200 kyr with the LLN 2D-model [1993, eng] 48-4196

Shah, K.R.
Two-dimensional frost-heave model for buried pipelines [1993, eng] 48-2750

Shakirov, R.M.
Laying arctic gas pipeline across Baidaratskaya Gulf [1993, eng] 48-4314

Shalamianskii, A.M.
Features of the variations in total ozone over the North Atlantic in summer [1993, rus] 48-2489
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere [1993, rus] 48-2490
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986 [1993, rus] 48-2484

Shamakhov, A.F.
Characteristics of relict permafrost on the West Siberian plain [1993, eng] 48-3761

Shamanova, I.I.
Ecological and geocryological classification of western Siberia [1993, eng] 48-5194
Permafrost along the Yamal Peninsula gas pipeline [1993, eng] 48-5193

Shanableh, M.
Radar backscatter signatures of thin sea ice in the central Arctic [1994, eng] 48-4648
Young sea ice signatures in the deep arctic during the fall freeze-up [1993, eng] 48-1687

Shang, S.C.
Simulation of daily runoff in the Urumqi River basin with the improved tank model [1990, eng] 48-1598

Shankov, V.V.
Model of frost heaving in cryogenic soils [1993, eng] 48-386

Shao, L.J.
Study and development of the techniques against frost damage of hydraulic structures [1993, eng] 48-5254

Shapiro, L.
Ice conditions on Alaska's Beaufort Sea Coast: extending the observations [1979, eng] 48-4142

Shaporina, N.A.
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems) [1993, eng] 48-2297

Sharkhuu, A.
Permafrost in the Selenge River basin (on the Mongolian territory) [1993, eng] 48-5236

Sharma, C.K.
Glacier lakes and outburst floods in the Nepal Himalaya [1993, eng] 48-2796

Sharma, K.P.
Role of meltwater in major river systems of Nepal [1993, eng] 48-2778

Sharma, R.E.
Freezing in a laminar region of a parallel plate duct [1993, eng] 48-862

Sharma, S.K.
Ice/solid adhesion analyzed with Raman microprobe [1993, eng] 48-2048

Sharp, D.R.
Ice sheet dynamics inferred from glaciofluvial sedimentology [1993, eng] 48-1218

Sharp, M.
Character, structure and origin of the basal ice layer of a surge-type glacier [1994, eng] 48-5169

Sharp, M.J.
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff [1993, eng] 48-1775
Water balance of a Norwegian glacier, pt.1 [1991, eng] 48-3655
Water balance of a Norwegian glacier, pt.2 [1991, eng] 48-3656
Weertman regelation at the glacier bed [1993, eng] 48-2391

Sharpe, D.R.
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories [1992, eng] 48-3934

Sharratt, B.S.
Barley evapotranspiration in the subarctic [1994, eng] 48-5007
Freeze-thaw and winter temperature of agricultural soils in interior Alaska [1993, eng] 48-2737

Shartran, M.J.
Bibliographic data file of WDC-A [1978, eng] 48-2981
Results of a survey on WDC-A activities [1978, eng] 48-2982

Shatalina, I.N.
On the problem of reservoir freezeover [1992, eng] 48-1548
River ice and the water quality in hydropower plant reservoirs [1994, eng] 48-5552

Shaw, D.L.
Design and use of living snow fences in North America [1988, eng] 48-1736

Shaw, G.E.
Halogens in aerosols in central Alaska [1993, eng] 48-3910
Snows of interior Alaska [1993, eng] 48-2082

Shaw, J.
Implication of tunnel channels for ice sheet hydrology [1994, eng] 48-5139

Shaw, J.A.
Snows of interior Alaska [1993, eng] 48-2082

Shaw, M.A.
History of Hobson's Choice Ice I. [1993, eng] 48-898

Shaw, P.G.
Effect of soil freezing on particulate resuspension [1988, eng] 48-3919

Shaw, R.
Structural characteristics of antarctic land-fast sea ice [1993, eng] 48-2385

Shaw, R.A.
Snows of interior Alaska [1993, eng] 48-2082

Shayler, P.J.
Cold start fueling strategy for spark ignition engines [1994, eng] 48-3091
Improving the cold start of spark ignition engines [1994, eng] 48-3090
Use of vehicle drive cycles to assess spark plug fouling performance [1994, eng] 48-3102

Shcherbakov, F.A.
Problems of the geomorphology of glaciated shelves [1993, eng] 48-2539

Sheaffer, M.K.
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea [1993, eng] 48-4517

Shearer, R.G.
Synopsis of research conducted under the 1992/93 Northern Contaminants Program [1993, eng] 48-1809

Sheikin, I.B
Impact loads of drifting ice floes on artificial islands [1993, eng] 48-147

Sheinberg, R.
Ice impact load measurement aboard the icebreaker *Oden* [1994, eng] 48-4291

Sheinin, D.A.
General technique for the calculation of formation conditions of natural gas hydrates [1993, eng] 48-346

Sheinstein, A.S.
Solar energy potentialities and prospects in Antarctica [1993, rus] 48-3568

Shen, G.R.
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River [1994, eng] 48-5600

Shen, H.H.
Effect of waves on pancake ice collisions [1993, eng] 48-4349
Response of distinct ice floes to ocean gravity waves [1994, eng] 48-5563

Shen, H.T.
Arctic sea ice sediment enrichment through frazil entrainment [1994, eng] 48-4053
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] 48-4323
Mathematical model for oil slick transport and mixing in rivers [1993, eng] 48-724
Modeling oil spills in a river-lake system [1994, eng] 48-3619
Numerical simulation of ice jam progression in the upper Niagara River [1994, eng] 48-5610
Surface ice transport through a river bend [1992, eng] 48-3789
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River [1994, eng] 48-5611

Shen, K.
Initial study of railplugs as an aid for cold starting of diesels [1994, eng] 48-3104

Shen, M.
Frost heave simulation with segregation potential concept [1993, eng] 48-452

Shen, Z.Y.
Determining strength of frozen soil with radial-split method [1992, chi] 48-1418
Dynamic strength and deformation properties of saturated frozen silt [1993, chi] 48-1447
Influence of various factors on dynamic elastic modulus of frozen silt [1992, chi] 48-1420
Introduction of software used for experiment of mechanics of frozen soil [1993, chi] 48-1455
Primary research of determining strength of frozen soil with axial-split method [1993, chi] 48-1446
Strength characteristic of frozen sandy soil [1993, chi] 48-1445
Uniaxial stress relaxation of frozen loess [1992, chi] 48-1415

Sheng, D.C.
Frost protection for road construction in cold regions [1994, eng] 48-3953

Sheng, Y.
Calculation of frost heave in saturated soil under constant surcharge [1994, eng] 48-3395
Change of pore ice and ice phase stress during the creep process of frozen soil [1993, chi] 48-1440
Creep and creep strength of frozen soil [1993, chi] 48-1441
Frost susceptibility of powdered calcium carbonate [1993, eng] 48-5198
Model of migration potential for moisture migration during soil freezing [1993, eng] 48-453
Model of migration potential for moisture migration during soil freezing [1992, chi] 48-1413

Sheng, Z.Y.
Uniaxial stress relaxation of frozen loess [1993, eng] 48-5250

Shepelev, V.V.
Understanding the "cryolithosphere" and the dynamics of its development [1992, rus] 48-4775

Sheppard, C.G.W.
Experimental study of warm-air defrosting of heat-pump evaporators [1993, eng] 48-3198

Sheppard, J.D.
Evaluation of antifreeze solutions for use in ice builders [1993, eng] 48-4249

Sheppard, L.J.
Influence of acidic mist on spruce frost hardiness, pt.1 [1993, eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2 [1993, eng] 48-4281
Spruce frost hardiness correlated to acid rain and mist [1994, eng] 48-5420

Shereshevskii, A.I.
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine [1993, rus] 48-2075

Sheridan, M.F.
Hazard assessment of slopes on an ice-capped Mexican volcano [1993, eng] 48-3232

Sheridan, P.J.
Brominated aerosols and arctic ozone destruction [1993, eng] 48-3896

Sherif, S.A.
Frost formation and heat transfer on circular cylinders in cross-flow [1993, eng] 48-2155
Semi-empirical transient method for modelling frost formation on a flat plate [1993, eng] 48-3200

Sherwin, T.J.
Amplification of tidal currents by overflow on the Iceland- Faeroe Ridge [1994, eng] 48-3944

Sheshukov, A.E.
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass [1993, eng] 48-2449

Shesternev, D.M.
Deformation of thawing dispersed large detrital rocks of cryolite zone [1993, eng] 48-5237

Shevchuk, V.G.
Dumping formation method using alternating layers of rock and ice [1992, eng] 48-5534

Shi, J.C.
Deriving snow liquid water content using C-band polarimetric SAR [1993, eng] 48-1705
Dry snow parameter stereology for microwave modeling [1993, eng] 48-1338
Measurements of snow- and glacier-covered areas with single- polarization SAR [1993, eng] 48-1302
Modeling and observation of polarimetric SAR response to dry snow [1993, eng] 48-1706
Snow mapping in alpine regions with synthetic aperture radar [1994, eng] 48-5136
Snow wetness retrieval algorithm for SAR [1992, eng] 48-3284

Shi, J.Y.
Moisture migration and temperature field during pavement freezing [1993, chi] 48-4580

Shi, Y.F.
Geography meetings, research, and education in the United States [1993, chi] 48-4570

Shi, Z.F.
Improving of microwave remote sensing of sea ice [1993, eng] 48-1715

Shia, R.L.
Two-dimensional model of the stratosphere. 2. [1993, eng] 48-3637

Shibata, M.
Current status and study topics for the dissemination of road traffic information [1986, jpn] 48-255

Shibata, O.
Physiological changes in alpine snowbed plants in Japan [1993, eng] 48-939

Shibayama, M.
Attempt at spectral detection of phenological changes of boreal vegetation [1994, eng] 48-4998

Shibuya, K.
Road heating in Sapporo City [1989, jpn] 48-703
Snowfall forecasting system in Sapporo City [1989, jpn] 48-670
Thinning rate of ice sheet on Mizuho Plateau [1992, eng] 48-919

Shields, D.H.
Creep effects on a laterally loaded pile [1993, eng] 48-377

Shifrin, K.S.
Small-angle light scattering by crystalline particles within clouds [1989, eng] 48-1474

Shifrin, S.A.
Using dry mixtures for concreting extended constructions on a frozen foundation [1992, rus] 48-1392

Shigematsu, S.
Model tests of a small icebreaker [1994, eng] 48-4298

Shih, L.Y.
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity [1993, eng] 48-3115

Shilkrot, E.O.
Aerodynamic protection of premises against cold through apertures [1994, eng] 48-3865

Shillington, E.I.
Safe water for villages of the North Slope Borough [1994, eng] 48-3376

Shilstone, J.M., Jr.
High performance concrete mixtures for durability [1993, eng] 48-2659

Shilstone, J.M., Sr.
High performance concrete mixtures for durability [1993, eng] 48-2659

Shilts, W.W.
Canadian contributions to glacial sedimentology [1993, eng] 48-344

Shimada, M.
Durable surface coatings for rubber articles e.g. wiper blades and seal packings [1993, eng] 48-5523

Shimazaki, K.
Field performance of porous asphalt pavement in cold areas [1993, eng] 48-5085

Shimizu, K.
Indoor test of ice and snow tires on iced drum tester [1992, jpn] 48-1850

Shimizu, M.
Measurement of atmospheric radiation for winter road management [1993, eng] 48-1206
Snow adhesion to roof sheets at sub-freezing temperatures [1992, jpn] 48-3165

Shimizu, N.
Powered snowplow [1991, eng] 48-2246

Shimmield, G.
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms [1993, eng] 48-4540

Shimomura, C.
Basic experiments on avalanche retarding structures [1988, jpn] 48-587

Shimotsuma, I.
Snow removal plan for sidewalks and snowy roads in Shibata City [1989, jpn] 48-701

Shin, C.C.H.
Cryoprotectant composition [1993, eng] 48-1281
Cryoprotectant composition [1989, eng] 48-1876

Shin, J.G.
Propagation of continuum damage in a viscoelastic ice bar [1994, eng] 48-4838

Shin, J.W.
Low power deicer tests on a swept inlet component [1993, eng] 48-4880
Prediction of ice shapes and their effect on airfoil drag [1994, eng] 48-4062
Surface roughness due to residual ice in the use of low power deicing systems [1993, eng] 48-4881

Shin, R.T.
Model for remote sensing of anisotropic layers [1993, eng] 48-2408
Third Stokes parameter emission from a periodic water surface [1993, eng] 48-2109

Shinbori, K.
Experiment on ice cutting under high liquid pressure and low temperature [1994, eng] 48-5338

Shinde, S.B.
Frost heave induced mechanics of buried pipelines [1993, eng] 48-2330

Shindell, D.T.
Nitrous oxide as an indicator of arctic vortex dynamics [1994, eng] 48-5459
Spectroscopy of chlorine monoxide in the Greenland atmosphere [1994, eng] 48-5458

Shindler, D.R.
Microelements in soils of southern Yakutia [1992, rus] 48-4146

Shindo, K.
Problems of slope protection latticeworks in cold regions [1988, jpn] 48-562

Shine, K.P.
One-dimensional study of possible cirrus cloud feedbacks [1994, eng] 48-2890
Studies of the radiative properties of ice and mixed-phase clouds [1994, eng] 48-2592

Shinjo City Construction Department
Current status of the snowy region [1986, jpn] 48-23

Shinohe, H.
Relation between snow and damage on external wall of reinforced concrete construction [1993, jpn] 48-1983

Shinojima, K.
Development trends in snow melting devices using heat pumps [1988, jpn] 48-658
Estimating the weight of a snow cover using only meteorological factors [1993, eng] 48-2850

Shinya, M.
Effect of algaeic methanes on atmospheric ozone [1994, eng] 48-4157

Shio, H.
Charging of snow particles in blizzard [1991, eng] 48-3681

Shipham, M.C.
Meteorological interpretation of ABLE flight series [1994, eng] 48-4619

Shipko, IU.E.
Nevada—Novaya Zemlya [1992, rus] 48-1268

Shiraishi, S.
Winter cities NOW [1989, jpn] 48-713

Shiraiwa, T.
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya [1993, eng] 48-4641
Precipitation environment in the Langtang Valley, Nepal Himalayas [1993, eng] 48-2786
Report of pit-wall observations of snow cover in Sapporo 1991-92 [1992, jpn] 48-3152
Rock surface temperatures in the high altitude region of the Nepal Himalaya [1992, eng] 48-3156
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas [1993, eng] 48-2792

Shirakashi, M.
Development of a snow-fraction meter based on the conductometric method [1993, eng] 48-2828
Hydraulic conveying of snow and ice—development of a snow- fraction meter [1993, jpn] 48-3184
Hydraulic transport of snow by pipe [1986, jpn] 48-32

Shirasawa, K.
Atmospheric and oceanographic studies in Lake Saroma [1993, eng] 48-1073
Boundary layer under landfast ice in Hudson Bay (IV) [1992, jpn] 48-3213
Pack ice off Hokkaido, Jan.-Apr. 1992 [1992, jpn] 48-3157
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin [1993, eng] 48-1047
Turbulence measurements under landfast ice in the high Canadian Arctic [1993, eng] 48-1081

Shirikov, B.A.
Method of determining the stress of local flow in areas of stress concentration at low climatic temperatures [1990, rus] 48-61

Shirono, K.
Experiments of snow drift around the snow fences with model snow [1993, jpn] 48-1971

Shishkin, V.IA.
Design of piles in swelling soils [1990, eng] 48-1387

Shkhinek, K.N.
Design codes for arctic offshore structures [1994, eng] 48-3024

Shkodkin, A.V.
Universal characteristic of ice-forming nuclei [1992, eng] 48-3765

AUTHOR INDEX

Shleimovich, R.E.
Handbook of experimental data on the solubility of multicomponent water-saline systems [1953, rus] **48-1290**
Shmarova, I.N.
Method of long range forecasting of freezeup on rivers in Kazakhstan [1992, rus] **48-1953**
Shoba, S.A.
Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils [1993, eng] **48-2292**
Shoji, H.
Air clathrate hydrates in antarctic ice [1993, eng] **48-3943**
Crystal growth rates in polar firn [1993, eng] **48-2854**
Ice core processing at Dome F, Antarctica [1994, eng] **48-5355**
Transformation process observations of polar firn to ice [1993, eng] **48-2852**
Shokr, M.E.
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence [1994, eng] **48-3471**
Shook, K.
Geometry of patchy snowcovers [1993, eng] **48-2932**
Temporal variation in snowcover area during melt in prairie and alpine environments [1993, eng] **48-1157**
Shoop, S.A.
Effect of soil thaw on off-road vehicle traction [1993, eng] **48-454**
Experimental method for vehicle mobility research on freezing/thawing soil [1993, eng] **48-1163**
Snow characterization for traction testing: a survey of techniques used [1993, eng] **48-1177**
Terrain characterization for trafficability [1993, eng] **48-718**
Thawing soil strength measurements for predicting vehicle performance [1993, eng] **48-3824**
Three approaches to winter traction testing [1993, eng] **48-3489**
Three approaches to winter traction testing using instrumented vehicles [1994, eng] **48-3105**
Viscosity measurements on very wet soils [1993, eng] **48-1174**
Winter traction testing using three different instrumented vehicles [1993, eng] **48-757**
Short, S.
Paleoecology of Quebec and northern Labrador [1976, eng] **48-3295**
Showa Aluminum Corporation
Icing-preventing coating film for cooling plate [1993, eng] **48-4430**
Shpaikher, A.O.
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean [1980, rus] **48-1913**
Shpil'rain, E.E.
Solar energy potentialities and prospects in Antarctica [1993, rus] **48-3568**
Shpolianskaia, N.A.
Cryolithozone as an indicator of current climate change (Western Siberia) [1992, rus] **48-4777**
Massive ice beds of western Siberia: structure and history in Pleistocene [1993, eng] **48-531**
Shroba, R.R.
Properties of glacial deposits in Wyoming mountain soils [1993, eng] **48-2421**
Shubin, G.V.
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks [1994, eng] **48-3991**
Shubina, M.A.
Studying snow cover from radar images [1993, eng] **48-3933**
Shuchman, R.A.
Arctic sea ice microwave signature and geophysical processes study [1993, eng] **48-1693**
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery [1993, eng] **48-1689**
Extraction of marginal ice zone thickness using gravity wave imagery [1994, eng] **48-2810**
Extraction of marginal-ice-zone thickness using gravity wave imagery [1993, eng] **48-1688**
Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92 [1993, eng] **48-1695**
Optical properties for sea ice measured during LEADEX '92 [1993, eng] **48-1703**
SSM/I sea ice products validation [1991, eng] **48-3670**
Shugaev, V.F.
Stratiform cloud structure at negative temperatures [1992, eng] **48-1765**
Shugart, H.H.
Forest-tundra transition zone in northeastern Canada [1994, eng] **48-5125**
Shukurova, L.M.
Arctic aerosol molecular composition from measurements on Wrangel Island [1993, eng] **48-1755**
Shumakher, D.A.
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea [1992, rus] **48-2742**
Shuman, C.A.
Greenland hoar formation indicated by brightness temperatures [1993, eng] **48-4653**
Radiometry of surface hoar on the Greenland ice sheet [1993, eng] **48-1320**
Shur, IU.L.
N-factor maps of Russian permafrost region [1993, eng] **48-455**
Shurova, I.E.
Modeling the impact of a snow avalanche on a structure: an experimental investigation [1994, eng] **48-2469**
Shushlebin, A.I.
Impact loads of drifting ice floes on artificial islands [1993, eng] **48-147**
Shutov, V.A.
Calculation of snowmelt [1993, eng] **48-5296**
Shyam Sunder, S.
Anisotropic elasticity of polycrystalline ice I(h) [1994, eng] **48-3250**
Ice/solid adhesion analyzed with Raman microprobe [1993, eng] **48-2048**
Numerical modeling of transient creep in polycrystalline ice [1993, eng] **48-924**
Siani, A.M.
Hundred year trends of Italian air temperature and snow accumulation [1993, ita] **48-4106**
Sibilio, S.
Gas engine driven heat pump: an excellent alternative in cold climate [1994, eng] **48-3853**
Sickman, J.
Estimating total snow volume in a small alpine watershed [1993, eng] **48-2945**
Sideris, T.
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic [1993, eng] **48-3911**
Siebe, C.
Hazard assessment of slopes on an ice-capped Mexican volcano [1993, eng] **48-3232**
Siegel, M.
Granular avalanche modeling pt.1 [1993, eng] **48-2501**
Siegenthaler, U.
Atmospheric carbon dioxide and the ocean [1993, eng] **48-334**
Siegert, C.
Mineral formation in permafrost sedimentary rocks [1993, eng] **48-456**
Sievers, J.
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery [1991, eng] **48-2**
Extraction of antarctic topographic glaciological features from ERS-1 SAR data [1994, eng] **48-3438**
Interferometric SAR data analysis on Ronne Ice Shelf [1992, eng] **48-249**
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica [1993, eng] **48-1325**
Sigg, A.
Atmosphere-snow transfer function for hydrogen peroxide [1993, eng] **48-2675**
Continuous analysis technique for trace species in ice cores [1994, eng] **48-3612**
Sigurdarson, S.
Stabilisation of the tidal entrance at Hornafjordur, Iceland [1993, eng] **48-157**
Sigurdsson, H.
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions [1993, fre] **48-4485**
Sigurdsson, O.
Glacier variations 1930-1960, 1960-1990 and 1989-1990 [1991, ice] **48-5293**
Glacier variations 1930-1960, 1960-1990 and 1990-1991 [1992, ice] **48-5316**
Jökulhlaup records 1984-1988 [1992, ice] **48-5315**
Sikes, E.L.
Refinement and application of a new paleotemperature estimation technique [1990, eng] **48-3709**
Silcox, R.A.
Temporal variation of cloud fraction: effects on a simulated sea-ice cover [1993, eng] **48-4655**
Silvano, S.
Example of a low-temperature-triggered landslide [1993, eng] **48-3192**
Silvola, J.
Effect of lowered water table on nitrous oxide fluxes from northern peatlands [1993, eng] **48-1121**
Simmers, J.W.
Assessment of white phosphorus storage in wetlands within artillery impact areas [1993, eng] **48-3033**
Simmonds, I.
Cyclonic atmospheric response to sea ice variations [1993, eng] **48-959**
Simmons, V.M.
Flexible snowmobile cleat [1990, eng] **48-2271**
Simms, A.E.
Regional analysis of the East Coast Iceberg Scour Database [1993, eng] **48-4130**
Simon, P.
3D transport model study of chlorine activation during EASOE [1994, eng] **48-5504**
Three-dimensional transport model study of PSC processing during EASOE [1994, eng] **48-5503**
Simon, P.C.
Stratospheric chemistry over the Swiss Alps [1994, eng] **48-5485**
Simonov, I.M.
Investigations in the Lake Untersee and Obersee regions [1985, ger] **48-5311**
Simonsen, H.
Proceedings [1993, eng] **48-1784**
Simonson, C.J.
Thermal and moisture response of fibrous insulation [1994, eng] **48-3873**
Simshauser, S.C.
Electro-repulsive separation system for deicing [1989, eng] **48-1875**
Singh, A.
Rapid pothole repairs during adverse weather conditions: field evaluation [1993, eng] **48-5092**
Singh, H.B.
Acetone in the atmosphere: distribution, sources, and sinks [1994, eng] **48-4630**
Nitrogen species distribution in Canadian subarctic atmospheres [1994, eng] **48-4631**
Singh, P.
Streamflow simulation of Satluj River in the western Himalayas [1993, eng] **48-2790**
Singh, R.P.
Passive-microwave radiometry of multilayer snow surfaces [1993, eng] **48-3416**
Singh, S.
Properties of liquid water: origin of the density anomalies [1994, eng] **48-4715**
Singh, S.K.
Compressive ice failure: critical zones of high pressure [1994, eng] **48-5589**
Pressure melting and friction in ice-structure interaction [1992, eng] **48-1537**
Singh, T.
Automobile heater using a latent heat storage device [1994, eng] **48-3094**
Singsaas, I.
Behavior of oil spills in the presence of ice [1994, eng] **48-4921**
Sinha, A.
One-dimensional study of possible cirrus cloud feedbacks [1994, eng] **48-2890**
Sinha, N.K.
Anisotropic model for gained ice ductility [1994, eng] **48-3830**
Effect of crystal orientation on behaviour of columnar grained sea ice [1994, eng] **48-3023**
Practical elastic moduli for polycrystalline ice [1994, eng] **48-3014**
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4 [1994, eng] **48-3012**
Siniurin, IU.N.
Locating edge of drift ice in the Sea of Azov [1992, eng] **48-1245**
Method for forecasting ice conditions on the Northern Route [1993, eng] **48-5298**
Siorpaes, C.
Example of a low-temperature-triggered landslide [1993, eng] **48-3192**
Sippola, M.
Rate effects in brittle ice crushing [1993, eng] **48-92**
Sirois, A.
Biogenic sulfur aerosol in the Arctic troposphere: 2. Trends and seasonal variations [1993, eng] **48-3643**
Sirois, L.
Forest-tundra transition zone in northeastern Canada [1994, eng] **48-5125**
Siron, R.
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater [1993, eng] **48-3716**
Sitnov, S.A.
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange [1992, eng] **48-3764**
Sivasundaram, V.
Concrete durability incorporating domestic fly ash [1994, eng] **48-3783**
Sivintsev, IU.
Seabed sources of radionuclides in the dumped reactor compartment of atomic icebreaker *Lenin* [1993, eng] **48-4516**
Sivtsev, M.N.
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion [1990, rus] **48-59**
SIZEX Group
SIZEX 89—a prelaunch ERS-1 experiment: experiment report [1989, eng] **48-2631**
Sjodin, P.G.
Hard insert for ice/snow clearing tool [1991, eng] **48-2233**
Sjoeblom, K.L.
IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. [1993, eng] **48-4518**

Skachkov, IU.B.
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions [1992, rus] 48-4800

Skaret, K.D.
Palsa microclimatology in Canadian mountain soils [1993, eng] 48-412

Skelton, L.
Aerodynamic torque in snow accretion on transmission lines [1993, eng] 48-819
Effect of density variations in models of rime ice accretion on overhead line conductors [1993, eng] 48-820
Ice load measurements on overhead line conductors [1993, eng] 48-827

Skelton, P.L.I.
Effect of density variations during rime growth on overhead transmission line conductors [1994, eng] 48-5109
Ice load measurements for accreted ice on power lines [1993, eng] 48-2022
Snow accretion on horizontal rotating conductor rods [1994, eng] 48-5060

Skidmore, E.L.
Winter-associated changes in dry-soil aggregation as influenced by management [1993, eng] 48-3240

Skinner, C.J.
Methanol ice in the protostar GL 2136 [1992, eng] 48-3617

Skinner, W.R.
Lake ice conditions as climatic change indicator [1993, eng] 48-1807

Skogland, T.
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident [1993, eng] 48-4553

Skorodumov, I.N.
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport [1992, rus] 48-4798

Skriabin, P.N.
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions [1992, rus] 48-4800

Skriabin, R.M.
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks [1994, eng] 48-3991

Skvarca, P.
Fast recession of the northern Larsen Ice Shelf monitored by space images [1993, eng] 48-1342

Slade, A.H.
Wastewater sludge analysis with freeze concentration method [1993, eng] 48-973

Slade, M.A.
Radar photography of ice at the north pole of Mercury [1993, eng] 48-752

Slagstad, D.
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea [1993, eng] 48-595

Slaughter, C.W.
Global warming considerations in northern boreal forest ecosystems [1992, eng] 48-2036
Hydrologic and water quality characteristics of a degrading open-system pingo [1993, eng] 48-457
Science research needs on federally protected Alaskan lands [1990, eng] 48-1274

Slavin-Borovskii, V.B.
N-factor maps of Russian permafrost region [1993, eng] 48-455

Slaymaker, O.
Sediment yields in small drainage basins in British Columbia [1992, eng] 48-4407

Sleigh, G.
Behaviour of steel at low temperatures [1982, eng] 48-5392

Sleptsov, O.I.
Characteristics of the structural formation of weld seams, applied by an irregular fusion method [1990, rus] 48-54
Problems in welding of structures used in polar regions of Russia [1994, eng] 48-3978

Sleptsov, V.I.
Questions on the preservation of frozen straw-colored soils [1988, rus] 48-911

Slesarev, I.V.
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems) [1993, eng] 48-2297

Sletten, R.S.
Determination of chlorinated organic compounds in soils [1993, eng] 48-798
Laboratory simulation of limestone dissolution [1993, eng] 48-458

Sloan, M.D.
System for use in providing compressed air for snow making equipment [1989, eng] 48-4079

Slobodchikova, S.V.
Laboratory investigations of the dielectric permittivity of frozen sandy soils [1993, eng] 48-4285
Microwave apparatus for monitoring soil temperatures [1994, eng] 48-2215

Sloss, D.A.
Army MANPRINT program and its relationship to industry [1993, eng] 48-1168

Slupetzky, H.
Radiocarbon dating from an Alpine glacier forefield [1991, ger] 48-3658

Slyn'ko, A.G.
Container design for frost sensitive arctic freight [1993, eng] 48-5017

Smager, I.V.
Rock and frozen ground breaking device using heating elements [1992, eng] 48-5533

Small, D.
Correction of radiometric distortions in snow cover imagery [1993, eng] 48-1685

Smargiassi, E.
2D and 3D modelling of ice accretion on wires [1993, eng] 48-818

Smedley, D.J.
Snowdrifting simulation around a Davis Station workshop [1993, eng] 48-2911

Smethie, W.M., Jr.
Ice Station Weddell (ISW) tracer-oceanography program [1992, eng] 48-3781

Smiraglia, C.
Century of glacier fluctuations in the Lombardy Alps (Italy) [1993, ita] 48-4107
Evaluation of the dynamic parameters of Strandline Glacier [1992, ita] 48-3287
Permafrost distribution in the Italian mountains [1993, eng] 48-356
Recent research on the Calderone glacier, Abruzzo, Italy [1993, ita] 48-4102
Recent trends and prospect of Italian glaciological research [1993, ita] 48-4112
Reports on the Glaciological Survey of 1991 [1993, ita] 48-4117

Smirnov, V.N.
Experimental studies of thermal stresses in the ice [1993, eng] 48-2692
In situ investigations of the shore-ice-grounded hummock interaction [1994, eng] 48-5582
Mechanics of natural deforming sea ice floes [1993, eng] 48-96
Physico-mechanical model of self-excited processes by sea ice compacting [1993, eng] 48-4328
Quasi-static thermal stresses in the sea ice [1994, eng] 48-5578

Smith, B.
Laboratory study of flow in ice-covered, dune-bed channels [199?, eng] 48-1543

Smith, B.T.
Flow over dunes in ice-covered channels [1994, eng] 48-5545

Smith, B.W.
Investigation of the feasibility of operating large tethered aerostats in the Arctic [1984, eng] 48-4400

Smith, C.
International Northern Sea Route Program [1994, eng] 48-5593

Smith, C.A.S.
Development of granular structure in surface horizons of strongly cryoturbated soils [1993, eng] 48-2294
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada [1993, eng] 48-2498
Redoximorphic features in permafrost soils [1993, eng] 48-2296

Smith, C.C.
Heave and settlement of soils in one freeze-thaw cycle [1993, eng] 48-5197

Smith, C.D.
Physical model study of ice jamming at a low level crossing [1992, eng] 48-1544

Smith, C.E.
Offshore structures for arctic oil and gas operations [1990, eng] 48-4685
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images [1994, eng] 48-3439

Smith, C.E., Jr.
Low-temperature admixtures for concrete [1994, eng] 48-3354

Smith, C.H.
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska [1994, eng] 48-3844

Smith, D.
Recycling of aircraft deicing fluids [1994, eng] 48-5142

Smith, D.E.
Comparison of the predictive ability of ice cream freezing point depression equations [1993, eng] 48-3839

Smith, D.J.
Snow-avalanche impact pools in the Canadian Rocky Mountains [1994, eng] 48-4370
Solifluction dynamics of certain Rocky Mountain slopes [1988, eng] 48-2560

Smith, D.W.
Cold regions engineering: "A global perspective" [1994, eng] 48-3347
Comprehensive domestic water quality study in the Northwest Territories [1994, eng] 48-3377
Performance and factors affecting performance of lagoons in cold regions [1994, eng] 48-3382

Smith, G.
Alaska Energy Authority PV-diesel hybrid assessment and design program [1991, eng] 48-4757

Smith, J.L.
Watershed modeling—spatial partitioning using GIS [1993, eng] 48-687

Smith, K.H.
Highway operations: progress and products update [1991, eng] 48-3705

Smith, M.L.
Snowmobile [1990, eng] 48-2179

Smith, M.W.
Issues in Canadian permafrost research [1993, eng] 48-692
Modelling permafrost response to climate change and climate variability [1993, eng] 48-877

Smith, N.R.
Ocean modeling in a global ocean observing system [1993, eng] 48-340

Smith, O.P.
Delay of arctic shoreline erosion by artificial spray ice [1994, eng] 48-3974

Smith, R.C.
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90 [1994, eng] 48-4387

Smith, R.E.H.
Ice algae primary productivity in the high arctic [1993, eng] 48-85
Nutrient enrichment of high arctic ice algae from Resolute [1993, eng] 48-1083
Physiology of High Arctic sea ice algae [1990, eng] 48-3242
Responses to temperature of an Arctic psychrophylic ice diatom [1994, eng] 48-3791

Smith, R.L.
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake [1993, eng] 48-1664
Phytoplankton population dynamics in Lake Fryxell [1994, eng] 48-4813

Smith, S.D.
Hindcasting iceberg drift using current profiles and winds [1993, eng] 48-2732

Smith, S.L.
Ice lens formation and frost heave from a thermodynamic rheologic perspective [1992, eng] 48-2655

Smith, S.O.
Ice thickness and particle size from an eddy current deicer [1994, eng] 48-3110

Smith, T.R.
Brittle compressive failure of salt-water columnar ice under biaxial loading [1994, eng] 48-5163

Smith, V.R.
Soil decomposition in Marion I. tundra [1993, eng] 48-1892

Smith, W.H.F.
Gravity field of the Ross Sea region from satellite altimetry [1994, eng] 48-3487

Smith, W.K.
Effects of wind on needle desiccation of timberline conifers [1983, eng] 48-3346
Subnivean development of a snowbank geophyte [1994, eng] 48-3503

Smith, W.O., Jr.
Physical/biological interactions in arctic seas [1993, eng] 48-1510

Smol, J.P.
Freshwater diatoms from high arctic ponds [1993, eng] 48-2697
Microfossils in a High Arctic peat deposit [1994, eng] 48-5126

Smorodin, V.E.
Endothermal wetting effect and ice nucleation mechanisms of silver iodide [1994, eng] 48-4717

Smorygin, G.
Geocryological implications of colloid solution freezing [1993, eng] 48-435

Snegirev, A.M.
Borehole electrometry of permafrost zone [1993, eng] 48-532

Sneyers, R.
Climatic changes in the Austrian Alps during the period 1775-1989 [1993, eng] 48-4113

Snider, J.B.
Cloud ice effects on downward atmospheric longwave radiation [1994, eng] 48-4474
Doppler radar retrieval of vertical profiles of cirrus parameters [1994, eng] 48-4088
Remote sensing of supercooled liquid water in a winter storm [1986, eng] 48-3260

Snorrason, A.
Jökulhlaup records 1984-1988 [1992, ice] 48-5315

Snow and avalanches in the Swiss Alps, Winter 1991-92
Snow and avalanches in the Swiss Alps, Winter 1991-92 [1993, ger] 48-1378

Snow engineering for roads: about snow avalanches and drifting snow
Snow engineering for roads: about snow avalanches and drifting snow [1994, eng] 48-5433

Snow scoop helps clear rear of plow
Snow scoop helps clear rear of plow [1994, eng] **48-5301**
Snowball, I.F.
Geochemical control on subarctic lake sediment composition [1993, eng] **48-5013**
Snowdon, L.R.
Hydrocarbon maturity indicators and Melville I. lithology [1993, eng] **48-3231**
Sobakin, A.A.
Impact of nonstationary temperature effects on the stress state of integrated structures [1990, rus] **48-60**
Sobol', S.V.
Software for permafrost seepage calculations beneath earth dams [1994, eng] **48-4806**
Sobolev, G.P.
Rock and frozen ground breaking device using heating elements [1992, eng] **48-5533**
Sobolev, V.D.
Estimates of the viscosity of nonfreezing layers of water [1994, eng] **48-3834**
Nonfreezing water layer thickness relation to ice pressure [1994, eng] **48-3833**
On the non-freezing water interlayers between ice and a silica surface [1993, eng] **48-2429**
Sobolev, V.M.
Pleistocene deposits of the White Sea and its coast [1993, rus] **48-3744**
Sobue, S.
Near real time satellite SAR image data transmission system [1993, eng] **48-1055**
Socal, G.
Biology of the Weddell/Scotia Confluence and of the ice edge [1992, ita] **48-4212**
Söchting, U.
Two new lichen species found in Taymyr Peninsula [1993, eng] **48-1634**
Soden, B.J.
Evaluation of a GCM cirrus parameterization using satellite observations [1994, eng] **48-5028**
Sodhi, D.S.
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4 [1994, eng] **48-3012**
Stress analysis of a proposed tunnel under the South Pole skiway [1993, eng] **48-2963**
Theoretical model for ice-structure interaction [1994, eng] **48-3017**
Theoretical model for ice-structure interaction [1994, eng] **48-5619**
Soh, L.K.
Dynamic local thresholding technique for sea ice classification [1993, eng] **48-1694**
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery [1993, eng] **48-1692**
Sohio-BP (Standard Oil Company of Ohio-British Petroleum Company)
Producing Prudhoe Bay [1978, eng] **48-3328**
Soininen, H.
Ice capability of the multipurpose icebreaker *Fennica*—full-scale results [1993, eng] **48-111**
Interaction between ice and propeller [1991, eng] **48-4892**
MSV Fennica, a novel icebreaker concept [1994, eng] **48-4301**
Soininen, L.
Snowmobile accidents in Lapland [1992, eng] **48-4965**
Sokolic, F.
Trends in total ozone over southern African stations between 1979 and 1991 [1993, eng] **48-4390**
Sokolik, I.N.
Microphysical, optical, and radiation characteristics of arctic aerosol [1993, eng] **48-1754**
Sokolov, B.L.
Modern methods for determination of the base flow in the cryolithic zone [1993, eng] **48-5297**
Sokolov, V.A.
Forest resources of Siberia [1994, eng] **48-2481**
Sokolova, L.S.
Geothermal regime of cryolithozone of West Siberia [1993, eng] **48-374**
Solario, J.N.
Airborne spectroscopy of arctic winter stratosphere [1992, eng] **48-2637**
Solberg, R.
Mapping of snow cover by ERS-1 SAR [1993, eng] **48-1717**
Solheim, A.
Glacigenic sediments related to the glacial history of Prydz Bay [1991, eng] **48-3631**
Solie, D.J.
Gas gun experiments to determine shock wave behavior in snow: methods and data [1993, eng] **48-1005**
Solis, C.
Application of oxygen-18 tracer techniques to arctic hydrological processes [1993, eng] **48-944**
Sollid, J.L.
Cryogenic weathering of a Svalbard coastal cliff [1993, eng] **48-634**
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway [1993, eng] **48-2883**
Mass balance and changes of surface slope of a Spitsbergen glacier [1993, eng] **48-3415**
Norwegian glacial landforms in relation to ice sheet thermal regime [1994, eng] **48-4825**
Solomatin, V.I.
Analysis of Siberian fossil glacier ice [1993, eng] **48-1009**
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia [1993, eng] **48-533**
Solomina, O.N.
Holocene glacier variations in the Tian Shan [1994, eng] **48-4943**
Solomon, S.
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations [1994, eng] **48-3151**
Spectroscopy at McMurdo Station, pt.10 [1994, eng] **48-3148**
Temperature dependence of the HNO_3 UV absorption cross sections [1993, eng] **48-2472**
Sommerfeld, R.A.
Biogeochemical fluxes in the Glacier Lakes catchments [1993, eng] **48-4120**
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks [1993, eng] **48-2957**
Methane and nitrous oxide flux in a Wyoming subalpine meadow [1993, eng] **48-2548**
Permeability measurements on new and equitemperature snow [1993, eng] **48-2053**
Quasi-steady temperature gradient metamorphism in idealized dry snow [1994, eng] **48-4166**
Sulfur dioxide reactions on ice surfaces [1993, eng] **48-132**
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow [1993, eng] **48-3906**
Sone, T.
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989 [1992, jpn] **48-3155**
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains [1992, jpn] **48-3216**
Effects of climatic warming on the active layer [1993, eng] **48-441**
Palsa formation in the Daisetsu Mountains, Japan [1993, eng] **48-5238**
Report on permafrost study at Isla Marambio (Seymour Island) [1993, jpn] **48-2433**
Sonesson, M.
Epiphytic lichens as indicators of snow depth [1994, eng] **48-4375**
Song, C.Q.
Fossil ice and periglacial structure in Chinese mountain soils [1993, eng] **48-508**
Holocene periglacial processes in Inner Mongolia [1992, chi] **48-2012**
Mongolian periglacial phenomena [1993, eng] **48-369**
Song, M.
Upward solidification of a binary solution saturated porous medium [1993, eng] **48-697**
Song, N.H.
Investigation of ice in supercooled clouds, Pt.1 [1994, eng] **48-2512**
Investigation of ice in supercooled clouds, pt.2 [1994, eng] **48-2556**
Sonoi, Y.
Radar detection of thundercloud ice particle distribution [1993, eng] **48-951**
Sonwalkar, N.
Ice/solid adhesion analyzed with Raman microprobe [1993, eng] **48-2048**
Soo, K.S.
Frost susceptibility of concrete in near-saturated states [1994, eng] **48-5289**
Soo, S.
Analysis of temperature effects on the flexural behavior of frozen soil [1993, eng] **48-459**
Sørbel, L.
Norwegian glacial landforms in relation to ice sheet thermal regime [1994, eng] **48-4825**
Sörensen, C.
Super elliptic bridge piers for ice forces [1993, eng] **48-149**
Sorokin, M.G.
Results of measurements of negative ion concentration in the Arctic stratosphere [1993, rus] **48-2494**
Sorokina, Z.G.
Forecasting thermokarst with a computer [1992, rus] **48-4796**
Sosedko, M.N.
Snowmelt flood modelling of a Bulgarian river basin [1992, bul] **48-2153**
Sosin, T.S.
Approximate evaluation of the stress state of unrated sections of a main gas pipeline [1990, rus] **48-52**
Method for low temperature field tests of pipes and pressure vessels [1990, rus] **48-51**
Sotoi, T.
Study on traffic volume at signal controlled intersections in winter [1986, jpn] **48-21**
Souchez, R.
Basal boundary conditions at the Greenland Ice Sheet margin [1993, eng] **48-41**
Chemical and isotopic distribution in ice due to water freezing in Antarctica [1993, eng] **48-2137**
Soulis, E.D.
Modeling of snowmelt runoff in Ontario from SAR data [1993, eng] **48-2969**
Soumpasis, D.M.
Computation of ice-water interface density [1994, eng] **48-3011**
Sowers, G.F.
Effects of freezing on hydraulic conductivity of compacted clay—discussion [1993, eng] **48-1785**
Sowers, T.
Firn chemistry at Vostok Station [1994, eng] **48-4218**
Sparrow, S.D.
Frost-seeding of summer turnip rape in the subarctic [1992, eng] **48-2156**
Urea nitrogen budget for a subarctic agricultural soil [1993, eng] **48-696**
Spaulding, S.A.
Phytoplankton population dynamics in Lake Fryxell [1994, eng] **48-4813**
Speakman, D.
Snowstorm effects on Birmingham ambulances services, UK [1994, eng] **48-3498**
Speck, R.
Roof-snow load for seismic-design calculations—discussion [1994, eng] **48-2356**
Spector, G.
Wind deflector plate for snow plow [1990, eng] **48-2192**
Spencer, D.
Hi-E model ice—improving the elastic modulus of columnar model ice [1994, eng] **48-5580**
Ice rubble buildup on conical structures [1994, eng] **48-5555**
Icebreaking performance from model scale tests [1994, eng] **48-4297**
Parameters influencing ice arch formation [1994, eng] **48-5623**
Spencer, D.S.
Effect of lateral ice pressure on ship resistance [1993, eng] **48-112**
Full scale deflection of ice by an icebreaker [1993, eng] **48-103**
Ice wedge dynamics and local crushing [1993, eng] **48-94**
Model ice resistance database: a tool for designers [1993, eng] **48-3116**
Scaling relationships for icebreaking based on analysis of a simple wedge [1993, eng] **48-175**
Spencer, J.R.
Influence of thermal inertia on temperatures and frost stability on Triton [1992, eng] **48-1606**
Speshilov, I.V.
Mixture for construction of car-road base [1992, eng] **48-4428**
Spielhagen, R.F.
Isotope analysis of Arctic Ocean surface water plankton [1994, eng] **48-5635**
Spies, K.
Belt-type caterpillar for track-laying vehicles and snowmobiles [1991, eng] **48-2226**
Spindler, M.
Notes on the biology of sea ice in the Arctic and Antarctic [1994, eng] **48-5152**
Spiridonov, V.V.
Method of forming soil base on frozen ground [1992, eng] **48-5512**
Spiro, B.
Reactive carbonate in glacial systems [1994, eng] **48-5039**
Spreafico, M.
Determination of discharge with fluorescence tracers in the Nepal Himalayas [1993, eng] **48-2768**
Spreng, S.
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere [1994, eng] **48-5454**
Spectrometry of nitric acid in the winter arctic stratosphere [1994, eng] **48-5453**
Spring, W.
Iceberg data from annual expeditions in the Barents Sea [1993, eng] **48-130**
Photogrammetric analysis of icebergs in the Barents Sea [1993, eng] **48-128**
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992 [1993, eng] **48-129**
Satellite mapping of icebergs in the Barents Sea [1993, eng] **48-126**
Spyridakis, D.E.
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington [1993, eng] **48-3556**
Squire, V.A.
Collision events between adjacent ice floes driven by an ocean wave field [1993, eng] **48-4355**
Constitutive relation for sea ice based on thermodynamics and damage mechanics [1993, eng] **48-4322**
Flexural waves on Erebus Glacier Tongue [1994, eng] **48-5174**

Marginal ice zone rigidity parameterization from ocean wave refraction [1994, eng] **48-3827**
Model for the motion and bending of an ice floe in ocean waves [1993, eng] **48-2691**
Model for the motion and bending of an ice floe in ocean waves [1993, eng] **48-4350**
Ocean wave propagation in an ice field with varying concentration [1993, eng] **48-4351**
Response of ice floes to ocean waves [1994, eng] **48-2809**

Squyres, S.W.
Ice in the Martian regolith [1992, eng] **48-5041**
Martian regolith ground ice inferred from impact craters [1993, eng] **48-2996**

Srivastav, S.K.
Passive-microwave radiometry of multilayer snow surfaces [1993, eng] **48-3416**

Šrůtek, M.
Larch variation along the treeline in North Korean forests [1994, eng] **48-4376**

St-Hilaire, A.
Temperature differences in the Restigouche estuary during the ice-covered season [1994, eng] **48-3360**

St. Germain, K.M.
Comment on paper by St. Germain et al [1993, eng] **48-3006**

St. John, J.
Ice impact load measurement aboard the icebreaker *Oden* [1994, eng] **48-4291**

Staäblein, G.
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen [1978, eng] **48-3315**

Stäblen, G.
Geomorphology and thawing dynamics at Potter Peninsula [1994, eng] **48-3486**

Staehelin, J.
Goals of Mount Rigi winter precipitation project [1993, eng] **48-216**

Staelin, D.H.
Third Stokes parameter emission from a periodic water surface [1993, eng] **48-2109**

Staker, B.G.
Dynamics of marginal ice formation—analysis of an ice-slip- and-fall case [1990, eng] **48-2630**

Staley, J.T.
Vertical distribution of bacteria in Arctic sea ice [1993, eng] **48-2314**

Stamnes, K.
Arctic cloud optical thickness from ground measurements [1994, eng] **48-4015**
Modeling of UV penetration through the atmosphere and ocean [1993, eng] **48-3733**

Stanev, K.
Snowmelt flood modelling of a Bulgarian river basin [1992, bul] **48-2153**

Stanford, K.L.
Future technical developments for the Polar Ice Coring Office 13.2 cm ice coring drill [1994, eng] **48-5331**

Stanford, M.
Microwave locator of objects buried in snow [1994, eng] **48-3275**

Stanga, D.
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system [1993, eng] **48-1837**

Stankevicius, V.
New requirements for buildings in Lithuania directed to energy savings [1994, eng] **48-3857**

Stankov, B.B.
Aircraft icing conditions detected by remote sensors [1993, eng] **48-2504**
Remote sensing of aircraft icing conditions [1994, eng] **48-3010**

Stankowiak, A.
Acetate de-icing agent for road surfaces [1993, eng] **48-1939**

Stanley, A.
Glacier mass balance measurements—a manual for field and office work [1969, eng] **48-2917**

Stanley, D.
All about ice [1993, eng] **48-2759**

Stanley, H.E.
Phase diagram for amorphous solid water [1993, eng] **48-2523**

Stanley, M.J.
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska [1994, eng] **48-3390**

Stanley, S.J.
Performance and factors affecting performance of lagoons in cold regions [1994, eng] **48-3382**

Stansberry, J.A.
Triton's surface-atmosphere energy balance [1992, eng] **48-1605**

Stanton, M.L.
Alpine plant growth manipulation through snowmelt variation [1993, eng] **48-961**

Stapleford, L.C.
Responses to temperature of an Arctic psychrophylic ice diatom [1994, eng] **48-3791**

Stark, D.C.
Significance of pavement design and materials in D-cracking. Final report [1991, eng] **48-4899**

Stark, J.
Experiences with the CDF method for testing the frost deicing salt resistance of concrete [1993, eng] **48-3559**

Starodubtseva, O.A.
Effect of aqueous solutions of anti-icing additive on Thiokol sealants [1993, eng] **48-982**

State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi)
Laboratory construction and administration [1993, chi] **48-1426**

Station climatic summaries: China, the former USSR, and Mongolia
Station climatic summaries: China, the former USSR, and Mongolia [1994, eng] **48-4754**

Stauffer, B.
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene [1994, eng] **48-2710**

Stearns, C.R.
Antarctic automatic weather station data for the calendar year 1991 [1993, eng] **48-1662**
Antarctic automatic weather station data for the calendar year 1992 [1994, eng] **48-4131**

Stebbings, K.
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis [1994, eng] **48-3369**

Stedinger, J.R.
Disaggregation models of seasonal streamflow forecasts [1993, eng] **48-2955**

Steel, A.
Comparison of pressuremeter test results in sea ice [1994, eng] **48-4481**

Steele, B.
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] **48-3792**

Steele, L.P.
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989 [1993, eng] **48-3900**

Steele, M.
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction [1993, eng] **48-3335**

Steenkamp, M.
Soil decomposition in Marion I. tundra [1993, eng] **48-1892**

Steensboe, J.S.
Oil spill simulations as a contingency planning tool offshore West Greenland [1993, eng] **48-158**

Stefan, H.G.
Validation of cold climate lake temperature simulation [1993, eng] **48-2736**

Stefanutti, L.
Lidar measurements of simulated polar stratospheric clouds [1993, eng] **48-2987**

Steffen, K.
Algorithm to improve satellite imagery of sea ice distribution [1989, eng] **48-2670**
Proceedings [1993, eng] **48-1292**
Report on polar regions AVHRR workshop [1993, eng] **48-1293**
Sea ice-atmosphere interaction and surface energy flux [1991, eng] **48-320**
Sea ice-atmosphere interaction and surface energy flux [1993, eng] **48-2641**
Sea ice-atmosphere interaction and surface energy flux [1992, eng] **48-4863**
Spaceborne/ground truth radiometric ice sheet correlations [1993, eng] **48-1299**

Steffensen, J.P.
GRIP deep drilling camp [1994, eng] **48-5362**

Stehn, L.
Fracture toughness and crack growth of brackish ice using chevron-notched specimens [1994, eng] **48-5178**

Stehn, L.M.
Influence of specimen geometry on the fracture toughness of freshwater ice [1994, eng] **48-3969**
Method for determining the anisotropic fracture toughness of ice [1993, eng] **48-97**
Porosity effects on measured strength of warm ice [1993, eng] **48-89**

Steiert, J.G.
Membrane fatty acid analysis of antarctic bacteria [1993, eng] **48-3823**

Steig, E.J.
Paleoclimate/ice sheet dynamics from antarctic ice cores [1993, eng] **48-4201**
Taylor Dome ice-core study [1992, eng] **48-2626**

Steiger, W.
Investigation of forces incurred during snow plowing [1993, eng] **48-1170**

Stein, B.
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina [1993, eng] **48-5240**
Stratospheric aerosol lidar measurements over Finland [1994, eng] **48-5468**

Stein, J.
Forest floor frost dynamics during spring snowmelt in a boreal forested basin [1994, eng] **48-4449**

Stein, P.
Rosemount freezing rain sensor [1993, eng] **48-828**

Stein, R.
Arctic Ocean Pleistocene-Holocene sedimentation rates [1994, eng] **48-5641**
Last deglaciation event in the eastern central Arctic Ocean [1994, eng] **48-3737**
Mineralogy of Arctic Ocean surface sediments [1994, eng] **48-5637**

Stein, R.P.
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988 [1991, eng] **48-4733**

Steinegger, U.
Annual snow accumulation in the Langtang region [1993, eng] **48-2782**
Recent changes in glacier tongues in the Langtang Khola basin [1993, eng] **48-2776**

Steiner, D.R.
Establishment of a digital database for the study of glacial velocity in Antarctica [1990, eng] **48-2428**

Steiner, G.
Thermal behavior of rocky material in contact with ice [1994, eng] **48-4154**

Steinke, D.
Caterpillar Mobil-Trac system's application to cold regions mobility problems [1993, eng] **48-1178**

Steinnes, E.
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident [1993, eng] **48-4553**

Steinsund, P.I.
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications [1994, eng] **48-3806**

Stepanov, A.V.
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete [1994, eng] **48-3956**

Stepanov, I.R.
Use of steam-gas plants in Northern regions [1992, rus] **48-4150**

Stepanov, I.V.
Physico-mechanical model of self-excited processes by sea ice compacting [1993, eng] **48-4328**

Stepanov, S.
Northernmost project [1993, rus] **48-1907**

Stern, H.L.
Geophysical Processor System: automated analysis of ERS-1 SAR imagery [1994, eng] **48-3451**
Sea ice lead dynamics from ERS-1 SAR [1994, eng] **48-3448**

Stern, L.A.
Flow of ices in the ammonia-water system [1993, eng] **48-923**

Stern, S.A.
UV absorption by surface constituents of Triton [1993, eng] **48-1214**

Sterzenbach, M.
Seismic survey in arctic regions [1993, eng] **48-155**

Steurer, P.M.
Freeze/frost data [1988, eng] **48-4399**
Frost protected shallow foundations and freezing index climatography for residential construction [1994, eng] **48-3398**

Stewart, K.
Planktonic primary productivity in an Icelandic lake [1993, eng] **48-942**

Stewart, K.M.
Influence of lake morphometry on ice dates [1990, eng] **48-4401**

Stewart, R.E.
Diabatically forced mesoscale circulations in the atmosphere [1991, eng] **48-1672**
Trajectory influence on winter storm precipitation type [1993, eng] **48-1744**

Stewart, T.G.
Holocene sea ice variations on Ellesmere I., arctic Canada [1983, eng] **48-3339**

Stirling, J.
New way to remove ice from streets and highways [1990, eng] **48-1667**

Stochmal, W.
Transparency changes in waters of Admiralty Bay [1992, eng] **48-539**

Stocker, T.F.
Transport of freshwater into the deep ocean by the conveyor [1993, eng] **48-4189**
Younger Dryas experiments [1993, eng] **48-4198**

Stocks, D.T.
Reconstruction of the CCGS *Louis S. St. Laurent* [1994, eng] **48-4300**

Stoffyn-Egli, P.
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean [1994, eng] **48-4019**

Stoica, M.
Thermal comfort analysis in apartment buildings using the CAMERA program [1994, eng] **48-3846**

Stone, C.S.
Vegetation of coastal marshes near Juneau, Alaska [1993, eng] **48-2464**

Stone, D.B.
Subglacial hydraulic properties estimated from basal water pressure [1993, eng] **48-2396**
Subglacial measurement of turbidity and electrical conductivity [1993, eng] **48-2404**

Stone, R.S.
Arctic stratospheric aerosols following Mt. Pinatubo eruptions [1993, eng] **48-2327**
Radiometric profiles of antarctic winter clouds [1993, eng] **48-196**
Satellite detection of sea ice leads—atmospheric factors [1993, eng] **48-1327**
Solar radiation attenuation by ice content of stratus clouds [1989, eng] **48-1472**

Storey, J.B.
Cold regions test phase for M1A2 tank [1993, eng] **48-1278**

Stössel, A.
On the momentum forcing of a large-scale sea-ice model [1993, eng] **48-2807**

Stöttrup-Andersen, U.
Protection of antennas on telecommunication masts and towers for atmospheric icing [1993, eng] **48-852**

Stotts, S.A.
Development of an arctic ray model [1994, eng] **48-4064**

Stovall, T.K.
Calmac ice storage test report [1991, eng] **48-3676**

Stow, D.A.
Spectral, spatial and temporal characteristics of arctic tundra reflectance [1993, eng] **48-934**

Strabala, K.I.
Cloud properties inferred from 8-12 micron data [1994, eng] **48-2886**

Strahan, S.E.
Evaluation of SKYHI general circulation model, pt.1 [1994, eng] **48-4844**
Evaluation of SKYHI general circulation model, pt.2 [1994, eng] **48-4845**

Strain, P.M.
Sea water isotopic variations during ice formation [1993, eng] **48-227**

Strait, M.M.
Movement of trace elements during residence in the antarctic ice: a laboratory simulation [1991, eng] **48-4866**

Strand, M.
Pine winter photosynthesis affected by summer SO_2 exposure [1993, eng] **48-4286**

Strand, P.
Environmental radioactivity in the Arctic and Antarctic; proceedings [1993, eng] **48-4510**
Survey of artificial radionuclides in the Kara Sea [1993, eng] **48-4514**

Strasel, E.S.
Feasibility study for an ice-capable oceanographic ship [1993, eng] **48-4253**

Strass, P.
Technological challenges for hydrocarbon production in the Barents Sea [1993, eng] **48-125**

Straume, T.
Model simulations of the tides in the Barents Sea [1994, eng] **48-3196**

Stravers, J.A.
Holocene ice stream advance, Hudson Strait [1993, eng] **48-2340**

Street, R.B.
Terrestrial component of the cryosphere [1993, eng] **48-2705**

Street, W.L.
Adjustable wheel for snow plow [1990, eng] **48-2174**

Strekalov, P.V.
Metal corrosion in various USSR climatic regions [1993, eng] **48-2379**

Streletskaya, I.D.
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula [1993, eng] **48-2299**
Formation, distribution and dynamics of cryopegs, and associated problems of construction [1994, eng] **48-3402**

Strel'tsova, O.A.
Temperature effect on the redistribution of microelements in the soil massif [1993, eng] **48-517**

Stretch, C.E.
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front [1992, eng] **48-5322**

Streveler, G.P.
Bibliography of Glacier Bay, AK, 1798-1992 [1992, eng] **48-2694**

Stringer, W.J.
Influence of the hydrologic cycle on the extent of sea ice with climatic implications [1993, eng] **48-319**

Strobl, D.
Study on SAR land applications for snow and glacier monitoring. Final report [1988, eng] **48-3332**

Stroeven, A.P.
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica [1992, eng] **48-2624**

Strömberg, B.
Dating of Swedish deglaciation from glacial deposits [1994, eng] **48-4990**

Strong, A.B.
Comparison of explosive extraction methods for ground water testing [1994, eng] **48-3825**

Strong, J.E.
Deicing salt effects on roadside soil chemical mobility [1993, eng] **48-1759**
Trace metal solubility in soils and waters receiving deicing salts [1994, eng] **48-4159**

Strongin, A.S.
Aerodynamic protection of premises against cold through apertures [1994, eng] **48-3865**
Reduction of the energy consumption in air curtains [1994, eng] **48-3864**

Strunk, N.
Snowmelt and water quality changes in small rivers [1993, eng] **48-1776**

Stukenrath, R., Jr.
Sea level change and Quaternary sediments off Maine [1992, eng] **48-1925**

Sturges, W.T.
Halocarbons in the arctic and antarctic atmosphere [1993, eng] **48-3053**
Halogens in aerosols in central Alaska [1993, eng] **48-3910**
Meteorological influences on Alaskan ozone destruction [1993, eng] **48-3897**
Stable lead isotope ratios in Alaskan arctic aerosols [1993, eng] **48-3898**

Sturm, H.J.
Evaluation of a major concrete pavement rehabilitation and overlay project in Ontario [1993, eng] **48-5081**

Sturm, K.
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet [1994, eng] **48-3437**
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992 [1992, eng] **48-246**
Remotely sensed microwave signatures of antarctic firn [1993, eng] **48-1346**

Sturm, M.A.
Gas gun experiments to determine shock wave behavior in snow: methods and data [1993, eng] **48-1005**
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. [1993, eng] **48-1310**
Rain-induced water percolation in snow as detected using heat flux transducers [1993, eng] **48-284**
Structure and wind transport of seasonal snow on the arctic slope of Alaska [1993, eng] **48-2864**

Stutz, M.H.
Materials for the analysis of volatile organic compounds in soil [1994, eng] **48-5414**

Stutzman, W.L.
Antenna for microwave remote sensing from geostationary orbit [1991, eng] **48-3697**

Su, F.H.
Icing on insulator string of HV transmission lines and its harmfulness [1993, eng] **48-4339**

Su, J.S.
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River [1994, eng] **48-5611**

Su, S.K.
Prevention of ice damage to hydraulic structures [1993, eng] **48-5239**

Su, W.H.
Selection of an air pollution monitoring site [1992, chi] **48-1483**

Su, Z.
Developing conditions, amounts and distributions of glaciers in Gongga Mountains [1993, chi] **48-4587**

Subzero Engineering Conditions Conference, Brainerd, MN, Feb. 21-24, 1994
Proceedings [1994, eng] **48-3083**

Sudakov, P.A.
Multiyear variation of annual and seasonal totals of precipitation and their relation to air temperature [1992, rus] **48-4460**

Sudakova, N.G.
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure [1992, rus] **48-1396**

Sudul, M.
Experimental investigation of optical snow properties [1993, eng] **48-1336**

Sugai, K.
Offshore structures in the presence of ice floes [1993, jpn] **48-1034**

Sugasawa, T.
Durable surface coatings for rubber articles e.g. wiper blades and seal packings [1993, eng] **48-5523**

Sugawara, M.
Freezing of water in a closed circular tube [1993, eng] **48-868**
Melting of snow with double effect of temperature and concentration [1993, eng] **48-2342**

Sugawara, N.
Insulation properties of atmospheric iced insulators installed in high mountains [1993, eng] **48-848**
Withstand voltage and flashover performance of iced insulators [1993, eng] **48-847**

Sugden, D.E.
Ice sheet basal flow around large obstacles [1994, eng] **48-5172**
Patagonian icefields: a glaciological review [1993, eng] **48-2417**

Sugimori, M.
Calculation of flow in the network of snow removing channel [1992, jpn] **48-3158**

Sugino, H.
Buckling of geodesic domes under snow loads. Part 8 [1993, jpn] **48-1999**

Sugita, M.
Engine mounting arrangement and drive mechanism for small snowmobiles [1991, eng] **48-2223**
Frame and body construction for small snowmobile [1990, eng] **48-2189**
Frame construction for small snowmobile [1990, eng] **48-2188**

Sugiyama, A.
Countermeasures for studded tires in Miyagi Prefecture [1986, jpn] **48-261**

Sugiyama, T.
Ice particles in noctilucent clouds [1994, eng] **48-3634**

Suhama, T.
Passive-microwave remote sensing of snow [1993, eng] **48-2871**

Sui, J.X.
Effect of Bohai ice crushing strength on vertical structures [1993, chi] **48-2096**

Sui, T.L.
Frost heave in retaining walls in seasonally frozen ground [1993, eng] **48-460**

Suito, K.
New phase of ice above 70 GPa [1994, eng] **48-4718**

Suitz, T.
Development of high resolution ice echo sounder [1993, eng] **48-1065**

Sukhorukov, K.K.
Experimental studies of thermal stresses in the ice [1993, eng] **48-2692**
In situ investigations of the shore-ice-grounded hummock interaction [1994, eng] **48-5582**
Quasi-static thermal stresses in the sea ice [1994, eng] **48-5578**
Scale effects in distribution of the floe internal stresses [1994, eng] **48-5583**

Sukhorukov, V.A.
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin [1992, rus] **48-3723**

Sullivan, C.W.
Microbial production in the Weddell Sea pack ice [1992, eng] **48-3779**
Release of an ice-active substance by antarctic sea ice diatoms [1994, eng] **48-3043**
Spring biochemical composition of sea ice diatoms in McMurdo Sound [1993, eng] **48-46**

Suman, J.C.
Pile uplift forces and the adfreeze phenomenon [1994, eng] **48-3019**

Sumitomo Rubber Industries Ltd
Car tyre for snow and ice usage [1993, eng] **48-5527**

Sun, J.L.
Frigid zone ice dike prediction system [1994, eng] **48-5604**

Sun, K.
Effect of ice layer on hydrodynamic pressure of structures [1993, eng] **48-1528**

Sun, R.N.
Diesel engine cold starting with catalytically ignited recirculated exhaust gas [1994, eng] **48-3092**

Sun, X.
Damage evolution during impact of an ice bar with lateral confinement [1993, eng] **48-4334**

Sun, X.B.
Engineering geology investigation report of Tanggula army service station [1992, chi] **48-1492**

Sun, Z.
Studies of the radiative properties of ice and mixed-phase clouds [1994, eng] **48-2592**

Sundin, E.
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia [1993, eng] **48-854**
Prediction of ice loads on a mast using general weather data [1994, eng] **48-5573**

Sundqvist, H.
Ice phase variables in cloud parameterization [1993, eng] **48-1745**
Parameterization of clouds in large-scale numerical models [1993, eng] **48-1882**

Sundsbø, P.A.
Computer simulation of wind and snow around buildings [1994, eng] **48-3881**

Sundvor, E.
Pleistocene ice scoring in the Arctic Ocean [1994, eng] **48-4662**

Super, A.B.
Mountain snowfall enhancement by cloud seeding in Colorado [1993, eng] **48-1470**
Sura, A.
Plastic snow fence system [1990, eng] **48-2169**
Surdyk, S.
Correlation of antarctic ice sheet radiometric and ground truth data [1993, eng] **48-1316**
Microwave spectral signatures over the antarctic ice sheet [1991, eng] **48-3711**
Surface observation climatic summaries for Ellsworth AFB, South Dakota
Surface observation climatic summaries for Ellsworth AFB, South Dakota [1991, eng] **48-4742**
Surface observation climatic summaries for Fairbanks IAP, Alaska
Surface observation climatic summaries for Fairbanks IAP, Alaska [1991, eng] **48-4722**
Surface observation climatic summaries for Fort Devens Ain, Massachusetts
Surface observation climatic summaries for Fort Devens Ain, Massachusetts [1991, eng] **48-4720**
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas [1991, eng] **48-4723**
Surface observation climatic summaries for Fulda AAF, Germany
Surface observation climatic summaries for Fulda AAF, Germany [1991, eng] **48-4743**
Surface observation climatic summaries for Illesheim, Germany
Surface observation climatic summaries for Illesheim, Germany [1991, eng] **48-4739**
Surface observation climatic summaries for Kunsan AB, Korea
Surface observation climatic summaries for Kunsan AB, Korea [1991, eng] **48-4738**
Surface observation climatic summaries for McGuire AFB, New Jersey
Surface observation climatic summaries for McGuire AFB, New Jersey [1991, eng] **48-4721**
Surface observation climatic summaries for Wright-Patterson AFB, Ohio
Surface observation climatic summaries for Wright-Patterson AFB, Ohio [1991, eng] **48-3671**
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany [1992, eng] **48-4746**
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon [1991, eng] **48-3669**
Surkov, G.A.
Analysis of spatial heterogeneity of ultimate ice compressive strength [1993, eng] **48-4329**
Method for evaluation of first-year ice hummock strength [1993, eng] **48-4336**
Selection of standard level for sea ice strength [1993, eng] **48-1036**
Strength parameters of hummocks: field observations and laboratory tests [1993, eng] **48-1033**
Suslov, A.A.
Using the working elements of earth moving machines under the conditions in Siberia and the Far North [1993, rus] **48-746**
Sutherland, D.G.
Ice masses on the move [1990, eng] **48-1504**
Suttie, E.D.
Local deposition of heavy metal emissions from point sources in Antarctica [1993, eng] **48-1232**
Sutton, P.J.
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea [1993, eng] **48-2023**
Sutton, R.
Rapid descent of mesospheric air into the stratospheric polar vortex [1993, eng] **48-627**
Sutulo, S.V.
Propeller thrust and torque in ice milling mode of icebreakers [1993, eng] **48-122**
Suzuki, A.
Cold region road maintenance in the 9th Five-Year Plan [1988, jpn] **48-576**
Pilot program to provide pedestrian space in winter [1989, jpn] **48-699**
Suzuki, K.
Chemical fluxes through a boreal forest snowpack during the snowmelt season [1993, eng] **48-1858**
Oxygen-18 of snow meltwater and snow cover [1993, jpn] **48-3187**
Snowmelt runoff in a boreal forest in Quebec (I) [1992, jpn] **48-3209**
Snowmelt runoff in a boreal forest in Quebec (II) [1992, jpn] **48-3210**
Suzuki, M.
Evaluation of the data measured by MSR related to snowpack parameter [1990, jpn] **48-4875**
Portable FM-CW radar for collecting the ground truth data of snowpack [1993, eng] **48-1723**
Standard design for fences to prevent snow collapse from cut slopes on highways [1987, jpn] **48-280**
Suzuki, T.
Analysis of snowfall characteristics and various snow disasters in urban area [1993, jpn] **48-2003**
Evaluating snow risk potential in urban areas [1993, jpn] **48-1980**
Method of treating backfill [1990, eng] **48-2164**
Microphysical feedback of cirrus cloud in climate change [1993, eng] **48-3500**
Snow melting system using the solar energy accumulated in the embankment [1993, eng] **48-1195**
Suzuki, Y.
Development of Japanese mechanical drills—personal reminiscences [1994, eng] **48-5325**
Measurement of horizontal stress in soil by freezing [1990, eng] **48-2268**
Suzuya, J.
Experimental study of snow drifting on two-level flat roofs [1993, jpn] **48-1996**
Svec, O.J.
Asphalt concrete low temperature performance [1992, eng] **48-2413**
Critical segregation potential—frost heave upper limit [1993, eng] **48-461**
Pavement crack routing and sealing [1993, eng] **48-5067**
Thermally induced stresses in asphalt concrete pavement [1993, eng] **48-5069**
Svechnikov, V.N.
Snow and ice cleaving machine [1992, eng] **48-5515**
Svendsen, J.I.
Palaeoecology of a late Allerød peat bed at Godöy, western Norway [1993, eng] **48-3798**
Svensson, E.C.
Low-frequency modes in amorphous ice [1994, eng] **48-5025**
Svensson, J.
Frost Data Base (FDB) [1993, swe] **48-3078**
Svensson, U.
Numerical modelling of phase change in freezing and thawing unsaturated soil [1993, eng] **48-1153**
Simulation of supercooling and size distribution in frazil ice dynamics [1994, eng] **48-3826**
Sveshnikov, A.M.
Dynamics of total ozone content in Antarctica [1993, rus] **48-2485**
Sveum, P.
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils [1993, eng] **48-3720**
Enhanced biological degradation of crude oil in a Spitsbergen tundra site [1993, eng] **48-3718**
Evaporation of crude oil and diesel from beach sediment [1993, eng] **48-3715**
Natural self cleaning of oil spills from arctic shorelines [1993, eng] **48-3721**
Svitek, T.
Stability of extraterrestrial planetary polar frosts [1992, eng] **48-991**
Svoboda, J.
Fallout distribution inferred from tundra plant tissues [1993, eng] **48-968**
Patterns of plant distribution within two polar desert landscapes [1994, eng] **48-3507**
Swadley, S.D.
Microwave cloud water parameter applied to aircraft icing [1994, eng] **48-5436**
Swainbank, R.C.
Alaska's mineral industry, 1992 [1993, eng] **48-1139**
Alaska's mineral industry 1993: a summary [1994, eng] **48-3114**
Swanner, W.C.
Water resources data for Alaska, water year 1992 [1993, eng] **48-1462**
Swanson, D.K.
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993 [1993, eng] **48-2497**
Warm permafrost soils of interior Alaska [1993, eng] **48-2282**
Swart, P.K.
Climate change in continental isotopic records [1993, eng] **48-1494**
Swartz, R.
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia [1994, eng] **48-3388**
Sweet, E.J.
Diesel engine cold starting with catalytically ignited recirculated exhaust gas [1994, eng] **48-3092**
Swift, C.T.
Comment on paper by St. Germain et al [1993, eng] **48-3006**
Swinbank, R.
Dynamics of the arctic polar vortex during the EASOE campaign [1994, eng] **48-5439**
Stratosphere-troposphere data assimilation system [1994, eng] **48-4067**
Swinzow, G.K.
On winter warfare [1993, eng] **48-1003**
Switsur, R.
Glacial geological evidence for the medieval warm period [1994, eng] **48-4970**
Sykes, R.B.
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York [1993, eng] **48-2959**
Symader, W.
Snowmelt and water quality changes in small rivers [1993, eng] **48-1776**
Syvitski, J.P.M.
Baffin Island fjord macrobenthos: bottom communities and environmental significance [1989, eng] **48-3430**
Fiord suspended sediment composition related to glacial runoff [1992, eng] **48-2006**
Glaciomarine environments in Canada: an overview [1993, eng] **48-345**
Szczypa, E.
New data on radionuclide content in the Barents Sea and on the shore [1994, eng] **48-4277**
Szczypa, J.
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts [1993, eng] **48-4554**
Sze, N.D.
Two-dimensional model of the stratosphere. 2. [1993, eng] **48-3637**
Szeicz, J.M.
Age-dependent tree-ring growth responses of subarctic white spruce to climate [1994, eng] **48-4808**
Szeliga, T.L.
Gridded snow water equivalent estimation using ground-based and airborne snow data [1993, eng] **48-2930**
Szentimrey, T.
Local estimation of power line icing in Hungary [1993, eng] **48-810**
Szeto, J.T.
Airborne spectroscopy of arctic winter stratosphere [1992, eng] **48-2637**
Szilder, K.
Density and structure of ice accretion predicted by a random- walk model [1993, eng] **48-957**
Influence of the Stefan number on interface position [1993, eng] **48-2734**
Simulation of icicle growth using a 3D random walk model [1993, eng] **48-817**
Sztobryn, M.
Longterm changes in ice conditions at the Polish coast of the Baltic Sea [1994, eng] **48-5571**
Szykowski, J.P.
Formulating automatic transmission fluids with improved low temperature fluidity [1991, eng] **48-3931**
Szymczak, W.
Transparency changes in waters of Admiralty Bay [1992, eng] **48-539**
Taalas, P.
Stratospheric ozone variations in the European Arctic [1994, eng] **48-5442**
Tabary, L.
ERS-1 microwave radiometer [1994, eng] **48-4035**
Tabatabai, M.
Pilot field project to evaluate icing models in Ontario, Canada [1993, eng] **48-823**
Tabazadeh, A.
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols [1993, eng] **48-3730**
Model of heterogeneous nucleation on ice surfaces [1993, eng] **48-188**
Tabler, R.D.
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment [1993, eng] **48-2970**
New guidelines for blowing snow control [1993, eng] **48-1194**
Tabunshchikov, IU.A.
HVAC technology and trade in Russia and other East European countries [1994, eng] **48-3855**
New method for estimating the heat effectiveness of a building in extreme climatic conditions [1994, eng] **48-3874**
Tachibana, H.
Pollution of fallen snow in urban areas [1994, eng] **48-3966**
Tachibana, Y.
Effect of the equatorial Pacific on Okhotsk Sea ice [1990, jpn] **48-4672**
Radar echo patterns related to land breeze intensity [1992, jpn] **48-3211**
Tachimori, T.
Anti-frost system for a windshield of a motor vehicle [1990, eng] **48-2199**
Tada, N.
Mechanics of a turning snow ski [1994, eng] **48-4716**
Tagaya, K.
Freeze/thaw resistance of steel/concrete hybrid structures [1991, eng] **48-4041**
Taguchi, S.
Ice algae in the subarctic ocean: review [1990, eng] **48-4673**
Nutrient enrichment of high arctic ice algae from Resolute [1993, eng] **48-1083**
Taguchi, T.
Control device for a snow melter [1986, jpn] **48-37**
Taguchi, Y.
Experimental study on local ice pressures acting on structures [1993, jpn] **48-1038**

Study on ice forces acting on floating structures [1990, jpn] 48-4677

Taira, H.
Snow-cover condition in Japan and damage of the sugi *(Cryptomeria japonica* D. Don) [1991, eng] 48-3703

Tajima, K.
Snowmobile [1989, eng] 48-4087

Takada, H.
Anti-frost system for a windshield of a motor vehicle [1990, eng] 48-2199
Anti-frost system for motor vehicle windshield utilizing saturated steam calculator [1991, eng] 48-2228

Takada, Y.
Earthquake response of offshore structures in sea ice (part 7) [1993, jpn] 48-1035

Takagi, M.
Near real time satellite SAR image data transmission system [1993, eng] 48-1055

Takagi, N.
Spectroscopy of ice grown on solid surfaces [1993, eng] 48-1917

Takahashi, A.
Borehole drilling for sewage disposal at Asuka Station, East Antarctica [1994, eng] 48-5347
Development of high resolution ice echo sounder [1993, eng] 48-1065
Emergency readiness in heavy snow region. Part 1 [1993, jpn] 48-1978
Emergency readiness in heavy snow region. Part 2 [1993, jpn] 48-1979

Takahashi, K.
Road surface temperature and road surroundings relations observed in thermal mapping [1993, jpn] 48-1975
Wind tunnel test for snowbreak forests along a highway [1993, jpn] 48-1972

Takahashi, N.
Palsa formation in the Daisetsu Mountains, Japan [1993, eng] 48-5238

Takahashi, O.
Simple temperature estimation method in asphalt mixture layers [1993, eng] 48-5080

Takahashi, S.
Japanese expedition to Spitsbergen 1991-1992 [1993, eng] 48-1857
Lead distribution in the sea ice area in the Sea of Okhotsk and the Arctic [1990, eng] 48-4679
Measurement of atmospheric radiation for winter road management [1993, eng] 48-1206
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992 [1993, eng] 48-1861
Plan of Dome-F Station for deep ice-coring by JARE [1994, eng] 48-5365
Powered snowplow [1991, eng] 48-2246

Takahashi, T.
Aggregation of snow crystals in the early growth stage [1992, jpn] 48-3202
Return period conversion coefficient for ground snow load on design [1993, jpn] 48-1995
Sawauchi Village Institute of Snow Country Culture [1989, jpn] 48-673

Takami, S.
Improved gauge for winter precipitation measurements [1993, eng] 48-2855
Pulsed flow control device for snow removal drains [1992, jpn] 48-3160

Takamoto, M.
Kanazawa in snow [1986, jpn] 48-34

Takaoka City Road Maintenance Office
Tandem rotary snowplow [1986, jpn] 48-38

Takashima, H.
Proposal of proper choice of ice tolerant coating films [1993, jpn] 48-1042

Takashima, I.
Composite materials for arctic use [1993, jpn] 48-1041

Takashima, T.
Ice crystal orientation effect on light scattering in clouds [1989, eng] 48-1475

Takatsuka, T.
Boundary layer under landfast ice in Hudson Bay (IV) [1992, jpn] 48-3213
Pack ice off Hokkaido, Jan.-Apr. 1992 [1992, jpn] 48-3157
Turbulence measurements under landfast ice in the high Canadian Arctic [1993, eng] 48-1081

Takayama, K.
Withstand voltage and flashover performance of iced insulators [1993, eng] 48-847

Takebayashi, T.
Northernmost winter roads [1987, jpn] 48-282

Takeda, K.
Growth condition of a segregated ice layer and the segregation potential [1993, eng] 48-886
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment [1993, eng] 48-2443
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis [1994, eng] 48-3793

Takeda, T.
Snow and ice countermeasures in 1985 [1986, jpn] 48-17
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido [1992, jpn] 48-3212

Takeda, Y.
Winter road-surface conditions and pavement problems in Hokkaido [1993, eng] 48-5084

Takegoshi, E.
Experimental study on melting process of ice containing conductive copper solids [1993, eng] 48-894

Takeichi, K.
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements [1992, eng] 48-2115

Takenaka, N.
Acceleration of oxidation-reduction reactions in freezing solution [1993, eng] 48-1866

Takenouchi, T.
Selection of the winter representative precipitation station within a basin [1993, eng] 48-2973

Takeo, H.
Effect of the orientation of a finned surface on the melting of frozen porous media [1994, eng] 48-2060

Takeshita, M.
Snow blower arrangement [1992, eng] 48-4424

Takeuchi, H.
Concrete precooling method by means of dry ice [1993, eng] 48-2371

Takeuchi, M.
Methane emissions from Canadian peatlands [1994, eng] 48-4994
Visibility reduction by snow in the wake of highway vehicles [1993, jpn] 48-1968
Visibility reduction caused by snow and a driver's eye movement [1993, jpn] 48-1967
Visibility reduction caused by snow in the wake of vehicles on highways [1993, eng] 48-1201
Visual range in airborne snow particles [1991, jpn] 48-3423
Weather observation and its use for road management [1986, jpn] 48-31

Takeuchi, T.
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model [1994, eng] 48-5559
Total ice forces on multi-legged offshore structures [1993, eng] 48-4318
Uniaxial compressive strength and elastic modulus of sea ice [1993, eng] 48-4327
Water circulation and flow regimes in Lake Saroma [1993, eng] 48-1076

Takeuchi, Y.
Effect of snow cover on the thermal characteristics of the surface layer [1992, jpn] 48-3208
On the breakup of the nocturnal cooling layer in a basin in snowmelt season [1992, jpn] 48-3207

Takiguchi, E.
Pneumatic tire having expanded outer tread rubber layer [1993, eng] 48-4365
Pneumatic tire suitable for running on snow and ice roads [1988, eng] 48-4270

Takizawa, T.
Flow and oceanic structure under fast ice in Lützow-Holm Bay [1993, eng] 48-1060
Sea-ice growth in Ongul Strait, Antarctica [1993, eng] 48-2834
Thermal structure of the coastal polynya off Showa Station [1993, jpn] 48-2875
Thermal structure of the Cosmonaut Polynya region in the Antarctic [1993, eng] 48-1059

Talalai, P.G.
Investigation of the ice cutting process by the rotary drill [1994, eng] 48-5339
KEMS-112 electromechanical ice core drill [1994, eng] 48-5340

Talbot, R.W.
Canadian tropospheric odd nitrogen species distribution [1994, eng] 48-4633
Organic acids and selected nitrogen species for ABLE-3 [1991, eng] 48-4856

Talbot, T.N.
Investigation of the feasibility of operating large tethered aerostats in the Arctic [1984, eng] 48-4400

Talipov, M.A.
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan [1990, rus] 48-1237
Hydrogeology and engineering geology of the Kirghiz SSR [1990, rus] 48-1236

Talukdar, R.K.
Temperature dependence of the HNO_3 UV absorption cross sections [1993, eng] 48-2472

Tam, K.K.
Five-year experience of low-temperature performance of recycled hot mix [1992, eng] 48-2111

Tamaki, M.
Study on countermeasures for snowdrifts and drifting snow on National Highway 113 [1986, jpn] 48-259

Tamura, K.
Freeze/thaw resistance of steel/concrete hybrid structures [1991, eng] 48-4041
Proposal of proper choice of ice tolerant coating films [1993, jpn] 48-1042

Tamura, M.
Automatic system for controlling snow on roofs [1993, eng] 48-2837
Classification of the various types and characteristics of snowfall sensor [1993, jpn] 48-3182

Tan, F.C.
Sea water isotopic variations during ice formation [1993, eng] 48-227

Tan, M.F.
Preliminary measurements of acoustic emission in young artificial sea ice [1993, eng] 48-4335

Tan, W.P.
Index system for delineating landslide regions [1992, eng] 48-4409

Tanaka, H.
Thermodynamic stability of clathrate hydrate [1994, eng] 48-4261

Tanaka, M.
Microphysical feedback of cirrus cloud in climate change [1993, eng] 48-3500

Tanaka, N.
LANDSAT detection of northern Finland vegetation change [1994, eng] 48-4997
Satellite detection of the boreal forest-tundra transition [1993, eng] 48-1697

Tanaka, S.
Development of water resources from snow dams [1988, jpn] 48-657

Tanaka, T.
Forecasting of snow accretion on power lines [1992, jpn] 48-3163

Tanaka, Y.
Development of a JARE deep ice core drill system [1994, eng] 48-5337
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal [1990, jpn] 48-3424
Properties of concrete at very low temperature [1982, eng] 48-5394

Tang, S.C.
Calculation of frost heave stress acting on the foundation bottom [1993, eng] 48-462

Tang, X.B.
Tamping to control highway frost heave [1993, eng] 48-463

Tang, Z.H.
Fossil ice and periglacial structure in Chinese mountain soils [1993, eng] 48-508

Tanimura, K.
OH radical formation in electron-irradiated ice [1993, eng] 48-2052

Tanis, F.J.
Optical properties for sea ice measured during LEADEX '92 [1993, eng] 48-1703

Tanker under retrofit for arctic service gets new propulsion design
Tanker under retrofit for arctic service gets new propulsion design [1993, eng] 48-605

Tansei, H.
Tyre tread pattern for heavy-duty vehicle travelling on icy road [1993, eng] 48-5526

Tao, D.L.
Cell wall and freezing injury: a mini-review [1993, eng] 48-1256

Tao, L.J.
Laboratory simulation of atmospheric motions in the vicinity of Antarctica [1993, eng] 48-2146

Tao, X.
On the distribution of cold air near the vortex edge in the lower stratosphere [1994, eng] 48-3145

Tao, Y.X.
Numerical investigation of infiltration into frozen soil [1993, eng] 48-888
Thermal and moisture response of fibrous insulation [1994, eng] 48-3873

Tao, Z.X.
Analysis of the second phase transition of sodium chloride solution in freezing soil [1993, eng] 48-497
Measuring heat conductivity of frozen soil [1993, eng] 48-464
Method determining the thermal conductivity of frozen soil with the heat flow meter [1992, chi] 48-1414
Second order phase change in saline freezing soil [1992, chi] 48-1411
Study on the general thermal parameters of the frozen NaCl soil [1993, chi] 48-1436
Thermal conductivity and its determination technique for building insulation materials [1993, chi] 48-1437

Tarasewich, A.
Frost free heat exchanger [1989, eng] 48-4084

Tarasick, D.W.
Record low ozone values over Canada in early 1993 [1993, eng] 48-1114

Tarasov, A.M.
Siberian permafrost surveys [1993, eng] 48-415

Tarasov, G.A.
Quaternary geology of the shelf areas surrounding Franz Josef Land [1994, eng] 48-5639

Tarnawski, V.R.
Modeling the thermal conductivity of frozen soils [1993, eng] 48-2731

Tarnocai, C.
International tour of permafrost affected soils: the Yukon and Northwest Territories of Canada [1993, eng] 48-2498

Paleoclimatic implications of Canadian Pleistocene stratigraphy [1993, eng] 48-972
Principles of the Canadian cryosol classification [1993, eng] 48-2274

Tart, B.
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia [1994, eng] 48-3388

Tartari, G.
Annual snow accumulation in the Langtang region [1993, eng] 48-2782

Tashiro, K.
Relation between snow and damage on external wall of reinforced concrete construction [1993, jpn] 48-1983

Taskaev, A.I.
Radioecology of the northern and northwestern part of Russia [1993, eng] 48-4563

Tatarnikov, A.N.
Ice block forming device, using heat carrier stream cutting [1992, eng] 48-5511

Tatsuno, H.
Evaluating snow risk potential in urban areas [1993, jpn] 48-1980

Tausnev, N.L.
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin [1992, rus] 48-3723

Tavrizov, V.M.
Experience in freezing a polynya [1993, eng] 48-930

Taylor, A.E.
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf [1993, eng] 48-372

Taylor, B.R.
Regional and temporal patterns of total solutes in the Saskatchewan River basin [1993, eng] 48-63
Total solutes loads and geochemical yields in the Saskatchewan River basin [1993, eng] 48-64

Taylor, C.R.
Arizona DOT develops winter management plan [1993, eng] 48-1763

Taylor, D.P.
Variability of runoff from partially-glacierised alpine basins [1990, eng] 48-1587

Taylor, F.W.
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS [1993, eng] 48-4220

Taylor, H.W.
Fallout distribution inferred from tundra plant tissues [1993, eng] 48-968

Taylor, K.C.
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores [1993, eng] 48-1899
Preliminary depth-age scale of the GISP2 ice core [1994, eng] 48-5407

Taylor, P.L.
Vertical strain measurement in core holes [1994, eng] 48-5350

Taylor, R.B.
Ice in the shore zone and the geomorphology of cold coasts [1994, eng] 48-4974

Taylor, R.V.
Short- and long-term patterns of soil moisture in alpine tundra [1994, eng] 48-3502

Taylor, S.
Analytical method for white phosphorus residues in munitions- contaminated sediments [1993, eng] 48-1526
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] 48-3792

Tchebakova, N.M.
Global vegetation model based on the climatological approach of Budyko [1993, eng] 48-1280

Tedesco, K.
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation [1993, eng] 48-1248
Heinrich events in the Labrador Sea [1993, eng] 48-4188

Teets, E.
Experimental study of growth and phase change of polar stratospheric cloud particles [1992, eng] 48-3698

Teitelbaum, H.
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE [1994, eng] 48-5508

Tellefsen, T.P.
Development of multipurpose icebreaker and offshore construction vessel [1993, eng] 48-113
Multipurpose icebreaker and offshore construction vessel [1993, eng] 48-4345

Teller, J.T.
Pleistocene glacial-lake spillway incision [1994, eng] 48-5140

Tellini, C.
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy) [1993, eng] 48-362
Winter testing for permafrost identification [1993, ita] 48-1133

Ten Brink, U.
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations [1993, eng] 48-3291

Teng, C.E.
Artificial freezing of oil polluted and saline soils [1994, eng] 48-5595

Tengbert, T.
Welding of quenched and tempered steel at low temperatures [1994, eng] 48-3982

Tennyson, E.J.
Results from oil-spill response research 1991-1992 [1993, eng] 48-793

Tenoudji, F.C.
Model of elastic wave propagation in frozen media—comparison with experiment [1993, eng] 48-417

Teplinskaia, N.G.
Processes of bacterial production and destruction of organic matter in northern seas [1990, rus] 48-305

Terada, A.
Progress and future prospects for snow and cold weather operations [1987, jpn] 48-269

Terada, H.
Large scale avalanche at the Hakuba snow patch occurred on May 4th, 1992 [1993, jpn] 48-3178
Model project for establishing an avalanche warning and evacuation system [1993, eng] 48-2861
Warning system for snow avalanches [1994, eng] 48-4933

Teramoto, H.
Freeze/thaw resistance of steel/concrete hybrid structures [1991, eng] 48-4041

Terao, T.
Excipient stabilization of protein freeze-drying [1994, eng] 48-4657

Terashima, T.
Factors influencing the coefficient of friction between sea ice and various materials [1993, eng] 48-95

Terzi, V.F.
Extinction and scattering of millimeter waves by cloud and precipitation particles [1992, eng] 48-1022

Tesaker, E.
Ice formation in steep rivers [1994, eng] 48-5601

Tests on world champion icebreaker successfully completed at Rauma
Tests on world champion icebreaker successfully completed at Rauma [1993, ger] 48-3279

Tetel'baum, A.S.
Forecasting thermokarst with a computer [1992, rus] 48-4796

Tetteh-Wayoe, H.
Low temperature properties of asphalt cements [1993, eng] 48-5071

Teucher, F.
Iceload investigations on insulators and aerial warning balls for overhead lines [1993, eng] 48-633

Texier, J.P.
New data on the presence of permafrost in Aquitaine during the last glaciations [1993, fre] 48-5047

Tezkan, B.
Tidal gravity effects on the Ekström ice shelf [1993, eng] 48-231

Thapa, K.B.
Estimation of snowmelt runoff from remote sensing data [1993, eng] 48-2773

Theodose, T.A.
Nutrient cycle constraints in alpine tundra communities [1993, eng] 48-2558

Thériault, J.M.
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions [1993, eng] 48-4819

Theriault, P.
Carboniferous calcretes in the Canadian Arctic [1993, eng] 48-1937

Thiede, J.
Arctic Ocean and its geologic record: research history and perspectives [1994, eng] 48-5632
Marine geology of the Arctic Ocean—summary [1994, eng] 48-5642
Polar continental margins: studies off East Greenland [1993, eng] 48-2149

Thiel, K.H.
Information extraction from ERS-1 SAR data in antarctic research [1994, eng] 48-3475

Thierbach, R.
Radar ice thickness measurements in north Victoria Land [1993, eng] 48-2708

Thimus, J.F.
Ultrasonic measurements in frozen soils [1993, eng] 48-465

Thoma, L.
Ice-pavement bond prevention: surface modification [1992, eng] 48-4897

Thomas, D.N.
Phytoplankton variations in Weddell Sea ice formation [1993, eng] 48-2411

Thomas, G.E.
Numerical simulations of the effects of gravity waves on noctilucent clouds [1994, eng] 48-3144

Thomas, H.
Freezing tolerance in contrasting ryegrass genotypes [1993, eng] 48-3936

Thomas, J.E.
North Slope Borough's experiences with incineration [1989, eng] 48-4136

Thomas, J.P.
Comparison of arctic and antarctic mesoscale vortices [1993, eng] 48-199
High latitude atmospheric circulation observed with the ERS-1 [1994, eng] 48-3476
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images [1994, eng] 48-3455

Thomas, L.
Lidar of ice crystals associated with noctilucent clouds [1994, eng] 48-4694

Thomas, P.
Polar deposits on Mars [1992, eng] 48-5042

Thomas, R.H.
ERS-1 radar- and airborne laser altimetry over Greenland [1994, eng] 48-3442
Report on polar regions AVHRR workshop [1993, eng] 48-1293

Thomas, W.L., III
Bering Sea topside icing probabilities for two naval combatants [1991, eng] 48-4735
Prediction of bow spray frequency for a naval combatant [1993, eng] 48-169

Thomason, L.W.
Stratospheric aerosols used to predict antarctic vortices [1993, eng] 48-2473

Thompson, C.A.
Winter-associated changes in dry-soil aggregation as influenced by management [1993, eng] 48-3240

Thompson, L.
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals [1994, eng] 48-5354
Spatial variations of chemical species in Guliya ice cap [1993, chi] 48-4575

Thompson, L.G.
Terrestrial photogrammetry of Andean glacier retreat [1992, eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat [1993, eng] 48-1894

Thompson, R.
Study of Canadian applications for Thyssen-Waas icebreaking bow [1990, eng] 48-3336

Thompson, T.
Sea ice mapping and icebreaker operations in the Gulf of Bothnia [1994, eng] 48-3449

Thomsen, T.
Permafrost studies in Greenland [1993, eng] 48-5214

Thomson, J.F.
Arctic response to CO_2-induced climatic warming [1993, eng] 48-4205

Thonnard, P.T.
Temporal variation in aerosol composition at Summit, Greenland, summer 1989 [1993, eng] 48-3915

Thorhallsdottir, T.E.
Response of arctic tundra to inundation from reservoir flooding [1993, eng] 48-941

Thorne, P.G.
Evaluation of the use of supercritical fluids for the extraction of explosives and their degradation products from soil [1994, eng] 48-5310

Thorpe, P.C.
Portable device for the simulation of air frosts at remote field locations [1993, eng] 48-2468

Thorsteins, E.
Data analysis of icing measurements in Iceland [1993, eng] 48-845

Thorud, R.A.
Single stage snowthrower [1991, eng] 48-2225
Snowthrower with resilient impeller [1990, eng] 48-2183

Threlfall, J.L.
Sampling standards for arctic sediment transfer studies [1988, eng] 48-2567

Thurman, E.M.
Alpine stream geochemistry, Colorado Front Range [1990, eng] 48-2341

Thyssen, F.
Bottom melting on FRIS: results from different methods [1992, eng] 48-237
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland [1993, eng] 48-4267
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps [1993, eng] 48-4152

Tian, X.
Measurement of cleavage strength in ice crystals by a laser spallation technique [1994, eng] 48-3787

Tiback, B.G.
Hard insert for ice/snow clearing tool [1991, eng] 48-2233

Tielens, A.G.G.M.
Methanol ice in the protostar GL 2136 [1992, eng] 48-3617

Tighe, B.J.
Freeze-thaw fabrication of macroporous hydrogel polymers [1993, eng] 48-5015

Tikhonov, P.S.
Bacterial destruction of proteins and protein composition of saprophytic bacteria in the Barents Sea belonging to different ecological groups [1991, rus] 48-2529

Tillotson, H.B.
Removable snowthrower chute [1992, eng] 48-2239
Snowthrower with resilient impeller [1990, eng] 48-2183

Tilsworth, T.
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer [1994, eng] **48-3385**
Timchenko, N.S.
Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil [1992, rus] **48-4793**
Timco, G.W.
Computation of sheet ice forces on a faceted conical structure [1993, eng] **48-142**
Flexural strength equation for sea ice [1994, eng] **48-3831**
Ice load distribution on a faceted conical structure [1993, eng] **48-150**
Ice loading on a multifaceted conical structure [1993, eng] **48-2690**
Ice loading on a multifaceted conical structure [1993, eng] **48-4316**
Influence of compliance of structure on ice load [1994, eng] **48-5560**
Laboratory impact tests on freshwater ice [1993, eng] **48-2735**
Laboratory testing of a flexible boom for ice management [1993, eng] **48-2688**
Load transmission through ice rubble on the Gulf Molikpaq [1993, eng] **48-2687**
Parametric sensitivity in ice force calculation models [1994, eng] **48-5575**
Review of ice forces and failure modes on the Molikpaq [1994, eng] **48-5620**
Second report of the IAHR Working Group on Ice Modelling Materials [1992, eng] **48-1560**
Timerev, A.A.
Periodic temperature inversions in the arctic troposphere [1993, eng] **48-1825**
Timofeev, A.I.
Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual [1991, rus] **48-1266**
Timofeev, A.M.
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete [1994, eng] **48-3956**
Timoshenko, N.K.
Arctic yesterday and today [1992, rus] **48-2741**
Tinbergen, J.
Polarimetric search for ice crystals in the upper atmosphere of Venus [1993, eng] **48-1213**
Tinsley, B.A.
Comment and reply on paper by Tinsley et al [1993, eng] **48-955**
Tinwell, P.R.
Improving the cold start of spark ignition engines [1994, eng] **48-3090**
Tison, J.L.
Chemical and isotopic distribution in ice due to water freezing in Antarctica [1993, eng] **48-2137**
Debris entrainment at an antarctic glacier bed [1993, eng] **48-2393**
Diamond wire-saw cutting of debris-laden ice [1994, eng] **48-5177**
Low salinity frazil ice at ice shelf base [1993, eng] **48-48**
Titaeva, N.A.
Radioecology of the northern and northwestern part of Russia [1993, eng] **48-4563**
Tjemkes, S.
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery [1993, eng] **48-1294**
Tjuatja, S.
Analysis of backscattering from snow covers on arctic and antarctic sea ice [1993, eng] **48-1704**
Tobiasson, W.
General considerations for roofs [1994, eng] **48-4008**
Installation of a protected membrane roof at the windiest place on earth [1994, eng] **48-3962**
Stress analysis of a proposed tunnel under the South Pole skiway [1993, eng] **48-2963**
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof [1994, eng] **48-3413**
Ventilating attics to minimize icings at eaves [1994, eng] **48-3860**
Tobita, J.
Future aspects of cities in snowy region [1993, jpn] **48-1977**
Toda, H.
Methane emissions from Canadian peatlands [1994, eng] **48-4994**
Todaro, C.
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps) [1993, ita] **48-4114**
Todres, H.A.
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta [1994, eng] **48-3370**
Togashi, Y.
Study on blowing snow countermeasures and traffic control [1986, jpn] **48-258**
Toh, H.
Thinning rate of ice sheet on Mizuho Plateau [1992, eng] **48-919**
Tohoku Regional Construction Bureau
Tohoku regional snow and cold weather operations [1988, jpn] **48-578**
Toikka, M.
Portable radar for ice thickness measurements [1994, eng] **48-3103**
Scatterometer measurements of arctic sea ice at C-band [1993, eng] **48-1701**
Tokarczyk, R.
Sources of organobromines to the arctic temperature [1993, eng] **48-3058**
Tokay, A.
Mesoscale structure of a severe ice storm [1994, eng] **48-5437**
Tokikawa, K.
Field investigation of spray icing on offshore experimental structure [1990, jpn] **48-4668**
Tokizawa, M.
Experimental study on melting process of ice containing conductive copper solids [1993, eng] **48-894**
Tokmagambetov, G.A.
Calculating the volume of mountain glaciers from their area [1992, rus] **48-4461**
Dynamics of the development of morainal formations on the northern slope of Zailiyskiy Alatau [1992, rus] **48-4464**
Tokmagambetov, T.G.
Dynamics of the deve opment of morainal formations on the northern slope of Zailiyskiy Alatau [1992, rus] **48-4464**
Tokumitsu, K.
Low temperature properties of asphalts and asphaltic mixtures [1993, eng] **48-5089**
Tokunaga, M.
Note on the theory of the Ih-XI transition in ice [1993, eng] **48-3499**
Tolbert, M.A.
Spectroscopic studies of model polar stratospheric cloud films [1992, eng] **48-2635**
Sulfate aerosols and polar stratospheric cloud formation [1994, eng] **48-3734**
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone [1993, eng] **48-592**
Toledano, P.
Theory of ice structures [1993, eng] **48-931**
Tomabechi, T.
Emergency readiness in heavy snow region. Part 1 [1993, jpn] **48-1978**
Emergency readiness in heavy snow region. Part 2 [1993, jpn] **48-1979**
Fundamental study on removal of snow by sliding from the roof of membrane structures [1993, jpn] **48-1994**
Investigation of the roof shape and roofing materials of wooden houses in Sapporo [1993, jpn] **48-1990**
On the adfreeze properties of damaged roofing [1993, jpn] **48-1992**
Study on the adfreeze properties of roofing materials [1993, jpn] **48-1991**
Tomasino, M.
G.I.S. analysis of snow cover-hydroelectric potential variables [1993, ita] **48-4109**
Tomita, H.
Measurement of thermal stresses in asphalt concrete mixtures [1993, eng] **48-403**
Tomlinson, D.W.
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations [1994, eng] **48-4380**
Toner, M.
Model of diffusion-limited ice growth inside biological cells during freezing [1994, eng] **48-4282**
Tong, B.L.
Effects of gold mining on permafrost in Inner Mongolia [1993, eng] **48-5248**
Ice wedges in northeastern China [1993, eng] **48-466**
Tong, C.J.
Shallow foundation in the region of frozen ground [1993, eng] **48-467**
Toogood, R.D.
Ice certification of the Dornier 328 regional airliner [1991, eng] **48-3693**
Toomey, P.R.M.
Master mariner's perspective on the performance of icebreakers [1994, en ;] **48-4310**
Toon, G.C.
Airborne spectroscopy of arctic winter stratosphere [1992, eng] **48-2637**
Toon, O.B.
Airborne Arctic Stratospheric Expedition II: an overview [1993, eng] **48-2577**
Ice cloud formation in the Martian atmosphere [1993, eng] **48-1617**
Topham, D.R.
Stratified flow under an ice keel—a numerical approach [1993, eng] **48-69**
Torcini, A.
Molecular dynamics results for stretched water [1993, eng] **48-1620**
Torgashov, Y.Y.
Peculiarities of pile behavior in thawing soils [1993, eng] **48-534**
Tosaka, M.
Research studies on the snow load on roofs (2) [1993, jpn] **48-1997**
Toste, A.P.
Membrane fatty acid analysis of antarctic bacteria [1993, eng] **48-3823**
Toukairin, A.
Similarity between thermal ice ridge and plate tectonics [1993, eng] **48-1087**
Toumi, R.
Importance of the reactions between OH and ClO for stratospheric ozone [1993, eng] **48-2575**
Reaction of ClO with NO_3: OClO formation and nighttime O_3 loss [1994, eng] **48-5509**
Stratospheric ozone depletion by ClONO2 photolysis [1993, eng] **48-336**
Toyama Prefecture Civil Engineering Department
Development of snow melting works using sewage treatment water [1988, jpn] **48-660**
Toyo Tire and Rubber Company Ltd
Tyre slip prevention device [1989, eng] **48-4420**
Toyoda, S.
Knowledge-based system for condensation diagnostics in houses [1994, eng] **48-3848**
Toyota, T.
Ice forecasting in the southern Okhotsk Sea [1993, jpn] **48-1069**
Tozawa, S.
Experimental study on local ice pressures acting on structures [1993, jpn] **48-1038**
Study on ice forces acting on floating structures [1990, jpn] **48-4677**
Tracey, R.W.
Applying skin effect current tracing to pipeline heating [1979, eng] **48-4140**
Tranquilla, J.M.
Range errors in global positioning system during ice cloud and snowfall periods [1994, eng] **48-4164**
Tranter, M.
Conceptual model of solute acquisition by alpine glacial meltwaters [1993, eng] **48-3583**
Episodic acidification of freshwater systems in Canada [1994, eng] **48-3621**
Geochemical analysis of snow samples [1993, eng] **48-2047**
Hydrogeochemistry of an alpine proglacial stream [1994, eng] **48-3258**
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland [1990, eng] **48-1589**
Snow-atmosphere interactions in arctic snowpacks [1993, eng] **48-2952**
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff [1993, eng] **48-1775**
Trapeznikov, A.
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals [1993, eng] **48-4528**
Tratnyek, J.P.
Ice melter comprising an alpha-methyl glucoside and method of making same [1990, eng] **48-2257**
Travis, M.D.
Applying field-expedient bioreactors and landfarming in Alaskan climates [1994, eng] **48-4004**
Tregub, G.A.
On the problem of reservoir freezeover [1992, eng] **48-1548**
River ice and the water quality in hydropower plant reservoirs [1994, eng] **48-5552**
Tremblay, C.
Quaternary geology and geocryology in Nunavik, Canada [1993, eng] **48-350**
Tremont, J.D.
Surface-transportation networks of the Alaskan North Slope [1987, eng] **48-3298**
Tremp, J.
Occurrence and the fate of organic pollutants in the atmosphere [1993, eng] **48-219**
Tremper, B.
Computer applications for avalanche forecasting in the United States [1993, eng] **48-2826**
Triantafyllou, M.S.
Proceedings. Vol.2 [1993, eng] **48-4312**
Tributsch, W.
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view [1993, eng] **48-4092**
Triebfürst, B.
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula [1994, eng] **48-3454**
Trimble, D.A.
Volcanic ash strata related to Colville Valley deglaciation [1992, eng] **48-3236**
Trimborn, P.
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife) [1991, ger] **48-3659**
Tritt, P.G.
De-icer; inflatable tubes [1991, eng] **48-2248**
Triulzi, C.
Radioecology of Terra Nova Bay [1992, ita] **48-4211**
Troendle, C.A.
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes [1993, eng] **48-2966**
Snowfall into a forest and clearing [1989, eng] **48-1746**

Troesch, A.W.
Nonlinear dynamic response of a simple ice-structure interaction model [1993, eng] **48-2686**

Trofimov, V.T.
Dynamic instability of seasonally thawing silty soils [1994, eng] **48-4840**

Trofymow, J.A.
Effects of freeze-thaw stress on bacterial populations in soil microcosms [1983, eng] **48-3411**

Trombotto, D.
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina [1993, eng] **48-5240**

Tromso Skipsverft
Ship reinforcement for negotiating ice [1992, eng] **48-4423**

Trottier, J.F.
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures [1992, eng] **48-2080**

Troy, C.T.
Laser ice probe aids ozone study [1993, eng] **48-2431**

Trubikhin, N.A.
Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs [1992, rus] **48-1949**

Truskov, P.A.
Analysis of spatial heterogeneity of ultimate ice compressive strength [1993, eng] **48-4329**
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone [1993, eng] **48-176**
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone [1993, eng] **48-1048**
Method for evaluation of first-year ice hummock strength [1993, eng] **48-4336**
Sea ice strength variability due to various ice column axis orientation [1993, eng] **48-4337**
Selection of standard level for sea ice strength [1993, eng] **48-1036**
Strength parameters of hummocks: field observations and laboratory tests [1993, eng] **48-1033**

Trusov, E.N.
Design values of strength characteristics of frozen saline soils [1993, eng] **48-1102**

Tryde, P.
Denmark marine foreland formation and glacial eustasy [1993, eng] **48-1384**
Super elliptic bridge piers for ice forces [1993, eng] **48-149**

Tsang, G.
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2 [1990, eng] **48-4007**
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1) [1992, eng] **48-4010**

Tsantis, A.P.
Automobile heater using a latent heat storage device [1994, eng] **48-3094**

Tsatsoulis, C.
Dynamic local thresholding technique for sea ice classification [1993, eng] **48-1694**
Extraction and analysis of sea ice leads from SAR images [1993, eng] **48-1691**
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery [1993, eng] **48-1692**

Tschannen, H.
Device for positioning and attaching an auxiliary snow-chain device for motor vehicles [1990, eng] **48-2198**

Tschervova, E.I.
Siberian permafrost surveys [1993, eng] **48-415**

Tse, J.S.
Lattice dynamics of clathrate hydrates [1993, eng] **48-2350**

Tseng, P.H.
Modeling of snowpack melting variations [1994, eng] **48-5387**

Tseng, Y.H.
Velocity pattern in a transect across Ice Stream B, Antarctica [1993, eng] **48-3582**

Tsigel'naia, I.D.
Water balance of Kyrgyzstan [1992, rus] **48-187**

Tsoi, L.G.
Classification of ships by icebreaking capability [1993, eng] **48-115**
Efficiency of using non-traditional hull lines for icebreakers [1994, eng] **48-4307**
Ice propulsion of the icebreaker *Kapitan Sorokin* with conventional forebody [1993, eng] **48-114**
Improvement of traditional icebreaker hull lines [1994, eng] **48-5628**
New generation Arktika class nuclear icebreaker feasibility study [1994, eng] **48-4304**

Tsong, C.W.
Ice jam breakup flood discharge on the Yellow River [1994, eng] **48-5542**

Tsuchida, Y.
Experimental study of pressure ridge modeling and indentation tests [1993, jpn] **48-1032**

Tsuji, Y.
Concrete precooling method by means of dry ice [1993, eng] **48-2371**

Tsujimoto, A.
Field performance of porous asphalt pavement in cold areas [1993, eng] **48-5085**

Tsukamura, K.
JARE-31 meteorological observations at Showa and Asuka stations in 1990 [1993, jpn] **48-1183**

Tsukano, H.
Experiment on using overflow lines for snow melting [1988, jpn] **48-663**

Tsukui, K.
On the creep tests of ice dome model in a low temperature laboratory [1993, jpn] **48-2002**

Tsunaki, R.
Estimating snow avalanche runout distances from topographic data [1993, eng] **48-2860**

Tsurikov, A.
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia [1994, eng] **48-3407**

Tsushima, K.
Development and regional implementation of snow electric power generation systems [1986, jpn] **48-29**
Tribology of skiing and skating [1994, jpn] **48-3997**

Tsutsumi, M.
Reduction of terrestrial gamma rays by snow cover [1990, jpn] **48-3675**

Tsvyk, R.Sh.
Distribution functions of the intensity fluctuations of a laser beam in snowfall [1993, eng] **48-2145**

Tsyban', A.V.
Study of the ecosystem of the Bering and Chukchi seas [1992, rus] **48-653**

Tsypkin, G.G.
Gas hydrate dissociation from ice matrix in natural reservoirs [1993, eng] **48-1739**
Gas hydrate dissociation regime in highly permeable beds [1993, eng] **48-974**

Tubertini, O.
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991) [1993, eng] **48-4534**

Tuck, A.F.
Comparison of arctic stratosphere chemistry survey data [1993, eng] **48-626**
On the distribution of cold air near the vortex edge in the lower stratosphere [1994, eng] **48-3145**
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica [1993, eng] **48-624**

Tucker, J.R.
Model ice forces on a multi-faceted cone [1993, eng] **48-144**

Tucker, W.B.
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo* [1994, eng] **48-3269**

Tucker, Z.A.
Orographic microbursts in a severe winter windstorm [1993, eng] **48-1960**

Tuhkuri, J.
Experimental investigations on extrusion of crushed ice [1994, eng] **48-5586**
Laboratory investigations of ice-structure contact [1993, eng] **48-151**
Laboratory tests of ship structures under ice loading. Vols. 2 and 3 [1993, eng] **48-1963**
Ship-ice contact and design ice loads [1994, eng] **48-4290**

Tumeo, M.A.
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers [1990, eng] **48-4686**
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer [1994, eng] **48-3385**
Hydrocarbon exclusion from ground water during freezing [1993, eng] **48-1241**

Tumurbaatar, D.
Seasonal freezing and thawing grounds of Mongolia [1993, eng] **48-5241**

Tunaley, J.K.E.
Aspects of the detection of oil under sea ice using radar methods [1986, eng] **48-4175**

Tunik, A.L.
Ice cover thickness distribution during a North Pole crossing [1994, eng] **48-3253**

Turco, R.P.
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols [1993, eng] **48-3730**
Model of heterogeneous nucleation on ice surfaces [1993, eng] **48-188**
Upper-atmosphere aerosols: properties and natural cycles [1992, eng] **48-4860**

Turner, B.J.
Identification of turbulence structures above a forest canopy using a wavelet transform [1994, eng] **48-4636**

Turner, J.
Comparison of arctic and antarctic mesoscale vortices [1993, eng] **48-199**
High latitude atmospheric circulation observed with the ERS-1 [1994, eng] **48-3476**
Mesoscale vortex over Halley Station, Antarctica [1993, eng] **48-1834**
Report on polar low workshop [1993, eng] **48-2459**
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images [1994, eng] **48-3455**
Winds at the North Pole [1993, eng] **48-2218**

Turner, R.
Field test comparison of calcium magnesium acetate to salt [1993, eng] **48-1272**

Turner, R.F.
Geological, geochemical, and operational summary, Aurora Well [1994, eng] **48-3329**

Turner, R.H.
Dynamics of marginal ice formation—analysis of an ice-slip- and-fall case [1990, eng] **48-2630**

Tursina, T.V.
Micromorphology for diagnostics of the modern and paleocryosoils features [1993, eng] **48-2287**

Tuthill, A.M.
Effects of navigation in ice on near-shore vegetation and sediment [1994, eng] **48-5547**

Tuzova, T.V.
Uranium and tritium in the glacial lakes of northern Tien Shan [1994, eng] **48-4061**

Tweedy, J.
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada [1993, eng] **48-2394**
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada [1994, eng] **48-5171**

Twickler, M.S.
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] **48-192**

Twitchell, P.F.
Report on polar low workshop [1993, eng] **48-2459**

Twomey, S.
Discrimination of ice from water in clouds by optical remote sensing [1987, eng] **48-2087**

Tzeng, R.Y.
Katabatic surges across the Ross Ice Shelf [1993, eng] **48-201**
Simulation of the modern arctic climate by the NCAR CCM1 [1994, eng] **48-5132**

Tzschichholz, F.
Scattering of light by two-dimensional fractals [1993, eng] **48-2992**

U.S. Arctic Research Commission
Report of the U.S. Arctic Research Commission, 1992-1993 [1994, eng] **48-3120**

U.S. Army Cold Regions Research and Engineering Laboratory
CRREL retrospective 1986-1991 [1992, eng] **48-2132**
CRREL's first 25 years, 1961-1986 [1986, eng] **48-2070**

U.S. Army Corps of Engineers
Computer program for battlefield environment simulation [1993, eng] **48-786**

U.S. Army Corps of Engineers. Alaska District
Deep draft navigation reconnaissance report, Cook Inlet, Alaska [1993, eng] **48-2097**
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska [1993, eng] **48-1126**

U.S. Federal Aviation Administration
Winter operations guidance for air carriers, and other adverse weather topics [1982, eng] **48-1144**

U.S. Interagency Arctic Research Policy Committee
Arctic research of the United States, Vol.7 [1993, eng] **48-1464**
Arctic research of the United States, Vol.7 [1993, eng] **48-2122**

U.S. National Science Foundation
United States Antarctic Program. Science Program Plan 1991-92 [1991, eng] **48-3822**
United States Antarctic Program. Science Program Plan 1992- 93 [1992, eng] **48-2656**

U.S. Naval Support Force Antarctica
Final report of Operation Deep Freeze '91 (1990-91) [1991, eng] **48-1531**
Operation Deep Freeze 92/93 end of season report [1993, eng] **48-1663**
Operation Deep Freeze 93/94 end of season report [1994, eng] **48-4651**

Uchida, S.
Development of new low lift snow-retardant insulated wire for overhead distribution line [1993, eng] **48-1827**

Uchida, T.
Brittle zone and air-hydrate formation in polar ice sheets [1994, eng] **48-5356**
Effect of hydrostatic pressure on the formation of air-hydrate crystals [1993, eng] **48-1865**
Effects of air-hydrate crystals on ice grain growth [1993, eng] **48-1864**
Effects of various factors on rime icing; water vapor content [1993, jpn] **48-3169**
Formation process of clathrate air-hydrate crystals in polar ice sheets [1992, jpn] **48-3219**
Optimized storage condition of deep ice core samples [1994, eng] **48-5357**
Surface energy of air-hydrate crystals in Vostok ice core [1993, eng] **48-1863**

Uchiyama, K.
Research studies on the snow load on roofs (2) [1993, jpn] **48-1997**
Wooden bracing and wall length for a snow-proof house [1993, jpn] **48-1998**

AUTHOR INDEX

Ueda, A.
Acceleration of oxidation-reduction reactions in freezing solution [1993, eng] **48-1866**
Ueda, S.
Current status and study topics for the dissemination of road traffic information [1986, jpn] **48-255**
Road weather data collection instruments [1986, jpn] **48-257**
Uehara, S.
Satellite data utilization for estimating ablation of debris covered glaciers [1993, eng] **48-2774**
Uematsu, E.
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea [1993, eng] **48-1062**
Uematsu, T.
Numerical simulation of snowdrift [1992, jpn] **48-3167**
Numerical study on snow transport and drift formation [1993, eng] **48-2841**
Three dimensional numerical simulation of snowdrift [1993, eng] **48-1786**
Uematsu, Y.
Experimental study of snow drifting on two-level flat roofs [1993, jpn] **48-1996**
Ueno, K.
Precipitation environment in the Langtang Valley, Nepal Himalayas [1993, eng] **48-2786**
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas [1993, eng] **48-2792**
Ueno, M.
Satellite time series monitoring of Okhotsk Sea ice in 1992 [1993, jpn] **48-1067**
Uenzelmann-Neben, G.
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks [1993, eng] **48-4266**
Ugarov, I.S.
Procedures for building open irrigation channels with a high ground ice level [1992, rus] **48-4787**
Ugursal, V.I.
Burner-assisted residential air-source heat pump [1994, eng] **48-3852**
Ujiie, A.
Design of a snow melting tank using treated wastewater [1994, eng] **48-5008**
Ulander, L.M.H.
ERS-1 SAR analysis of arctic ice concentration during the melt season [1993, eng] **48-1686**
Radar backscatter from sea ice during freeze-up [1993, eng] **48-1227**
Theory of SAR radiometric calibration [1990, eng] **48-1772**
Ulrich, R.
Permafrost influence on mountain tunnelling [1993, eng] **48-468**
Umejima, M.
Winter on five mountain roads [1988, jpn] **48-664**
Umemura, A.
Hydraulic transport of snow by pipe [1986, jpn] **48-32**
Umemura, T.
Comparison of Japanese snow removal technologies [1993, eng] **48-2872**
Construction estimate of runway on East Ongul I. [1993, jpn] **48-1184**
Machines for feeder control in hydraulic transport of snow [1992, jpn] **48-3159**
Umpirovich, E.I.
Trolley for transporting snow removal equipment on runways [1992, eng] **48-5514**
Umscheid, L.J.
Modeling of antarctic ozone hole dynamics [1994, eng] **48-3037**
Union Carbide Chemicals and Plastics, Inc.
UCAR anti-icing fluid UC 5.1 [1992, eng] **48-4059**
UCAR deicing fluid concentrate and 50/50 [1992, eng] **48-4057**
UCAR deicing fluid XL 54 [1992, eng] **48-4058**
UCAR runway deicing fluid [1989, eng] **48-4017**
Union Carbide Corporation
UCAR aircraft deicing fluid typical storage system [1987, eng] **48-4042**
UCAR runway deicing fluid typical storage system [1987, eng] **48-4043**
Untersteiner, N.
Some problems of sea ice and climate modelling [1990, eng] **48-3128**
Updike, R.G.
Earthquake Alaska—are we prepared [1994, eng] **48-5035**
Ura, H.
Synoptic observation of sea ice [1990, jpn] **48-4877**
Urano, S.
Fractal analysis of frost-resistant reinforced cement [1993, eng] **48-1601**
Uranov, E.N.
37th Soviet Antarctic Expedition (SAE) [1992, eng] **48-739**
Uratsuka, S.
Development of high resolution ice echo sounder [1993, eng] **48-1065**
Urdea, P.
Permafrost and periglacial forms in the Romanian Carpathians [1993, eng] **48-469**
Urlaub, A.
Improvement of the cold start qualities of diesel engines with swirl chambers [1994, eng] **48-3084**
Urroz, G.E.
Two-layer model of ice-covered channel flow [1994, eng] **48-4247**
Usachev, V.F.
Snow cover of an area according to observation data from stations and satellites [1992, eng] **48-1768**
Uscinski, B.J.
Sound propagation with a linear sound-speed profile over a rough surface [1993, eng] **48-1376**
Ushio, S.
Flow and oceanic structure under fast ice in Lützow-Holm Bay [1993, eng] **48-1060**
Frazil ice production in coastal polynyas [1993, eng] **48-1357**
Sea-ice growth in Ongul Strait, Antarctica [1993, eng] **48-2834**
Thermal structure of the coastal polynya off Showa Station [1993, jpn] **48-2875**
Ushiyama, T.
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido [1992, jpn] **48-3212**
Ussler, W., III
Radon 222 tracing of boreal forest gas exchange [1994, eng] **48-4639**
Usterud, O.
Challenges within oil and gas exploration and production in arctic regions [1994, eng] **48-5562**
Usupaev, Sh.E.
Role of water in the formation of the characteristics of forest soils in northern Tian Shan [1990, rus] **48-1239**
Utkin, A.I.
Experimental investigations of some polar sailing problems [1993, eng] **48-4347**
Uto, S.
Study on ice tank experimentation (part 2) [1993, eng] **48-174**
Uttal, T.
Cloud ice effects on downward atmospheric longwave radiation [1994, eng] **48-4474**
Utz, W.
Monitoring vibrations in a nuclear icebreaker [1990, ger] **48-3929**
Uvarov, V.N.
Characteristics of the reconstruction of the mass balance of a continental type glacier [1992, rus] **48-4456**
Uziak, S.
Influence of relief and lithology on soil formation in West Spitsbergen [1993, eng] **48-414**
Vaani, K.
Field tests of liquid salt and pre-wetted salt [1993, fin] **48-3067**
Vachier, P.
Soil water chemistry during active layer refreezing [1993, fre] **48-970**
Vachon, P.W.
Airborne synthetic aperture radar observations and simulations for waves in ice [1993, eng] **48-977**
Analysis of atmospheric lee waves near Hopen [1994, eng] **48-3477**
Vågstedt, N.G.
Experimental car and trailer axle cornering characteristics at low friction conditions [1994, eng] **48-3107**
Vahanvaty, M.A.
High frequency acoustic properties of urea ice [1990, eng] **48-2695**
Vaikmäe, R.
Analysis of Siberian fossil glacier ice [1993, eng] **48-1009**
Vainikainen, P.
Portable radar for ice thickness measurements [1994, eng] **48-3103**
Vaisberg, P.M.
Device for testing ski sliding surface [1990, eng] **48-2187**
Vajda, T.
Oxidation in frozen aqueous solutions [1993, eng] **48-2216**
Vakhnenko, S.V.
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone [1992, rus] **48-186**
Vakili, J.
Highwall stability in strip mines in permafrost [1994, eng] **48-3392**
Highwall stability in strip mines in permafrost [1993, eng] **48-5242**
Vakulenko, T.IA.
Effect of aqueous solutions of anti-icing additive on Thiokol sealants [1993, eng] **48-982**
Vakulovskii, S.M.
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean [1993, eng] **48-4524**
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992 [1993, eng] **48-4532**
Transport of artificial radioactivity by the Ob' to the arctic seas [1993, eng] **48-4522**
Valanto, P.
Evaluation and improvement of icebreaker performance [1994, eng] **48-4296**
Valanto, P.U.
Numerical model of the icebreaking process at the bow of a ship advancing in level ice [1993, eng] **48-170**
Valarezo, W.O.
Adverse aerodynamic impact of leading-edge ice buildups [1991, eng] **48-3691**
Aerodynamic effects of leading-edge ice accretion [1993, eng] **48-5027**
Valenti, C.
Comparative antarctic ozone spectrophotometry [1993, eng] **48-1360**
Valentine, D.W.
Ecosystem and physiological controls over methane production in northern wetlands [1994, eng] **48-4612**
Valentini, P.
Contributions of Val d'Ultimo glaciers to basin water supply [1993, ita] **48-4110**
Valeriote, M.A.
Engineering a 300 km winter haul road in Canada's Arctic [1994, eng] **48-3374**
Valero, F.P.J.
Brightness temperatures of the arctic winter troposphere [1993, eng] **48-2590**
Optical depths and haze particle sizes during AGASP III [1993, eng] **48-3901**
Vali, G.
Freezing rate due to heterogeneous nucleation [1994, eng] **48-5058**
Nucleation of ice [1991, eng] **48-1119**
Valinger, E.
Assessing the risk of snow and wind damage from tree physical characteristics [1993, eng] **48-1651**
Simulation of snow damage in pine forests [1994, eng] **48-5144**
Valkonen, S.
Forest regeneration at high altitudes in northern Finland [1992, fin] **48-2681**
Val'kov, V.A.
Snow and ice cleaving machine [1992, eng] **48-5515**
Valla, F.
Mass balance of Sarennes Glacier, France, 1989-90 [1993, fre] **48-4115**
Sarennes—a closely monitored glacier, Massif de l'Oisans, France [1993, fre] **48-3139**
Vallance, J.W.
Mexican volcanic lahar hazard assessment [1993, eng] **48-3233**
Vallander, P.
Impact of a repository on permafrost development during glaciation advance [1991, eng] **48-4761**
Vallauri, R.
Molecular dynamics results for stretched water [1993, eng] **48-1620**
Valliere, D.R.
Arctic research of the United States, Vol.7 [1993, eng] **48-1464**
Arctic research of the United States, Vol.7 [1993, eng] **48-2122**
Välttilä, J.
Radial shaft sealing systems in arctic conditions [1994, eng] **48-3983**
Radial shaft seals in arctic conditions [1994, eng] **48-3101**
Van Biervliet, L.
Behavior of a concrete slab cooled to cryogenic temperature [1982, eng] **48-5397**
Van Campo, E.
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum [1993, eng] **48-3560**
Van Cauwenberghe, R.
Wind and ice load monitoring on a test line [1993, eng] **48-839**
Van Cleve, K.
Alkaline soil chemistry on the Tanana River floodplain [1993, eng] **48-641**
Climate of the Tanana River floodplain near Fairbanks, Alaska [1993, eng] **48-639**
Control of soil development on the Tanana River floodplain, interior Alaska [1993, eng] **48-643**
Effects of saline soils on Tanana River floodplain revegetation [1993, eng] **48-650**
Effects of soil salinity on forest success on a subarctic floodplain [1993, eng] **48-637**
Floodplain soil denitrification along the Tanana River [1993, eng] **48-644**
Floodplain surface soil chemistry along the Tanana River [1993, eng] **48-647**
Long-term ecological research on the Bonanza Creek experimental forest [1993, eng] **48-2124**
Nitrogen mineralization in floodplain soils of the Tanana River [1993, eng] **48-645**
Soil nitrification in forest floodplain ecosystems, Tanana River [1993, eng] **48-646**

Tanana River floodplain soil chemistry [1993, eng] 48-640

Van de Wal, R.S.W.
Energy balance model of the Greenland ice sheet [1994, eng] 48-3520
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice [1994, eng] 48-3838
Glacier mass balance, pt. 2. Application to Greenland ice sheet [1991, eng] 48-3654
Greenland ice sheet ablation and meltwater runoff measurements [1994, eng] 48-3514

Van den Berg, E.
Placement of cryosols in soil taxonomy [1993, eng] 48-2273

Van den Broeke, M.R.
Katabatic flow over glacier and tundra during GIMEX-91 [1994, eng] 48-3513
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91 [1994, eng] 48-3512

Van der Elsken, J.
Small angle x-ray scattering in the early stages of ice formation [1991, eng] 48-3754

Van der Loeff, M.M.R.
^{228}RA as a tracer for shelf water in the Arctic Ocean [1993, eng] 48-4544
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}PA [1993, eng] 48-4545

Van der Meer, J.J.M.
Drumlins in a full alpine setting: some examples from Switzerland [1992, eng] 48-2520
Micromorphology of till from Shackleton Range [1993, eng] 48-4269

Van der Veen, C.J.
Controls on changes in the West Antarctic ice sheet [1993, eng] 48-4180
Development of fabric in ice [1994, eng] 48-3251
New and improved determinations of velocity of Ice Streams B and C, West Antarctica [1993, eng] 48-3574
Patterns of calculated basal drag on Ice Streams B and C, Antarctica [1993, eng] 48-3569
Seasonal variations in brightness temperature for central Antarctica [1993, eng] 48-1339

Van Der Wateren, F.M.
Glacial geology of Central and North Victoria Land, Antarctica [1992, eng] 48-741

Van Deusen, D.A.
Strains due to load in frozen and thawed flexible pavements [1994, eng] 48-4912

Van Dyne, M.
Extraction and analysis of sea ice leads from SAR images [1993, eng] 48-1691

Van Everdingen, R.O.
Multi-lingual index of permafrost terms [1993, eng] 48-470

Van Haneghem, I.A.
Time delay in the water-ice phase change during soil freezing [1993, eng] 48-887

Van Haveren, B.P.
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain [1994, eng] 48-3506

Van Hemert, W.
Valdez initiates sludge disposal operations [1993, eng] 48-1886

Van Hengst, J.
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics [1991, eng] 48-3692

Van Katwijk, V.F.
Effect of simulated climate change on snowmelt runoff modeling in selected basins [1993, eng] 48-2019
Snowmelt runoff forecasts in Colorado with remote sensing [1990, eng] 48-1596

Van Klaveren, R.W.
Facility for hydraulic tests of a frozen soil [1993, eng] 48-3837

Van Loon, H.
Modulation of the atmospheric annual cycle in the Southern Hemisphere [1994, eng] 48-4927

Van Loon, W.K.P.
Time delay in the water-ice phase change during soil freezing [1993, eng] 48-887

Van Meurs, P.
Diagnostic modelling studies of the Iceland-Faeroe front [1993, eng] 48-3751

Van Orshoven, D.
Investigation of water as a refrigerant [1993, eng] 48-2612

Van Rompu, E.A.
Freshwater tardigrades from Devon I., Canada [1992, eng] 48-3608

Van Roozendael, M.
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE [1994, eng] 48-5484
Stratospheric chemistry over the Swiss Alps [1994, eng] 48-5485

Van Steijn, H.
Debris flows involved in the development of Pleistocene stratified slope deposits [1988, eng] 48-2561

Van Tatenhove, F.G.M.
Drumlins in a full alpine setting: some examples from Switzerland [1992, eng] 48-2520

Van, V.M.
Protected species of vascular plants in the Komsomol'sk reservation (Russian Far East) [1993, rus] 48-1638

Van Vliet, L.J.P.
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget [1993, eng] 48-3141
Tillage variation effects on river basin runoff [1993, eng] 48-3140

Van Ypersele, J.P.
Coupled ocean and sea-ice models: review and perspectives [1989, eng] 48-222
Sea-ice interactions in polar regions [1993, eng] 48-3727

Van Zyl, J.J.
Change detection techniques for ERS-1 SAR data [1993, eng] 48-1229
Unusual radar echoes from the Greenland ice sheet [1993, eng] 48-538

Vanda, IU.A.
Fluctuations of the atmospheric circulation and climate changeability of polar regions [1994, eng] 48-3849

Vandenberghe, J.
Weichselian ice-wedge formation in Netherlands floodplains [1993, eng] 48-471

Van'ko, IU.V.
Ecological-geological regionalization of the cryolithozone in the USSR [1993, eng] 48-2540

Varan, C.O.
Ski with increased toe pinning ability [1990, eng] 48-2177

Varan, D.O.
Ski with increased toe pinning ability [1990, eng] 48-2177

Vargas, J.V.C.
When to defrost a refrigerator [1994, eng] 48-3815

Vargas, M.
Close-up analysis of aircraft ice accretion [1993, eng] 48-4885
Preliminary study on ice shape tracing with a laser light sheet [1993, eng] 48-2639

Varlamov, S.P.
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions [1992, rus] 48-4800

Varna, J.
Cold climate effects on composite materials—preliminary results [1994, eng] 48-3979

Varsta, P.
Full-scale observations of ship performance in ice [1993, eng] 48-106
Ship-ice contact and design ice loads [1994, eng] 48-4290

Vasekhina, N.A.
Snow cover of an area according to observation data from stations and satellites [1992, eng] 48-1768

Vashchilov, IU.IA.
Geophysical methods of cryology ecological monitoring [1993, eng] 48-5235

Vasil'chuk, IU.K.
Northern Asia cryolithozone evolution of Late Quaternary [1993, eng] 48-535

Vasilenko, E.V.
Hydrothermal implications of radio wave propagation in glaciers [1993, eng] 48-2400

Vasil'ev, A.A.
Geocryological properties of weathering crusts in Yakutia [1993, eng] 48-2542

Vasil'ev, E.A.
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea [1992, rus] 48-2742

Vasil'ev, F.
Construction in polar regions using local raw materials [1994, eng] 48-3948

Vasil'ev, I.S.
Dynamics of the elements of climate and the strength of the active layer in western Yakutia [1992, rus] 48-4779
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia [1993, eng] 48-2543

Vasil'ev, N.I.
Investigation of the ice cutting process by the rotary drill [1994, eng] 48-5339
KEMS-112 electromechanical ice core drill [1994, eng] 48-5340

Vasil'eva, I.M.
New species of the genus *Aquilegia* (Ranunculaceae) from Eastern Siberia [1992, rus] 48-1626

Vasil'eva, L.V.
Psychrophilic methanotroph from tundra soil [1993, eng] 48-4661

Vatne, G.
Mass balance and changes of surface slope of a Spitsbergen glacier [1993, eng] 48-3415

Vaudrey, K.D.
Potential hazards to shore approaches of arctic pipelines [1991, eng] 48-2704

Vaughan, D.G.
ERS-1 SAR: stress indicator for antarctic ice streams [1994, eng] 48-3445
Glaciological measurements on the south Ronne Ice Shelf [1991, eng] 48-8
Ice shelves on the Antarctic Peninsula: changing climate and sea level [1992, eng] 48-785
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level [1993, eng] 48-1674
Relating the occurrence of crevasses to surface strain rates [1993, eng] 48-2389
Snow surface temperatures in West Antarctica [1992, eng] 48-782
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica [1993, eng] 48-1325
Thematic maps of Filchner-Ronne Ice Shelf [1991, eng] 48-3
Use of visible satellite imagery over ice sheets [1992, eng] 48-917

Vaughan, G.
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields [1994, eng] 48-5506

Väyrynen, S.
Ergonomic machinery design for cold weather use [1992, eng] 48-4967

Vedamuthu, M.
Properties of liquid water: origin of the density anomalies [1994, eng] 48-4715

Vedrova, E.F.
Soils of the taiga land of Siberia [1988, rus] 48-309

Veevers, J.J.
Origin of the Gamburtsev Subglacial Mountains [1994, eng] 48-4982

Vefsnmo, S.
Drift and spread of oil in broken ice—field experiment [1994, eng] 48-5567
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice [1994, eng] 48-4924

Vega, M.
^{137}Cs areal concentration in two sites in the Southern Shetland Islands [1993, eng] 48-4536

Vega, R.
Laser ice removal system [1990, eng] 48-2197

Vega, R.M.
Laser ice removal system [1990, eng] 48-2197

Veiga, R.E.
Report of a 1990 polar stratospheric aerosol cloud [1994, eng] 48-4442

Veit, R.R.
Seabirds and fur seals near the Antarctic Peninsula in winter 1986 [1994, eng] 48-5153

Veitch, B.
Experiments with cutting tools to simulate propellers in ice [1993, eng] 48-2128
Ice cutting experiments with propeller blades [1994, eng] 48-5627
Propeller-ice impact process [1993, eng] 48-123

Velazquez, M.T.
Ice accretion and performance degradation calculations with LEWICE/NS [1993, eng] 48-4884

Velichko, A.A.
Soil formation and cryogenesis on the Russian plain during the last 125,000 years [1993, eng] 48-2285

Velikotskii, M.A.
Origin of dislocations in frozen sediments of the Yamal Peninsula [1992, rus] 48-1394
Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra [1993, rus] 48-3743

Venkatesh, S.
Oil spill behavior in ice-infested waters [1994, eng] 48-4920

Venter, R.D.
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system [1993, eng] 48-1837

Ventura, J.
Glaciers of the Pyrenees, Spain and France [1993, eng] 48-4029

Verbers, A.L.L.M.
Glacial geology of Central and North Victoria Land, Antarcti [1992, eng] 48-741

Verbiscer, A.J.
Photometry of icy satellite Mimas [1992, eng] 48-989

Verbitskii, M.
Heinrich-type glacial surges in a low-order dynamical climate model [1994, eng] 48-5370

Verbitskii, M.IA.
Cenozoic ice sheet response to free CO_2 variations [1993, eng] 48-4197
CO_2 and glacial cycles [1994, eng] 48-2912
General theory of Plio-Pleistocene climatic change [1993, eng] 48-2808
Modeling the Pleistocene ice ages [1990, eng] 48-1677

Verdhen, A.
Snowmelt runoff simulation models and their suitability in Himalayan conditions [1993, eng] 48-2788

Verlencar, X.N.
Production of organic matter in antarctic sea shelf [1992, eng] 48-1525

Vernet, M.
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea [1994, eng] 48-4018

AUTHOR INDEX

Verrall, R.I.
Sea ice cracking as an acoustic index of seabed reflectivity [1993, eng] **48-5128**
Verseef, J.H.
Adjustable one-way trip edge snow plow [1991, eng] **48-2254**
Verseghy, D.L.
Canadian Land Surface Scheme for GCMS, pt.2 [1993, eng] **48-1380**
Snow modelling in general circulation models (GCMs) [1993, eng] **48-1796**
Vertucci, F.A.
Biogeochemical fluxes in the Glacier Lakes catchments [1993, eng] **48-4120**
Verwijst, T.
Plant viability as a function of temperature stress [1993, eng] **48-2753**
Vestergaard, G.
Link rod for aircraft deicer vehicle [1993, eng] **48-4960**
Veth, C.
Phytoplankton ice-edge blooms in the northwestern Weddell Sea [1993, eng] **48-596**
Veverka, J.
Anomalous-scattering region on Triton [1992, eng] **48-990**
Photometry of icy satellite Mimas [1992, eng] **48-989**
Vialov, S.S.
Permafrost preservation during global warming [1993, eng] **48-537**
Vick, B.
Boundary element method applied to freezing and melting problems [1993, eng] **48-1738**
Videen, G.
Longwave radiative properties of polydispersed hexagonal ice crystals [1994, eng] **48-3807**
Vidic, N.
Paleomagnetic and Be-10 dating of glaciofluvial terraces [1993, eng] **48-1499**
Viehoff, T.
Ice processes [1991, eng] **48-4867**
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions [1994, eng] **48-3452**
Odden ice tongue in the Greenland Sea [1994, eng] **48-3453**
Vielvoye, R.
Field development projects advance in Norwegian Sea [1992, eng] **48-2456**
Viereck, L.A.
Climate of the Tanana River floodplain near Fairbanks, Alaska [1993, eng] **48-639**
Effects of saline soils on Tanana River floodplain revegetation [1993, eng] **48-650**
Effects of soil salinity on forest success on a subarctic floodplain [1993, eng] **48-637**
Floodplain ecosystems of the Tanana River, AK [1993, eng] **48-638**
Long-term ecological research on the Bonanza Creek experimental forest [1993, eng] **48-2124**
Viggosson, G.
Stabilisation of the tidal entrance at Hornafjordur, Iceland [1993, eng] **48-157**
Vigneault, C.
Effect of addition of water on snow compaction [1994, eng] **48-3745**
Vihma, T.
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy [1993, eng] **48-225**
Viklander, M.
Composition of melt water from urban snow. A laboratory study [1994, eng] **48-3968**
Vilaplana, J.M.
Geomorphology of Cape Shirreff, Livingston I. [1993, spa] **48-4688**
Vilhauer, J.E., Jr.
Easily activated and deactivated traction device for vehicles [1990, eng] **48-2176**
Villafañe, V.
Ultraviolet radiation effects on marine phytoplankton photosynthesis [1994, eng] **48-4388**
Villalba, R.
Patagonian glacial evidence for Little Ice Age warm period [1994, eng] **48-4972**
Villar, R.
Nitrogen uptake in arctic plants [1993, eng] **48-2374**
Villarán, M.C.
Sublimation in low-temperature dehydration processes [1993, eng] **48-1889**
Villinski, J.E.
Sulfur dioxide reactions on ice surfaces [1993, eng] **48-132**
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow [1993, eng] **48-3906**
Villone, B.
Air mass identification in relation to pollution episodes in Italian Alps [1991, eng] **48-4763**
Vinje, T.
General sea ice conditions [1992, eng] **48-2903**
Iceberg data from annual expeditions in the Barents Sea [1993, eng] **48-130**
Report of R/V cruises in Barents and Greenland Seas [1992, eng] **48-2896**
Vinson, T.S.
Linear construction in cold regions—paved roads and airfields [1993, eng] **48-5188**
Pavement performance and low temperature cracking of subarctic and arctic airfields [1993, eng] **48-472**
Virina, E.N.
Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra [1993, rus] **48-3743**
Virtanen, M.
Thermal coupling of leakage air and heat flows in buildings [1993, eng] **48-761**
Visbeck, M.
Greenland Sea hydrography—winter 1988-89 [1993, eng] **48-224**
Vischer, D.
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus [1993, ger] **48-1615**
Visconti, G.
Effects of aircraft exhaust on polar atmospheric chemistry [1993, eng] **48-2477**
Viskanta, R.
Upward solidification of a binary solution saturated porous medium [1993, eng] **48-697**
Vitt, D.H.
Canadian bog landforms in relation to permafrost patterns [1994, eng] **48-3501**
Vittorini, S.
Italian alpine climatic effects on glacier fluctuations [1993, ita] **48-4108**
Vivekanandan, J.
Polarimetric radar modeling of mixtures of precipitation particles [1993, eng] **48-2107**
Polarimetric radar studies of atmospheric ice particles [1994, eng] **48-5134**
Retrieval of storm microphysics using K(a) band radar observations [1993, eng] **48-1679**
Snowfall rate and supercooled liquid water content [1993, eng] **48-1725**
Vivian, R.
Alpine glaciers—memories and mirrors of civilization and a mountain environment [1989, fre] **48-1819**
Vlasov, V.P.
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region [1992, rus] **48-1267**
Geocryology of pile foundation engineering [1993, eng] **48-536**
Vodogretskiĭ, V.E.
Modeling surface flow hydrography of a spring flood in small rivers [1992, rus] **48-184**
Vogt, C.
Arctic Ocean Pleistocene-Holocene sedimentation rates [1994, eng] **48-5641**
Vogt, P.R.
Indications of methane-induced pockmarks in Fram Strait sediments [1994, eng] **48-3316**
Pleistocene ice scoring in the Arctic Ocean [1994, eng] **48-4662**
Vogt, T.
Cryogenic structures in Patagonia [1994, eng] **48-4827**
Voldborg, H.
Danish operational slippery-road-warning system and prospects for the future [1993, eng] **48-1205**
Volkov, V.A.
Report on the *Professor Multanovsky* cruise, 17 July-27 July 1991 [1992, eng] **48-2908**
Variability in the hydrophysical fields near drifting icebergs and safe navigation [1993, rus] **48-1904**
Volkova, N.V.
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere [1993, rus] **48-2490**
Volkova, V.G.
Method of ecological normalization of technogenic stresses [1990, rus] **48-2074**
Volkovskaia, L.E.
Annual dynamics of nutrient transition through the western boundary of the Barents Sea [1991, rus] **48-2525**
Völksen, C.
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf [1992, eng] **48-248**
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis [1994, eng] **48-3444**
Volotovskii, K.A.
Floristic findings in the Aldan highlands and Tokinsky Stanovik range [1993, rus] **48-5285**
Von Bodungen, B.
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean [1994, eng] **48-4019**
Von Clarmann, T.
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic [1994, eng] **48-5479**
Interferometer measurements of O_3, HNO_3 and $ClONO_2$ over the Arctic [1993, eng] **48-3640**
Spectroscopy of arctic polar night stratospheric gases [1993, eng] **48-1361**
Von Fircks, H.A.
Plant viability as a function of temperature stress [1993, eng] **48-2753**
Willow stem response to subzero temperatures [1993, eng] **48-2628**
Vonder Haar, T.H.
Helicopter icing module for TWI [1985, eng] **48-1277**
Vonder Mühll, D.S.
Survey of rock glaciers in the Swiss Alps [1993, eng] **48-473**
Vornberger, P.L.
Mass balance measurements on Ice Stream B, Antarctica [1993, eng] **48-3573**
Vorren, T.O.
Arctic Ocean and its geologic record: research history and perspectives [1994, eng] **48-5632**
Barents Sea sedimentation dynamics and paleoenvironment [1994, eng] **48-4986**
Marine geology of the Arctic Ocean—summary [1994, eng] **48-5642**
Vos, W.L.
Novel H2-H2O clathrates at high pressures [1993, eng] **48-1757**
Vostretsov, N.A.
Distribution functions of the intensity fluctuations of a laser beam in snowfall [1993, eng] **48-2145**
Vourlitis, G.L.
Carbon flux in unmanaged arctic ecosystems [1993, eng] **48-1884**
Open-top devices for manipulating field temperatures in tundra ecosystems [1993, eng] **48-880**
Voznesenskii, E.A.
Dynamic instability of seasonally thawing silty soils [1994, eng] **48-4840**
Vtiurin, G.M.
Problems of genesis and classification of north taiga soils of the European Russia [1993, eng] **48-2280**
Vtiurina, E.A.
Analysis of permafrost solifluction stages [1993, eng] **48-474**
Vtorushin, V.N.
Method of repairing cracks in ice mass [1992, eng] **48-5529**
Vuckovič, Z.
Damages to overhead lines from ice accretions in Serbia [1993, eng] **48-841**
Vugts, H.F.
Meteorological experiment in the melting zone of the Greenland ice sheet [1993, eng] **48-2059**
Vullierme, J.J.
Fiberglass thermal properties applied to helicopter blade deicer design [1993, eng] **48-2375**
Vychuzhin, T.A.
Coefficients of linear expansion of freezing soils [1993, eng] **48-70**
Failure of frozen argillaceous rock in an aqueous medium [1993, eng] **48-2373**
Vysotskii, V.N.
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North [1989, rus] **48-906**
Wacker, R.W.
Remote controlled snowthrower discharge chute deflector [1989, eng] **48-4083**
Wackerman, C.C.
SSM/I sea ice products validation [1991, eng] **48-3670**
Wada, J.
Prospects for measures to safeguard road traffic in winter [1987, jpn] **48-270**
Road freezing countermeasures in Europe [1987, jpn] **48-547**
Study on winter road management methods using forecast reports [1989, jpn] **48-668**
Wada, M.
Phase change from cloud droplets to snow particles [1993, eng] **48-1680**
Waddams, P.
Vendian geology of Svalbard [1993, eng] **48-1777**
Waddington, E.D.
Glacier geophysical studies for an ice-core site at Taylor Dome: year two [1992, eng] **48-2627**
Paleoclimate/ice sheet dynamics from antarctic ice cores [1993, eng] **48-4201**
Paleoclimatic implications of non-sea salt polar firn deposition [1993, eng] **48-3908**
Sensitivity of the ice-divide position in Greenland to climate change [1994, eng] **48-4444**
Waddington, I.E.
Preliminary depth-age scale of the GISP2 ice core [1994, eng] **48-5407**
Wadhams, P.
Errata. Global warming: a polar approach [1992, eng] **48-1535**
Odden ice tongue in the Greenland Sea [1994, eng] **48-3453**
Sea ice cover effect on sound wave propagation times [1993, eng] **48-45**
Snow and ice distribution in the Weddell Sea [1994, eng] **48-4168**
Waelbroeck, C.
Modelling of climate-soil processes in the presence of permafrost [1993, eng] **48-1613**

Wagenbach, D.
Results from the Colle Gnifetti ice-core programme [1994, eng] 48-2714
Special problems of mid-latitude glacier ice-core research [1994, eng] 48-2712
Wagner, B.
Modeling the thermal conductivity of frozen soils [1993, eng] 48-2731
Wagner, C.R.
Measurement of streamflow under ice cover in North America [1994, eng] 48-5591
Wagner, S.
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site [1994, eng] 48-2718
Wåhlin, P.
Arctic aerosols in Greenland [1993, eng] 48-3916
Wahsner, M.
Mineralogy of Arctic Ocean surface sediments [1994, eng] 48-5637
Waite, C.E.
Influence of elevated ozone on freezing tolerance of red spruce seedlings [1994, eng] 48-4288
Wakabayashi, H.
Backscatter from ice growing on shallow lakes [1993, eng] 48-1727
C-band backscatter model for lake ice in Alaska [1993, eng] 48-1714
Wakahama, G.
Aggregation of snow crystals in the early growth stage [1992, jpn] 48-3202
Effect of the equatorial Pacific on Okhotsk Sea ice [1990, jpn] 48-4672
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines [1993, eng] 48-850
Metamorphism in a perennial snow patch [1993, eng] 48-2838
Proceedings [1993, eng] 48-2817
Snowmelt over permafrost area in the arctic Alaska [1990, eng] 48-4670
Wakamatsu, K.
Warning system for snow accretion on power lines [1993, eng] 48-838
Wakatsuchi, M.
Frazil ice production in coastal polynyas [1993, eng] 48-2357
Satellite observations of ice/ocean eddies in the Okhotsk Sea [1990, eng] 48-4674
Wakatsuki, K.
New methods to study snowfall using remote sensing [1993, eng] 48-2874
Wake, A.
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics [1993, eng] 48-4323
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River [1994, eng] 48-5611
Wake, C.P.
Dust and marine aerosols in Central Asian glaciers [1993, eng] 48-2801
Dust deposits in Asian glaciers [1993, eng] 48-338
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia [1994, eng] 48-3542
Wakeford, B.
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States [1993, eng] 48-2707
Wakita, H.
Neutron diffraction of hydration in supercooled solutions [1994, eng] 48-3000
Wakonigg, H.
Surveys of the Pasterze Glacier, 1971-1990 [1991, ger] 48-3663
Walder, J.S.
Subglacial drainage beneath the Laurentide ice sheets [1994, eng] 48-3628
Waldhäusl, P.
Simple photogrammetric survey methods for glaciology and erosion control [1986, ger] 48-610
Waldum, A.M.
Restoration of masonry facades, renders and final coats in a severe climate [1993, eng] 48-1225
Waldvogel, A.
Analysis of accreted drop sizes and mass on rimed snow crystals [1994, eng] 48-5130
Walker, A.E.
Data needs for detection of climate change: some challenges [1993, eng] 48-1808
Discrimination of a wet snow cover using passive microwave satellite data [1993, eng] 48-1340
Snow cover distribution as climatic change indicator [1993, eng] 48-1312
Walker, C.W.
Building the DEW line [1957, eng] 48-289
Walker, D.A.
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment [1993, eng] 48-2970
Walker, G.
Stopping an ice stream [1993, eng] 48-774
Weather contributes to record ozone loss [1993, eng] 48-996
Walker, J.F.
Evaluation of selected methods for determining streamflow during periods of ice effect [1992, eng] 48-1870
Walker, L.R.
Soil nitrogen effects on Tanana River floodplain tree succession [1993, eng] 48-648
Walker, N.P.
Segmentation of ERS-1 sea ice imagery for polar operations [1994, eng] 48-3460
Wall, G.
Impacts of climate change on resource management in the North [1992, eng] 48-2030
Wallén, C.C.
Glaciers and the environment [1992, eng] 48-1136
Walling, D.E.
Erosion, debris flows and environment in mountain regions [1992, eng] 48-4405
Sediment sources and delivery in a drainage basin in Greenland [1992, eng] 48-4406
Walrafen, G.E.
Thermodynamic properties of supercooled liquid water [1994, eng] 48-5023
Walsh, J.E.
Global warming: sea ice and snow cover [1992, eng] 48-2035
Temperature variations in northern high latitudes, 1960-1990 [1993, eng] 48-1790
Walsh, K.J.
Climate model response to solar constant reduction [1993, eng] 48-2513
Walsh, M.E.
Analytical method for white phosphorus residues in munitions- contaminated sediments [1993, eng] 48-1526
Distribution of white phosphorus residues from the detonation of 81-mm mortar WP smoke rounds at an upland site [1993, eng] 48-1002
Environmental effects of crude oil spills in interior AK [1994, eng] 48-5115
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later [1993, eng] 48-722
Instability of tetryl to Soxhlet extraction [1994, eng] 48-3558
Preliminary evaluation of the analytical holding time for white phosphorus in surface water [1994, eng] 48-5405
Uptake and loss of white phosphorus in American kestrels [1994, eng] 48-3222
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska [1993, eng] 48-3792
Walsh, M.R.
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV) [1994, eng] 48-3095
End-capping procedure for cored ice samples used in tension tests [1993, eng] 48-3596
Ice auger extractor for retrieving augers or similar devices from a bore hole [1990, eng] 48-2168
Measurement of thermal stresses in asphalt concrete mixtures [1993, eng] 48-403
Thermal stress measurements in asphalt concrete [1993, eng] 48-720
Walsh, S.J.
Topographic influences on avalanche path location [1990, eng] 48-12
Walter, B.A.
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing [1993, eng] 48-1326
Walton, E.K.
Effect of wet snow on the null-reference ILS system [1993, eng] 48-1619
Wamser, C.
Internal atmospheric gravity waves near the coast of Antarctica [1993, eng] 48-1116
Wang, A.T.
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4 [1994, eng] 48-3012
Wang, B.L.
Borehole temperature equilibrium in permafrost [1993, chi] 48-4585
Geographic southern boundary of permafrost in the northeast of China [1993, eng] 48-5226
Simulation of subsea permafrost variations, Mackenzie Delta [1993, eng] 48-475
Wang, C.
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany [1993, eng] 48-1720
Three dimensional cloud dynamics model, pt.4 [1993, eng] 48-953
Wang, C.H.
Freeze-thaw action correlated to gold placer formation [1993, eng] 48-476
Index system for delineating landslide regions [1992, eng] 48-4409
Wang, C.S.
Consolidation of deep layer frozen soils in triaxial tests [1993, eng] 48-5222
Depth consolidation of frozen soils in triaxial tests [1993, chi] 48-4497
Destruction and rehabilitation of shaft lining in frozen shaft [1993, chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft [1993, eng] 48-5243
Wang, C.Y.
New method to obtain 3-D Green's functions for anisotropic solids [1993, eng] 48-5016
Wang, D.S.
Mathematical model for oil slick transport and mixing in rivers [1993, eng] 48-724
Numerical simulation of ice jam progression in the upper Niagara River [1994, eng] 48-5610
Study on frazil and anchor ice processes and development of a river ice model [1994, eng] 48-3547
Wang, D.Y.
Low temperature properties of asphalt cements [1993, eng] 48-5071
Wang, F.G.
Water and solute migration of freezing soils in closed system under temperature gradients [1992, eng] 48-1403
Wang, F.L.
Influence of freeze thaw cycles on soil carbon cycle [1993, eng] 48-1918
Wang, G.C.
Selection of an air pollution monitoring site [1992, chi] 48-1483
Wang, G.Y.
Snow cover effect on summer temperature and precipitation [1993, eng] 48-1718
Wang, G.Z.
Fossil ice and periglacial structure in Chinese mountain soils [1993, eng] 48-508
Wang, H.J.
Numerical simulation of the climatic change caused by CO2 doubling [1993, eng] 48-768
Numerical simulation of the ice age climate [1993, eng] 48-3221
Wang, H.X.
Ocean-atmosphere-ice sheet model of long-term climatic change [1993, eng] 48-4192
Wang, J.C.
Essential types of heave development for soil freezing [1993, chi] 48-1431
Heat-mass transfer and deformation in frozen saline kaolin [1992, chi] 48-1408
Influence of pore characteristic on deformation during material freezing [1993, chi] 48-1432
Influence of porous characteristic of material on displacement during freezing [1993, eng] 48-477
Overburden pressure and ice formation in clay [1993, chi] 48-1433
Pressure influence on pore characteristic of frozen soils [1992, chi] 48-1410
Pressure influence on pore characteristics of frozen soils [1993, eng] 48-5244
Primary study on interface conditions of ice saturated clay [1993, eng] 48-489
Primary study on interface conditions of ice-saturated clay [1992, chi] 48-1409
Wang, J.G.
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan [1992, chi] 48-2016
Frost heave in compacted earth dams [1993, eng] 48-5252
Wang, J.M.
Air pollution and atmospheric environmental effects [1992, chi] 48-1485
Wang, J.P.
Mathematical analysis of frozen shaft wall deformation [1993, eng] 48-478
Wang, L.W.
MST-88 multichannel temperature data logger [1993, chi] 48-4592
Wang, M.X.
Selection of an air pollution monitoring site [1992, chi] 48-1483
Wang, P.H.
Report of a 1990 polar stratospheric aerosol cloud [1994, eng] 48-4442
Wang, Q.
Permafrost hydrological processes in Binggou basin of Qilian Mountains [1993, eng] 48-491
Wang, R.S.
Frigid zone ice dike prediction system [1994, eng] 48-5604
Wang, S.L.
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway [1993, chi] 48-4589
Change of the artificial permafrost table under the roadbed and effect on the roadbed [1993, eng] 48-436
Permafrost change for asphalt pavement along Qinghai-Xizang highway [1993, eng] 48-5245

Wang, S.R.
Study of preventing frost heave with shaft construction for dissipating water energy [1993, chi] **48-4501**
Study on preventing frost heave of the shaft-type energy dissipator [1993, eng] **48-5246**
Wang, T.D.
Analogic conditions of simulation test of frozen soil's creep [1993, chi] **48-1443**
Laser detection of creep in frozen soil [1993, chi] **48-1456**
Study of practicability about photoviscoelastic simulation test of frozen soil's creep [1993, chi] **48-1444**
Wang, W.K.
Prevention of canal frost damage [1993, eng] **48-479**
Wang, X.L.
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions [1993, eng] **48-371**
On the minimum depth of bridge and culvert foundations in seasonal frost regions [1993, eng] **48-885**
Wang, X.Q.
Simulation of daily runoff in the Urumqi River basin with the improved tank model [1990, eng] **48-1598**
Wang, X.R.
Frigid zone ice dike prediction system [1994, eng] **48-5604**
Wang, Y.
Modeling *L*-band radar backscatter of Alaskan boreal forest [1993, eng] **48-2150**
Water and heat transfer in the active layer [1993, eng] **48-5247**
Wang, Y.J.
Overburden pressure and ice formation in clay [1993, chi] **48-1433**
Wang, Y.Q.
Frost susceptibility of powdered calcium carbonate [1993, eng] **48-5198**
Profiles of freezing point and unfrozen water content around CGWS, Antarctica [1993, eng] **48-480**
Wang, Y.X.
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China [1993, chi] **48-4392**
Effects of gold mining on permafrost in Inner Mongolia [1993, eng] **48-5248**
Regional features of permafrost in Mahan Mountain and their relationship to the environment [1993, chi] **48-4395**
Regional features of permafrost in Mahan Mountain and their relationship to the environment [1993, eng] **48-5224**
Wang, Z.
Computation of sheet ice and ridge ice forces on a faceted cone [1993, eng] **48-152**
Permafrost development in river basins [1993, eng] **48-488**
Wang, Z.C.
Degeneration of permafrost in upstream valley region of Heilong River [1993, eng] **48-493**
Wang, Z.T.
Glacial runoff effect on Chinese river flow [1992, eng] **48-302**
Mathematical analysis of frozen shaft wall deformation [1993, eng] **48-478**
Wang, Z.W.
Low power diamond rock coring parameters [1994, eng] **48-5336**
Wang, Z.Y.
Recent discovery of periglacial phenomena in Inner Mongolia [1993, eng] **48-5249**
Wankiewicz, A.
Multi-temporal microwave satellite observation of snowpacks [1993, eng] **48-1315**
Warburton, J.
Comparison of bed load yield estimates for a glacial meltwater stream [1990, eng] **48-1584**
Suspended sediment load and sources in alpine glacier basins [1990, eng] **48-1592**
Ward, C.A.
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system [1993, eng] **48-1837**
Ward, D.E.
Airborne measurements of gases and particles from an Alaskan wildfire [1993, eng] **48-1096**
Ward, M.A.
Use of fly ash aggregates to enhance concrete freeze-thaw durability [1993, eng] **48-956**
Ward, P.J.
Cell-free and whole cell ice nucleators and process for their production [1993, eng] **48-1282**
Warden, A.
Ancient climate from deuterium content of water in volcanic glass [1993, eng] **48-1500**
Wardle, D.I.
Record low ozone values over Canada in early 1993 [1993, eng] **48-1114**
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project [1993, eng] **48-2586**
Wardle, P.
Alpine vegetation of New Zealand: an ecological overview [1986, eng] **48-205**
Wareing, D.P.
Lidar of ice crystals associated with noctilucent clouds [1994, eng] **48-4694**
Wareing, J.B.
Monitoring of snow and ice accretion on overhead line test spans [1993, eng] **48-836**
Warn-Varnas, A.
Diagnostic modelling studies of the Iceland-Faeroe front [1993, eng] **48-3751**
Warner, J.L.
Frost free heat exchanger [1989, eng] **48-4084**
Warren, C.R.
Patagonian icefields: a glaciological review [1993, eng] **48-2417**
Warren, D.E.
Mesoscale vortex over Halley Station, Antarctica [1993, eng] **48-1834**
Warren, S.G.
Correction to paper by S.G. Warren et al [1993, eng] **48-1150**
Wartzok, D.
Under-ice movements and the sensory basis of hole finding by ringed and Weddell seals [1992, eng] **48-542**
Wassmann, P.
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea [1994, eng] **48-4018**
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea [1993, eng] **48-595**
Watanabe, H.
Recycling systems for waste materials of reconstruction of streets in Sapporo City [1993, eng] **48-5076**
Watanabe, K.
Snow and ice melting system for road or exposed surface [1993, eng] **48-4436**
Watanabe, M.
Experimental study on adfreezing strength of snow and ice against roofing materials [1993, jpn] **48-1993**
Watanabe, O.
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals [1994, eng] **48-5354**
Japanese expedition to Spitsbergen 1991-1992 [1993, eng] **48-1857**
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992 [1993, eng] **48-1861**
Proceedings [1994, eng] **48-5324**
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7 [1993, eng] **48-1862**
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images [1993, eng] **48-1300**
Watanabe, T.
Loading, transport, and removal of roadside snowbanks [1986, jpn] **48-260**
Snow avalanches and the settlement of Langtang village, Nepal Himalaya [1989, jpn] **48-3124**
Watanabe, Z.
Proposition of a net-like model of snow [1993, eng] **48-2830**
Waterhouse, R.W.
Movement of mortar baseplates on soil; mortar stability report 1(U) [1973, eng] **48-3488**
Waters, D.
Melt water chemistry and its impact on stream water quality [1993, eng] **48-986**
Waters, J.W.
Chlorine threat to stratospheric ozone [1993, eng] **48-2666**
Microwave sounding of antarctic stratospheric ozone content [1993, eng] **48-962**
Waters, N.M.
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion [1993, eng] **48-5053**
Watler, P.K.
Environmental impact of road salting—state of the art [1986, eng] **48-3119**
Watson, A.
Summer snow patches and climate in northeast Scotland, U.K. [1994, eng] **48-4373**
Watson, K.
Cryoprotection of yeast by alcohols during rapid freezing [1994, eng] **48-5055**
Watts, R.F.
Formulating automatic transmission fluids with improved low temperature fluidity [1991, eng] **48-3931**
Watts, R.G.
Freezing of brine solutions [1993, eng] **48-2343**
Waugh, D.W.
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking [1994, eng] **48-4594**
Way, J.
Imaging radar for Alaskan taiga ecosystem evaluation [1994, eng] **48-4832**
Way, J.B.
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR [1993, eng] **48-1719**
Wayne, W.J.
Relic permafrost landforms related to wind factors [1993, eng] **48-481**
Weaver, A.J.
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation [1994, eng] **48-2913**
Weaver, A.L.
Development of a temperature compensated gas lift cylinder [1994, eng] **48-3093**
Weaver, R.L.
Algorithm to improve satellite imagery of sea ice distribution [1989, eng] **48-2670**
Development of an inventory of ice core data [1978, eng] **48-2980**
Report on polar regions AVHRR workshop [1993, eng] **48-1293**
Webb, S.
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC) [1993, eng] **48-327**
Webb, T., III
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes [1993, eng] **48-2978**
Conceptual basis for understanding late-Quaternary climates [1993, eng] **48-2975**
Weber, J.R.
Bathymetric maps of the Arctic Basin sea floor, pt.2 [1987, eng] **48-3297**
Weber, L.J.
Study of fracture toughness and fatigue of freshwater ice [1994, eng] **48-3546**
Use of a low-powered laser to measure crack front development [1993, eng] **48-98**
Weber, M.
Meteorological data from weather stations on mountain glaciers [1986, ger] **48-612**
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983) [1986, ger] **48-611**
Webster, B.
Drilling options for the Cape Roberts Project [1992, eng] **48-2321**
Webster, C.R.
In situ measurement of polar stratospheric chemistry [1993, eng] **48-2580**
Spectrometer for aerial measurements of stratospheric chemicals [1994, eng] **48-4483**
Webster, J.G.
Trace-behavior in meltwater brines, Wright Valley, Antarctica [1994, eng] **48-4259**
Weeks, W.F.
Backscatter from ice growing on shallow lakes [1993, eng] **48-1727**
C-band backscatter model for lake ice in Alaska [1993, eng] **48-1714**
Structural characteristics of antarctic land-fast sea ice [1993, eng] **48-2385**
Weerasuriya, S.A.
Oil spreading in surface waters with an ice cover [1993, eng] **48-317**
Weertman, B.R.
Glaciological observations on Antarctic Peninsula [1992, eng] **48-2618**
Wefer, G.
Clay-mineral flux in the Fram Strait and Norwegian Sea [1994, eng] **48-3317**
Wegan, V.
Guidelines for type approval of waterproofing materials for concrete bridges [1994, eng] **48-4002**
Wehmiller, J.F.
Quaternary coasts of the United States: marine and lacustrine systems [1992, eng] **48-1923**
Weholt, R.L.
Insulated tunnel liner and rehabilitation system [1990, eng] **48-2165**
Wei, W.S.
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China [1992, eng] **48-4410**
Wei, X.X.
Microstructure damage in the frozen soil creep process [1993, chi] **48-1439**
Microstructure damage theory of creep in frozen soil [1993, eng] **48-5229**
Study on creep of frozen soil by damage mechanics [1993, chi] **48-1438**
Wei, Y.C.
Motion of non-basal dislocations in ice crystals [1994, eng] **48-2749**
Wei, Z.F.
Frost penetration and heave in subgrades under channel linings [1993, chi] **48-4500**
Frost penetration and heave under canals with sloping sides [1993, eng] **48-5207**
Weidemann, H.
Hydrographic research in a Greenland fjord, 1959 [1990, ger] **48-799**
Weidner, G.A.
Antarctic automatic weather station data for the calendar year 1991 [1993, eng] **48-1662**
Antarctic automatic weather station data for the calendar year 1992 [1994, eng] **48-4131**
Weigand, B.
Liquid solidification in forced flows in parallel plate channels [1993, eng] **48-861**
Weiler, C.S.
Ultraviolet radiation in Antarctica: measurements and biological effects [1994, eng] **48-4379**

AUTHOR INDEX

Wein, R.W.
Post fire tree establishment at the arctic treeline [1993, eng] **48-2764**
Weingartner, E.
Analysis of accreted drop sizes and mass on rimed snow crystals [1994, eng] **48-5130**
Weingartner, T.J.
Physical oceanography of the northeast Chukchi Sea [1993, eng] **48-794**
Weinheimer, A.J.
Stratospheric NOy measurements on the NASA DC-8 during AASE II [1993, eng] **48-2588**
Weir, P.
Snow profile computer drafting package [1994, eng] **48-4118**
Weir, R.J.
Freezing stress tolerance of hardy and tender families of loblolly pine [1993, eng] **48-1883**
Weisend, N.A., Jr.
De-icer; inflatable tubes [1991, eng] **48-2248**
Electro-repulsive separation system for deicing [1989, eng] **48-1875**
Weiss, J.
Failure of fresh-water granular ice under multiaxial compressive loading [1994, eng] **48-5588**
Weiss, L.S.
Molecular aspects of frost injury in herbaceous plants [1993, eng] **48-1253**
Weissenberger, J.
Life cycle of a calanoid copepod in the Weddell Sea [1993, eng] **48-594**
Welburn, R.W.
Reinforcing and prestressing steels for cryogenic applications [1982, eng] **48-5396**
Welch, E.B.
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington [1993, eng] **48-3556**
Welch, R.
Report on polar regions AVHRR workshop [1993, eng] **48-1293**
Welker, J.M.
Plant physiological responses to polar desert climate [1993, eng] **48-1385**
Weller, G.
Global change and its implications for Alaska [1992, eng] **48-2031**
Welsh, J.P.
Scene generation for smart weapons operability enhancement [1993, eng] **48-690**
Welte, D.
Ice certification of the Dornier 328 regional airliner [1991, eng] **48-3693**
Wen, J.
Air pollution and the air purity conditions in Wudaoliang region [1992, chi] **48-1486**
Wen, T.
Environmental measurements in the Beaufort Sea, spring 1991 [1992, eng] **48-4741**
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988 [1991, eng] **48-4733**
Wendl, F.
System for artificially triggering snow avalanches from helicopter [1993, eng] **48-4435**
Wendler, G.
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime [1993, eng] **48-193**
On the effects of sastrugi on snow albedo [1990, eng] **48-4671**
Weng, B.L.
Geographic boundary of permafrost in the northeast of China [1993, chi] **48-4488**
Weppernig, R.
Ice Station Weddell (ISW) tracer-oceanography program [1992, eng] **48-3781**
Werner, A.
Holocene moraine chronology on Spitsbergen [1993, eng] **48-3800**
Wessel, D.A.
Modelling evaporation from wetland tundra [1994, eng] **48-4650**
Wessels, E.
Cold environment tests of oil skimmer [1993, eng] **48-162**
Report of the IAHR Working Group on Ice Forces on Structures [1992, eng] **48-1561**
West, R.G.
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene [1993, eng] **48-4287**
West, W.
Scene generation for smart weapons operability enhancement [1993, eng] **48-690**
Weston, K.
Interaction between an ice sheet and its atmospheric boundary layer [1993, eng] **48-3586**
Weydahl, D.J.
Detecting natural winter-related features using ERS-1 SAR images [1994, eng] **48-3481**
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images [1993, eng] **48-1721**
Weyrick, P.B.
Development of an airborne millimeter-wave FM-CW radar for mapping river ice [1993, eng] **48-2816**
Kinematic model of river ice motion during dynamic breakup [1993, eng] **48-1621**
Whalley, W.B.
Ice exposures in rock glaciers [1994, eng] **48-5179**
Whatley, R.C.
Quaternary paleoceanography of the Arctic Ocean [1994, eng] **48-5640**
What's new in deicing
What's new in deicing [1994, eng] **48-4257**
Wheatley, R.E.
Freezing as a means of preserving samples in soil respiration studies [1989, eng] **48-3414**
Whillans, I.M.
Controls on changes in the West Antarctic ice sheet [1993, eng] **48-4180**
Development of fabric in ice [1994, eng] **48-3251**
Glaciology and Global Positioning System at upstream B and from CASERTZ [1992, eng] **48-2621**
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery [1993, eng] **48-3578**
New and improved determinations of velocity of Ice Streams B and C, West Antarctica [1993, eng] **48-3574**
Patterns of calculated basal drag on Ice Streams B and C, Antarctica [1993, eng] **48-3569**
Velocity pattern in a transect across Ice Stream B, Antarctica [1993, eng] **48-3582**
White, D.M., III
Single stage snowthrower [1991, eng] **48-2225**
White, J.D.
Role of surface melting in ice skating [1992, eng] **48-598**
White, J.W.
Autonomous rapid thermal ice penetrating method and system [1991, eng] **48-2249**
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation [1993, eng] **48-1248**
White, K.D.
Current issues in river ice forecasting [1993, eng] **48-686**
Ice jam data collection [1994, eng] **48-5406**
Stage-frequency of highly variable ice jam events [1994, eng] **48-3359**
White, R.
Ice-pavement bond prevention: surface modification [1992, eng] **48-4897**
White, T.D.
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis [1994, eng] **48-3369**
White, T.L.
Frost action alteration of pipeline-adjacent soil [1993, eng] **48-482**
Whitehead, R.F.
McMurdo Ice Shelf meltwater chemistry [1994, eng] **48-3038**
Whitehouse, I.E.
Talus surface properties in the New Zealand Alps [1983, eng] **48-3341**
Whitehouse, M.J.
Seabirds and fur seals near the Antarctic Peninsula in winter 1986 [1994, eng] **48-5153**
Whiteley, J.D.
Reinforcing and prestressing steels for cryogenic applications [1982, eng] **48-5396**
Whiting, G.J.
CO_2 exchange in the Hudson Bay lowlands [1994, eng] **48-4608**
Whitlock, F.
Soldiers on skis: a pictorial memoir of the 10th Mountain Division [1992, eng] **48-1929**
Whitlow, S.
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980 [1994, eng] **48-5156**
Whitlow, S.I.
Greenland ice core "signal" characteristics: an expanded view of climatic change [1993, eng] **48-192**
Whitman, J.W.E.
Simulation of ice applications requirements and ground segment performance [1993, eng] **48-2500**
Whitmire, T.W.
Heating aircraft deicer fluid [1987, eng] **48-4418**
Whittington, R.J.
Ice-rafted diamictons in East Greenland fiords [1994, eng] **48-3814**
Whitworth, R.W.
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects [1994, eng] **48-5147**
Studies of the nature of the ordering transformation in ice Ih [1991, eng] **48-945**
Whritner, R.H.
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery [1994, eng] **48-4384**
Whung, P.Y.
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D) [1994, eng] **48-4597**
Wickens, R.H.
Wing-propeller performance degradation [1991, eng] **48-3690**
Wiedemann, G.
Strength, deformation and thermal strains of concrete at cryogenic conditions [1982, eng] **48-5395**
Wiegner, M.
Modelling cirrus optical properties [1993, eng] **48-2990**
Wielgolaski, F.E.
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites [1990, eng] **48-83**
Wiesinger, T.
Auger for snowpack water equivalent determination [1991, ger] **48-3661**
Improved gauge for winter precipitation measurements [1993, eng] **48-2855**
Wiesmann, A.
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data [1994, eng] **48-3469**
Wiesner, H.H.
Belt-type caterpillar for track-laying vehicles and snowmobiles [1991, eng] **48-2226**
Wight, D.R.
Cell-free and whole cell ice nucleators and process for their production [1993, eng] **48-1282**
Wigington, P.J., Jr.
Episodic acidification of freshwater systems in Canada [1994, eng] **48-3621**
Wilk, T.
Computer simulation of wind and snow around buildings [1994, eng] **48-3881**
Wijeweera, H.
Creep behavior of saline fine-grained frozen soil [1993, eng] **48-1529**
Influence of salinity on the compressive strength behavior of frozen soils [1993, eng] **48-483**
Temperature-independent relationships for frozen soils: discussion [1993, eng] **48-1530**
Wijeysundera, N.E.
Thermal conductivity of pipe insulations during condensation [1993, eng] **48-872**
Wiklund, M.
Correlation of studded tire use and road safety [1993, swe] **48-4022**
Wilcox, B.
Valdez initiates sludge disposal operations [1993, eng] **48-1886**
Wilen, L.
Physics of liquid water in frozen powders and soils [1993, eng] **48-5209**
Wiles, G.C.
Debris-slide-initiated Alaskan flood reconstruction [1992, eng] **48-2332**
Holocene glacier-climate relations in Alaskan mountains [1994, eng] **48-3627**
Wilhelmsen, G.
Winning the ice war [1990, eng] **48-1922**
Wiljanen, H.
Weather model for indoor thermal calculations [1994, eng] **48-3845**
Wilkinson, J.H.
Snowdrift modeling in the CRREL wind tunnel [1993, eng] **48-2938**
Wilkman, G.
Methods to map ice conditions, to measure ice properties and to quantify ice features [1993, eng] **48-177**
Rudder/propulsion device arrangements on icegoing vessels [1993, eng] **48-102**
Wilks, D.S.
Atlas of snowfall and snow depth [1993, eng] **48-1108**
Measurement of the water equivalent of snow on the ground [1993, eng] **48-2933**
Williams, E.
Ice particle growth and cloud electrical structure [1994, eng] **48-4855**
Williams, E.T.
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica [1994, eng] **48-3918**
Williams, F.M.
Size effect in the flexural strength of ice [1994, eng] **48-3015**
Williams, H.E.F.
Acoustic scale modeling of arctic ice ridges [1993, eng] **48-3530**
Williams, J.A.
Classification of alpine vegetation using Landsat data [1994, eng] **48-4011**
Williams, K.L.
Sound scattering from arctic sea ice bottom surfaces [1993, eng] **48-2024**
Williams, K.M.
Diatomic evidence of Greenland ice sheet/ocean interactions [1993, eng] **48-1512**
Williams, M.W.
Groundwater contributions to the hydrochemistry of an alpine basin [1990, eng] **48-1599**
Hydrochemistry of a seasonally snow covered watershed [1992, eng] **48-3526**
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada [1993, eng] **48-2950**
Surface water geochemistry of a Sierra Nevada watershed [1993, eng] **48-2329**

Williams, P.J.
Frost action alteration of pipeline-adjacent soil [1993, eng] **48-482**
Williams, R.
Experiments and analysis of pipe freezing [1993, eng] **48-867**
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers [1994, eng] **48-3021**
Williams, R.S., Jr.
Airborne laser geodetic survey of Greenland glaciers [1993, eng] **48-1352**
Satellite Image Atlas of Glaciers [1978, eng] **48-2985**
Satellite image atlas of glaciers of the world: Europe [1993, eng] **48-4027**
Willieme, J.M.
Breaking capacity of SF6 circuit-breakers at low temperatures [1993, eng] **48-1828**
Willis, I.C.
Water balance of a Norwegian glacier, pt.1 [1991, eng] **48-3655**
Water balance of a Norwegian glacier, pt.2 [1991, eng] **48-3656**
Willis, R.D.
Krypton-81 dating in polar ice samples [1990, eng] **48-4906**
Willmott, A.J.
Greenland-Norwegian Sea ice-ocean thermodynamic model [1993, eng] **48-980**
Wilson, B.A.
Remote sensing of alpine vegetation in Yukon Territory [1992, eng] **48-1761**
Wilson, C.
Little Ice Age on Hudson Bay, 1814-1821 [1985, eng] **48-2723**
Wilson, D.G.
Behaviour of oil in freezing situations [1986, eng] **48-4170**
Wilson, D.J.
Moisture deposition from air flow through wall cavities [1993, eng] **48-871**
Wilson, J.D.
Radiometric derivation of antarctic ice sheet elevation [1993, eng] **48-1305**
Wilson, M.V.
Tundra seedbank ecology in a subalpine environment [1993, eng] **48-969**
Wilson, P.
Description of talus debris in Aghla Mountains, Ireland [1993, eng] **48-5050**
Study of Canadian applications for Thyssen-Waas ice-breaking bow [1990, eng] **48-3336**
Thickness and anisotropy of the ice-water interface [1993, eng] **48-1671**
Winberg, M.R.
Effect of soil freezing on particulate resuspension [1988, eng] **48-3919**
Winchester, J.W.
Aerosol silicon and associated elements in the arctic high and mid-troposphere [1993, eng] **48-3903**
Temporal variation in aerosol composition at Summit, Greenland, summer 1989 [1993, eng] **48-3915**
Wine, P.H.
Halogen and sulfur reactions relevant to polar chemistry [1993, eng] **48-3061**
Winebrenner, D.P.
SAR backscatter from sea ice [1993, eng] **48-4156**
Wingate, W.C.
Nonlinear dynamic response of a simple ice-structure interaction model [1993, eng] **48-2686**
Wingham, D.J.
Measuring ice sheet changes with the ERS-1 altimeter [1994, eng] **48-3436**
Winkler, P.
Seasonal aerosol chemistry at Dye 3, Greenland [1993, eng] **48-3889**
Winter, K.L.
Snow plow guards comprising pliant polymer [1990, eng] **48-2195**
Winter, S.
Condensed gases under winter conditions: a study for the rescue services [1992, swe] **48-4719**
Winther, J.G.
Landsat studies of antarctic snow surfaces [1993, eng] **48-1296**
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard [1993, eng] **48-632**
Short- and long-term variability of snow albedo [1993, eng] **48-1158**
Snow and glacier ice characteristics measured using Landsat TM data [1993, eng] **48-1778**
Winzer, W.
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique [1994, eng] **48-3440**
Wirth, M.
Two dimensional stratospheric aerosol distributions during EASOE [1994, eng] **48-5462**
Wiscombe, W.J.
Effects of sea ice cover on cirrus cloud IR detection [1994, eng] **48-3758**
Wisniewski, M.
Role of pit membrane structure in deep supercooling of xylem parenchyma [1993, eng] **48-1258**
Witmer, U.
Spatial differences of maximum snow cover depth in the Swiss Alps [1986, ger] **48-614**
Wittebolle, R.J.
Performance of a water retaining dyke on a discontinuous permafrost foundation [1994, eng] **48-3397**
Wofsy, S.C.
Factors influencing atmospheric composition over subarctic North America during summer [1994, eng] **48-4634**
Wohl, E.E.
Bedload movement controls in a subalpine stream [1994, eng] **48-3510**
Wohl, G.
Synthetic aperture radar imagery for operational ice analysis [1991, eng] **48-4737**
Wohlrath, W.
Ice certification of the Dornier 328 regional airliner [1991, eng] **48-3693**
Wojcik, M.J.
Spectra of isotopic ice mixtures [1993, eng] **48-213**
Wolf, D.
Role of lithosphere in glacial isostasy [1993, eng] **48-1760**
Wolfe, D.E.
1992 Arctic Leads Experiment: an overview of the meteorology [1993, eng] **48-2126**
Wolff, E.
Vacuum freeze drying of vial-enclosed liquids [1993, eng] **48-2344**
Wolff, E.W.
Local deposition of heavy metal emissions from point sources in Antarctica [1993, eng] **48-1232**
Wollenburg, I.
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material [1993, ger] **48-541**
Woo, M.K.
Active layer thaw calculations using simplified thermal and hydrological parameters [1993, eng] **48-487**
Adaption to permafrost in the Canadian north: present and future [1992, eng] **48-2033**
Decay of a High Arctic lake-ice cover: observations and modelling [1994, eng] **48-5165**
Effects of terrain disturbance on arctic slope hydrology [1993, eng] **48-484**
Impact of climate change on Canadian, transportation [1993, eng] **48-599**
Infiltration of meltwater into frozen soils in a continuous permafrost environment [1993, eng] **48-433**
Problems of studying water balance in small high arctic basins [1988, eng] **48-2335**
Role of snow in alpine permafrost hydrology [1993, eng] **48-490**
Wood, S.E.
Modeling the Martian seasonal CO2 cycle, pt.1 [1992, eng] **48-987**
Wood, T.B.
Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture [1994, eng] **48-3353**
Woodham, D.
Ice-detection system evaluation [1991, eng] **48-4896**
Woodhams, R.T.
Stabilized recycled plastics as high performance asphalt binder modifiers [1993, eng] **48-5075**
Woodley, W.L.
Effects of cloud seeding in West Texas: additional results and new insights [1993, eng] **48-2370**
Woodmencey, J.
Avalanches in the Teton Range, summer 1993 [1993, eng] **48-1782**
Woodward, A.
Changes in North American subalpine tree distribution [1994, eng] **48-4944**
Woodward, A.A., Jr.
Thermal protectiveness of electrically heated clothing and boots [1993, eng] **48-4753**
Woodworth-Lynas, C.M.T.
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice [1994, eng] **48-5040**
Wooldridge, P.J.
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications [1993, eng] **48-2315**
Simulation of polar stratospheric cloud chemical reactions [1993, eng] **48-967**
Woolfe, K.J.
Permo-Carboniferous glaciation in the Transantarctic Mountains [1994, eng] **48-3040**
Woolhiser, H.G.
Snow plow attachment device [1990, eng] **48-2259**
Worcester, P.F.
Tomography of Greenland Sea temperature field [1993, eng] **48-2211**
Workshop on Cryospheric Data Rescue and Access, Niagara-on-the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992
Snow watch '92 [1993, eng] **48-1787**
World Meteorological Organization. Secretariat
Summary report on national sea-ice forecasting techniques [1989, eng] **48-2502**
Wouters, B.
Dynamic loads on transmission line structures due to galloping conductors [1994, eng] **48-3809**
Wright, B.
Pack ice driving forces inferred from MOLIKPAQ ice loads [1992, eng] **48-1556**
Size effect on pack ice driving forces [1992, eng] **48-1557**
Wright, B.D.
Review of ice forces and failure modes on the Molikpaq [1994, eng] **48-5620**
Wright, C.W.
Aircraft control/display system for ice sheet mapping [1992, eng] **48-3790**
Wright, D.G.
Transport of freshwater into the deep ocean by the conveyor [1993, eng] **48-4189**
Younger Dryas experiments [1993, eng] **48-4198**
Wright, E.A.
CRREL's first 25 years, 1961-1986 [1986, eng] **48-2070**
Wright, H.E., Jr.
Global climates since the last glacial maximum [1993, eng] **48-2974**
Wright, R.F.
Experimental Norwegian alpine watershed acidification [1994, eng] **48-3622**
Wright, W.A.
Applications of passive microwave satellite data for arctic sea ice studies [1991, eng] **48-4729**
Wright, W.B.
Advancements in the LEWICE Ice Accretion Model [1993, eng] **48-4886**
Wu, C.D.
Air temperature in China and the arctic sea ice extent [1993, chi] **48-4586**
Wu, C.Z.
Heat transfer prediction of two-phase closed thermosyphon with freezing [1993, eng] **48-891**
Wu, H.T.
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery [1984, eng] **48-3075**
Wu, J.H.
Orthogonal regression study of frost heave in saline soil [1993, chi] **48-1450**
Wu, J.M.
Application of thermalpile to culvert engineering in permafrost region [1993, eng] **48-375**
Wu, Q.B.
Effect of lake proximity on permafrost formation [1993, eng] **48-485**
Wu, Q.J.
Mathematical analysis of frozen shaft wall deformation [1993, eng] **48-478**
Wu, X.
Identification of sea ice using NOAA satellite data [1993, eng] **48-1064**
Wu, X.Q.
Information extraction from ERS-1 SAR data in antarctic research [1994, eng] **48-3475**
Wu, X.R.
Cyclonic atmospheric response to sea ice variations [1993, eng] **48-959**
Wu, Z.
Creep deflection of ice plate under variable loading [1994, eng] **48-3016**
Seasonal variations of surface layer wetland hydrocarbons [1994, eng] **48-4614**
Wu, Z.G.
Edge diffraction in the vicinity of the tip of a composite wedge [1993, eng] **48-2108**
Wu, Z.Q.
Nonlinear primary and secondary creep deflection of ice plate under constant loading [1993, eng] **48-99**
Wu, Z.W.
Analogic conditions of simulation test of frozen soil's creep [1993, chi] **48-1443**
Change of pore ice and ice phase stress during the creep process of frozen soil [1993, chi] **48-1440**
Characteristic of shear creep of frozen fine sand [1993, chi] **48-4579**
Climate change influence on highway stability in a permafrost zone [1993, eng] **48-351**
Creep and creep strength of frozen soil [1993, chi] **48-1441**
Dynamic strain characteristics of saturated frozen silt [1994, eng] **48-3394**
Elastoplastic calculation of bottom heave in artificially frozen shaft [1992, eng] **48-1400**
Experimental research on deformation in model of an artificially frozen wall [1993, eng] **48-486**
Experimental research on deformation in model of artificially frozen wall [1992, chi] **48-1416**
Experimental study of shear creep of frozen fine sand [1992, eng] **48-1401**
Feasibility of conveying water by a canal in winter [1993, chi] **48-1451**
Laser detection of creep in frozen soil [1993, chi] **48-1456**

Numerical analysis of temperature and stress on the canal subsoil during freezing [1993, chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing [1993, eng] 48-5262
Simulation on thaw consolidations of saturated frozen soil [1994, eng] 48-3396
Strength and yield criteria of frozen soil [1993, eng] 48-431
Strength and yield criteria of frozen soil [1992, chi] 48-1417
Strength characteristic of frozen sandy soil [1993, chi] 48-1445
Uniaxial stress relaxation of frozen loess [1992, chi] 48-1415
Uniaxial stress relaxation of frozen loess [1993, eng] 48-5250

Wumkes, M.A.
Development of the U.S. deep coring ice drill [1994, eng] 48-5329
Operational considerations of the U.S. deep coring ice drill [1994, eng] 48-5330

Wunderle, S.
Snow cover development on Potter Peninsula [1994, eng] 48-3482

Wüster, J.
Seismological observatory at Georg von Neumayer Station [1993, eng] 48-4153

Wyant, J.G.
Alaska North Slope oil-field restoration research strategy [1992, eng] 48-4893

Xen, Z.Y.
Instantaneous-state deformation and strength behaviour of frozen soil [1993, eng] 48-502

Xia, Z.J.
Active layer thaw calculations using simplified thermal and hydrological parameters [1993, eng] 48-487

Xia, Z.Y.
Applications of data base technology in frozen soil research [1993, eng] 48-5251
Applications of data base technology in frozen soil researches [1993, chi] 48-4397
Frozen ground database system for the Qinghai-Xizang Plateau [1992, chi] 48-1489
Ground penetrating radar for sub-road permafrost detection [1993, eng] 48-494
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway [1993, chi] 48-4393

Xian, C.D.
Characteristic of shear creep of frozen fine sand [1993, chi] 48-4579
Experimental study of shear creep of frozen fine sand [1992, eng] 48-1401

Xiao, J.
Finite element modelling of damage processes in ice-structure interaction [1991, eng] 48-802
Interplay between damage and fracture in ice-structure interaction [1992, eng] 48-1555
Pressure melting and friction in ice-structure interaction [1992, eng] 48-1537

Xiao, S.Q.
Amelioration of ice layer effects on spectroscopic detector performance [1993, eng] 48-1012

Xie, S.M.
Antarctic sea ice and ENSO event [1993, eng] 48-4842
Antarctic sea ice variations [1993, chi] 48-2029

Xie, Y.B.
Seismic-acoustic sensing of sea ice wave mechanical properties [1994, eng] 48-4054

Xie, Y.L.
Noncritical behavior of density fluctuations in supercooled water [1993, eng] 48-1020

Xie, Y.Q.
Frost heave in compacted earth dams [1993, eng] 48-5252

Xie, Y.Y.
Environmental events on King George Island since the last glaciation [1992, eng] 48-80

Xie, Z.
Constitutive relation for sea ice based on thermodynamics and damage mechanics [1993, eng] 48-4322

Xiong, H.G.
Denudation rate by gelifraction in Tian Shan [1992, chi] 48-2013
Frost physical weathering at the Great Wall Station [1992, eng] 48-79
Frost weathering at the Great Wall Station [1992, eng] 48-77
Gelifraction of periglacial mountain soils [1993, eng] 48-423
Periglacial mass movement in the head area of the Urumqi River [1993, eng] 48-5202
Periglacial mass movement in the head area of Urumqi River [1993, chi] 48-4487
Permafrost structure, King George I. [1993, eng] 48-1515
Sorted circles in an empty cirque at the head of the Urumqi River [1993, eng] 48-5253

Xiong, K.
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica [1993, eng] 48-2100

Xu, B.M.
Frost heave forces and pile stability [1993, eng] 48-427
Permafrost development in river basins [1993, eng] 48-488
Study and development of the techniques against frost damage of hydraulic structures [1993, eng] 48-5254
Thaw-consolidation of unsaturated frozen soil [1993, eng] 48-5257
Traffic and transport on ice cover in Nenjiang River [1992, chi] 48-2018

Xu, D.M.
Prediction of track performance on deep snowpack [1993, eng] 48-758
Wheeled vehicle mobility evaluation in deep snowpack [1993, eng] 48-1167

Xu, D.Z.
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway [1993, eng] 48-368

Xu, H.
Monitoring snow area and depth with integration of remote sensing and GIS [1993, eng] 48-2613

Xu, J.G.
Reservoir damage from frost heave [1993, eng] 48-448

Xu, Q.Q.
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology [1993, chi] 48-4572

Xu, X.Y.
Long-term shear strength at frozen/unfrozen transition zone [1992, chi] 48-1407
Long-term shear strength of frost-thaw transit zone [1993, eng] 48-5203
Long-term shear strength of frost-thaw transition zone [1993, chi] 48-4492

Xu, X.Z.
Analysis of the second phase transition of sodium chloride solution in freezing soil [1993, eng] 48-497
Changing characteristics of hydraulic diffusivity of unsaturated soil [1992, chi] 48-1412
Deaerator use in soil tests [1993, chi] 48-1458
Essential types of heave development for soil freezing [1993, chi] 48-1431
Feasibility of conveying water by a canal in winter [1993, chi] 48-1451
Heat and mass transfer in frozen saline kaolin [1992, chi] 48-2009
Heat-mass transfer and deformation in frozen saline kaolin [1992, chi] 48-1408
Overburden pressure and ice formation in clay [1993, chi] 48-1433
Primary study on composition of methane hydrate [1993, eng] 48-373
Primary study on composition of methane hydrate [1992, chi] 48-1421
Primary study on interface conditions of ice saturated clay [1993, eng] 48-489
Primary study on interface conditions of ice-saturated clay [1992, chi] 48-1409
Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost [1993, chi] 48-4569
Second order phase change in saline freezing soil [1992, chi] 48-1411
Unfrozen water content and freeze-thaw in saline soil [1993, chi] 48-1434
Unfrozen water content in multi-crystal ice [1993, eng] 48-5255
Unfrozen water content in polycrystal ice [1993, chi] 48-1435
Water and solute migration of freezing soils in closed system under temperature gradients [1992, eng] 48-1403

Xu, Z.H.
Frost resistant bridge piles in a waterlogged area [1993, chi] 48-4505
Frost resistant bridge piles in a waterlogged area [1993, eng] 48-5216

Xue, Z.H.
Antarctic sea ice and ENSO event [1993, eng] 48-4842

Yagi, K.
Methane emissions from Canadian peatlands [1994, eng] 48-4994

Yagi, T.
Case study of snowstorm gusts and blowing/drifting snow [1993, eng] 48-2842

Yamada, H.
Anti-skid spike pins of hard rubber for shoes or vehicle tyres [1992, eng] 48-4425

Yamada, K.
Estimation of monthly precipitation by geographical factors and meteorological variables [1990, eng] 48-1588

Yamada, M.
Buckling of geodesic domes under snow loads. Part 8 [1993, jpn] 48-1999
Freezing of water flow in a horizontal cooled tube [1993, eng] 48-865
Melting heat transfer along a horizontal heated tube immersed in liquid ice [1993, eng] 48-1105
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall [1993, eng] 48-2460
Some topics on melting heat transfer problems [1993, eng] 48-858

Yamada, T.
Glacier lakes and outburst floods in the Nepal Himalaya [1993, eng] 48-2796
Metamorphism in a perennial snow patch [1993, eng] 48-2838
Precipitation environment in the Langtang Valley, Nepal Himalayas [1993, eng] 48-2786
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas [1993, eng] 48-2792

Yamada, Y.
Changes and future prospects for sidewalk snow removal equipment [1988, jpn] 48-557
Density of newly fallen snow along the coast of the Japan Sea [1993, jpn] 48-4233
Estimation method of newly fallen snow depth [1993, jpn] 48-4234

Yamagami, M.
Neutron diffraction of hydration in supercooled solutions [1994, eng] 48-3000

Yamagata, T.
Emergency readiness in heavy snow region. Part 1 [1993, jpn] 48-1978
Emergency readiness in heavy snow region. Part 2 [1993, jpn] 48-1979

Yamaguchi, H.
Fundamental study on removal of snow by sliding from the roof of membrane structures [1993, jpn] 48-1994
Numerical simulation of pack ice movement using the momentum conservation method [1993, jpn] 48-1052
Pack ice movement simulation using a distributed mass/discrete floe model [1993, eng] 48-171
Strength of river ice in the high snow accumulation region of Hokkaido, Japan [1994, eng] 48-5581

Yamaguchi, K.
Deterministic multi-zone ice accretion modeling [1991, eng] 48-4872
Pneumatic tire having expanded outer tread rubber layer [1993, eng] 48-4365

Yamaguchi, T.
Neutron diffraction of hydration in supercooled solutions [1994, eng] 48-3000

Yamaguchi, Y.
SAR detection of snow-covered objects [1994, eng] 48-5135

Yamakoshi, H.
Composite materials for arctic use [1993, jpn] 48-1041

Yamamoto, A.
Buckling of geodesic domes under snow loads. Part 8 [1993, jpn] 48-1999

Yamamoto, H.
Current status of snow removal equipment [1988, jpn] 48-555
Draft for a guide on safety measures for sidewalk snow removal equipment [1989, jpn] 48-677

Yamamoto, T.
Effect of amorphous ice on comet thermal history [1993, eng] 48-753

Yamamura, E.
Regional implementation and industrial use of snow [1986, jpn] 48-30

Yamanaka, K.
Study on ice management by the air bubble method [1993, jpn] 48-1045

Yamanaka, Y.
Snowstorms and countermeasures in 1985 [1986, jpn] 48-14

Yamanashi, M.
Snowdrifts and the differential settlement of buildings (1) [1993, jpn] 48-2000

Yamane, S.
Properties of concrete at very low temperature [1982, eng] 48-5394

Yamanouchi, T.
Glacier-generated ground motions at Bomi, southeastern Tibet [1993, eng] 48-2754

Yamaoka, M.
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines [1993, eng] 48-850

Yamashita, T.
Experimental study on the control of ice movement with a new design of ice boom [1993, eng] 48-4352
Experimental study on the overtopping of breakwaters by ice floes and waves [1993, eng] 48-156
Total ice forces on multi-legged offshore structures [1993, eng] 48-4318

Yamauchi, H.
Experience of inland travel of JARE-33 [1993, jpn] 48-2440

Yamauchi, T.
Movement of ice floes near a river mouth on the Okhotsk Sea coast [1993, jpn] 48-1049

Yamazaki, M.
Field study of ice control structure on river rapids [1994, eng] 48-5551

Yamazaki, T.
One-dimensional model of the evolution of snow-cover characteristics [1993, eng] 48-2822
Snow melting measures in Asahikawa City [1988, jpn] 48-566

Yan, D.C.
Effect of Bohai ice crushing strength on vertical structures [1993, chi] **48-2096**

Yan, F.H.
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing [1993, chi] **48-4590**

Yan, J.F.
Quaternary glaciations in the Altai Mountains of China [1992, chi] **48-2014**

Yan, X.Q.
Stress theory of low-temperature steel brittleness [1994, eng] **48-5158**

Yang, C.H.
Freezing of a water-saturated inclined packed bed of beads [1993, eng] **48-602**
Solidification of a binary mixture saturating an inclined bed of packed spheres [1993, eng] **48-2455**

Yang, C.Q.
Action of ice push force against the dam and slope protection in reservoirs [1994, eng] **48-5548**

Yang, D.
"True snowfall": an evaluation of the double fence intercomparison reference gauge [1993, eng] **48-2934**

Yang, D.G.
Degradation and protection of grassland on the Qinghai-Tibet Plateau [1992, eng] **48-4411**

Yang, D.Q.
Role of snow in alpine permafrost hydrology [1993, eng] **48-490**
Snow research at Lanzhou Institute of Glaciology and Geocryology [1993, eng] **48-1800**

Yang, D.S.C.
Role of ice-binding proteins in frost tolerance of winter rye [1993, eng] **48-1254**

Yang, H.R.
Thaw settlement of railway foundations in permafrost swamp regions [1993, eng] **48-5256**

Yang, L.F.
Ice jam breakup flood discharge on the Yellow River [1994, eng] **48-5542**
Thaw-consolidation of unsaturated frozen soil [1993, eng] **48-5257**

Yang, L.Y.
Air pollution on the Qinghai-Xizang Plateau [1992, chi] **48-1482**
Climate change and human influences on Qinghai-Xizang Plateau [1992, chi] **48-1487**
Selection of an air pollution monitoring site [1992, chi] **48-1483**

Yang, M.Q.
Origin and formation of the valley heads moraine system, central New York [1993, eng] **48-3532**

Yang, S.
Role of clouds and ozone on spectral ultraviolet-B radiation [1994, eng] **48-4385**

Yang, T.C.
Low frequency arctic under-ice reverberation, pt.1 [1993, eng] **48-75**
Low frequency arctic under-ice reverberation, pt.2 [1993, eng] **48-76**
Low-frequency Arctic under-ice reverberation pt.3 [1993, eng] **48-43**

Yang, X.Q.
Impact of ice on hydraulic structures and hydropower stations and its prevention [1994, eng] **48-5553**
Mathematical model for oil slick transport and mixing in rivers [1993, eng] **48-724**

Yang, Z.H.
Formation and calculation of cold region runoff in the Qilian mountains [1990, eng] **48-1597**
Permafrost hydrological processes in Binggou basin of Qilian Mountains [1993, eng] **48-491**

Yang, Z.N.
Permafrost hydrological processes in Binggou basin of Qilian Mountains [1993, eng] **48-491**
Role of snow in alpine permafrost hydrology [1993, eng] **48-490**

Yankielun, N.E.
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar [1993, eng] **48-3492**
Development of an airborne millimeter-wave FM-CW radar for mapping river ice [1993, eng] **48-2816**
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement [1993, eng] **48-2084**
Observations on machine-made snow as a millimeter-wave obscurant [1993, eng] **48-3031**
Radar backscatter measurements over Weddell Sea pack ice [1992, eng] **48-3774**
Sea-ice investigations on *Nathaniel B. Palmer* Cruise 92-2 [1992, eng] **48-3770**

Yano, K.
Field investigation of spray icing on offshore experimental structure [1990, jpn] **48-4668**

Yano, T.
Ice structure size in frozen agar gels analyzed by mercury porosimetry [1993, eng] **48-3624**

Yao, C.Q.
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau [1993, chi] **48-4502**
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau [1993, eng] **48-5261**
Maximum thaw depth in permafrost under black pavement [1993, chi] **48-4503**
Maximum thaw depth in permafrost under black pavement [1993, eng] **48-5201**

Yao, M.
Stress theory of low-temperature steel brittleness [1994, eng] **48-5158**

Yao, T.D.
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region [1993, chi] **48-4574**
Spatial variations of chemical species in Guliya ice cap [1993, chi] **48-4575**

Yao, Z.
Permafrost structure, King George I. [1993, eng] **48-1515**

Yapa, P.D.
Mathematical model for oil slick transport and mixing in rivers [1993, eng] **48-724**
Modeling oil spills in a river-lake system [1994, eng] **48-3619**
Oil spreading in surface waters with an ice cover [1993, eng] **48-317**

Yaramanci, U.
Tidal gravity effects on the Ekström ice shelf [1993, eng] **48-231**

Yarie, J.
Effects of saline soils on Tanana River floodplain revegetation [1993, eng] **48-650**
Forest management practices on the Tanana River floodplain [1993, eng] **48-649**
Soil nitrification in forest floodplain ecosystems, Tanana River [1993, eng] **48-646**
Tanana River floodplain soil chemistry and forest succession [1993, eng] **48-642**

Yarmak, E., Jr.
Using passive refrigeration to stabilize foundations in cold climates [1993, eng] **48-2214**

Yarvinen, E.
Influence of electric field on the properties of body-ice contact [1993, eng] **48-4320**

Yashima, N.
Earthquake response of offshore structures in sea ice (part 4) [1990, jpn] **48-4669**

Yashiro, M.
Installation of geothermal heat pipes [1988, jpn] **48-567**

Yasui, T.
Engine mounting arrangement and drive mechanism for small snowmobiles [1991, eng] **48-2223**
Frame and body construction for small snowmobile [1990, eng] **48-2189**
Frame construction for small snowmobile [1990, eng] **48-2188**

Yasunari, T.
Katabatic wind variability over East Antarctica [1993, eng] **48-202**
Uncertainties in the global warming issue and the cryosphere [1992, jpn] **48-3161**

Yates, J.
Transfer of offshore technology from the Arctic to the Antarctic [1993, eng] **48-4358**

Ye, S.G.
Damage and protection of earth dam slopes in cold region [1994, eng] **48-3961**

Yeatman, E.M.
Detection of oil under ice by ultrasound using multiple element phased arrays [1986, eng] **48-4176**

Yelle, R.V.
Triton's surface-atmosphere energy balance [1992, eng] **48-1605**

Yen, Y.C.
Estimation and measurements of transport properties of frozen soils [1993, eng] **48-492**
Hygroscopic aerosol growth in a static cold environment [1991, eng] **48-1841**
Natural convection heat transfer in water near its density maximum [1993, eng] **48-895**
On the temperature distribution near a cold surface [1993, eng] **48-2537**

Yi, C.L.
Quaternary glaciations in the Altai Mountains of China [1992, chi] **48-2014**

Yi, M.K.
Elastic-plastic analysis of narrow truncated floating ice wedge [1993, eng] **48-4333**

Yin, H.B.
Disaggregation models of seasonal streamflow forecasts [1993, eng] **48-2955**

Yin, X.W.
Forest soil temperature prediction from air temperature records [1993, eng] **48-4810**

Yiou, P.
Nonlinear paleoclimatic variability from Quaternary records [1993, eng] **48-4204**
Quaternary records of climatic variability [1994, eng] **48-5305**

Yip, T.C.
Estimating icing amounts caused by freezing precipitation in Canada [1993, eng] **48-821**

Yogendrakumar, M.
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986 [1994, eng] **48-5615**

Yoh, M.
Methane emissions from Canadian peatlands [1994, eng] **48-4994**

Yokohama Rubber Company Ltd
Pneumatic tyre [1993, eng] **48-4438**
Pneumatic tyre to improve rigidity of blocks [1993, eng] **48-4431**
Pneumatic tyre which is good as snow tyre in initial phase as summer tyre with half wear [1993, eng] **48-4439**

Yokomichi, M.
Forecasting snowmelt volume from remote sensing data [1993, eng] **48-1681**

Yokota, T.
Satellite spectrometer for stratospheric ozone monitoring [1993, eng] **48-1710**

Yokoyama, K.
Improved gauge for winter precipitation measurements [1993, eng] **48-2855**

Yong, R.N.
Prediction of track performance on deep snowpack [1993, eng] **48-758**
Snowpack compression using element analysis [1993, eng] **48-1223**
Wheeled vehicle mobility evaluation in deep snowpack [1993, eng] **48-1167**

Yoon, J.Y.
Laboratory study of flow in ice-covered, dune-bed channels [1992, eng] **48-1543**
Numerical analysis of flows in channels with sand dunes and ice covers [1994, eng] **48-3548**
Numerical model of flow in channels with sand-dune beds and ice covers [1993, eng] **48-1137**

Yoshida, K.
Withstand voltage and flashover performance of iced insulators [1993, eng] **48-847**

Yoshida, N.
Electric-heater roof snow melter [1993, jpn] **48-1986**
Roof snow sliding system with electric heater [1993, jpn] **48-1987**

Yoshida, T.
Application of in-situ surface recycling methods in cold areas [1993, eng] **48-5072**

Yoshida, Y.
Cenozoic glacial history of Antarctica—A correlative synthesis [1992, eng] **48-921**

Yoshimura, Y.
Biotic acceleration of melting in Yala Glacier [1993, eng] **48-2795**

Yoshino, F.
Examples of radar observations of snowfall in Hokuriku [1989, jpn] **48-667**
Radar detection of thundercloud ice particle distribution [1993, eng] **48-951**

Yoshino, M.
Performance evaluation of anti-icing pavement [1993, eng] **48-1196**

Yoshioka, S.
Excipient stabilization of protein freeze-drying [1994, eng] **48-4657**

Yoshizawa, M.
Wind tunnel test for snowbreak forests along a highway [1993, jpn] **48-1972**

Yoshizumi, T.
Electric-heater roof snow melter [1993, jpn] **48-1986**

Youd, D.S.
Anti-icing valve [1989, eng] **48-4363**

Young, B.
Three approaches to winter traction testing using instrumented vehicles [1994, eng] **48-3105**
Winter traction testing using three different instrumented vehicles [1993, eng] **48-757**

Young, C.W.
Air-deliverable, ice-penetrating sonobuoy [1991, eng] **48-3664**

Young, E.J.
Adhesion of fresh and saline ice to bare and coated steel surfaces [1994, eng] **48-3022**

Young, G.J.
Ablation on debris covered glaciers in Punjab [1993, eng] **48-2793**
Glaciohydrological features of the Karakoram Himalaya [1993, eng] **48-2791**
Snow and glacier hydrology [1993, eng] **48-2766**
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme [1993, eng] **48-2771**

Young, G.M.
Geodynamic controls on glaciation in Earth history [1994, eng] **48-5038**

Young, K.L.
Adaption to permafrost in the Canadian north: present and future [1992, eng] **48-2033**
Effects of terrain disturbance on arctic slope hydrology [1993, eng] **48-484**

Young, K.R.
Forest ecosystem regeneration at a Peruvian timberline [1993, eng] **48-935**

AUTHOR INDEX

Yu, C.H.
Numerical simulations of wind-driven flows in the antarctic coastal zones [1993, eng] **48-2138**
Yu, C.S.
Models of boundary value problems pertaining to the Weddell Sea [1990, eng] **48-777**
Yu, H.
Development of refrigerating cycling bath [1993, chi] **48-1460**
Yu, M.
Hydrothermal implications of radio wave propagation in glaciers [1993, eng] **48-2400**
Yu, Q.
Instantaneous-state deformation and strength behaviour of frozen soil [1993, eng] **48-502**
On the mechanics of frozen soil cutting [1993, eng] **48-759**
Yu, Q.H.
Notched Charpy bar impact test on frozen soil [1993, eng] **48-5258**
Yu, S.Q.
Degeneration of permafrost in upstream valley region of Heilong River [1993, eng] **48-493**
Frost heave forces and pile stability [1993, eng] **48-427**
Traffic and transport on ice cover in Nenjiang River [1992, chi] **48-2018**
Yuan, H.Y.
Permafrost and ground water in the Greater Khingan Range [1993, chi] **48-4490**
Permafrost and groundwater in the Greater Khingan Range [1993, eng] **48-5259**
Yue, G.K.
Report of a 1990 polar stratospheric aerosol cloud [1994, eng] **48-4442**
Yue, H.S.
Seasonally frozen ground and frost heave in Gansu Province [1993, eng] **48-5260**
Yue, Q.J.
Ice observation on a platform in Bohai Sea [1994, eng] **48-5557**
Yuge, F.
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids [1993, eng] **48-5068**
Yurczyk, R.F.
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration [1994, eng] **48-3108**
Zabel, I.H.H.
Consistency in long-term observations of oceans and ice from space [1994, eng] **48-4414**
Zabilansky, L.J.
Effects of navigation in ice on near-shore vegetation and sediment [1994, eng] **48-5547**
Zabortseva, T.I.
Accumulation and use of wastes as an integral part of the use of natural resources (Eastern Siberia) [1989, rus] **48-905**
Zabusov, V.V.
Comprehensive analysis of the safety conditions in condensed gas plants in the Far North [1993, rus] **48-1908**
Zadnik, B.
Interferential type of climate, reason for damages to overhead lines [1993, eng] **48-843**
Zaghlou, S.
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis [1994, eng] **48-3369**
Zagorodnov, V.S.
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals [1994, eng] **48-5354**
Directional drilling in glacier boreholes [1994, eng] **48-5342**
Drilling of glacier boreholes with a hydrophilic liquid [1994, eng] **48-5341**
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude [1994, eng] **48-5363**
Heated drilling bit and thermoelastic stresses in an ice core [1994, eng] **48-5358**
Hydrophilic liquid in glacier boreholes [1994, eng] **48-3828**
Interaction of hydrophilic liquid with ice [1993, eng] **48-875**
Zagoruiko, V.A.
Container design for frost sensitive arctic freight [1993, eng] **48-5017**
Zaikanov, V.G.
Floodplain deposits in northern Yakutia [1993, eng] **48-2541**
Zaĭkin, V.N.
Annual dynamics of nutrient transition through the western boundary of the Barents Sea [1991, rus] **48-2525**
Zaĭtsev, IU.V.
Experimental investigations of some polar sailing problems [1993, eng] **48-4347**
Zaĭtseva, E.A.
Modeling surface flow hydrography of a spring flood in small rivers [1992, rus] **48-184**
Zaĭtseva, N.A.
Atmospheric ozone study (Ozone-90) [1993, rus] **48-2483**
Zakarauskas, P.
Pressure ridging effect on Arctic Ocean noise spectra [1994, eng] **48-3143**
Sea ice cracking as an acoustic index of seabed reflectivity [1993, eng] **48-5128**
Spatial and source level distributions of ice cracking in the Arctic Ocean [1994, eng] **48-3142**
Zakharov, V.F.
Can sea ice be responsible for climate change? [1992, eng] **48-733**
Cooling of the Arctic and the ice cover of the arctic seas [1992, rus] **48-1478**
Zakka, Z.A.
Effects of high-range water reducers on the properties of fresh and hardened concrete [1989, eng] **48-3707**
Zakrzewski, W.P.
Simulating superstructure icing on the entire vessel [1992, eng] **48-1546**
Three-dimensional time-dependent ship icing model [1993, eng] **48-172**
Zale, R.
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia [1994, eng] **48-4828**
Zamiatin, N.A.
Arctic yesterday and today [1992, rus] **48-2741**
Zamolodchikov, D.G.
Carbon storage in Russian forest tundra [1994, eng] **48-4822**
Zampieri, P.
Antiskid device for motor vehicles [1990, eng] **48-2184**
Zanokha, L.L.
Classification of meadow communities of the tundra zone on the Taymyr Peninsula: the *Pediculari verticillatae-Astragaletum arctici* association [1993, rus] **48-1643**
Zanon, G.
Impact of the recent glacier retreat on the hydrology of an Alpine basin [1994, eng] **48-5570**
Reports on the Glaciological Survey of 1991 [1993, ita] **48-4117**
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91 [1993, ita] **48-4116**
Zárbok, Z.
Wind speed effect on transmission line icing [1993, eng] **48-815**
Zarling, J.P.
Experiments and analysis of pipe freezing [1993, eng] **48-867**
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers [1994, eng] **48-3021**
Thermosyphon applications in cold regions [1993, eng] **48-860**
Zarubin, A.M.
Floristic findings in the Baikal region [1993, rus] **48-5276**
Zavarzin, G.A.
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature [1993, eng] **48-1898**
Psychrophilic methanotroph from tundra soil [1993, eng] **48-4661**
Zawadzki, I.
Mathematical model of snowstorm microphysics [1993, eng] **48-2346**
Study of a CASP storm: analysis of radar data [1993, eng] **48-2345**
Zayatz, I.
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations [1993, eng] **48-3291**
Zdanovskii, A.B.
Handbook of experimental data on the solubility of multicomponent water-saline systems [1953, rus] **48-1290**
Zeidler, M.D.
X-ray investigation of supercooled water [1992, eng] **48-1896**
Zeller, E.J.
Solar flares in antarctic ice cores [1993, eng] **48-3940**
Zemtsov, A.A.
Characteristics of relict permafrost on the West Siberian plain [1993, eng] **48-3761**
Zeng, L.F.
Modelling ductile behavior of columnar ice using computational plasticity [1994, eng] **48-5565**
Zeng, Q.C.
Numerical simulation of the climatic change caused by CO2 doubling [1993, eng] **48-768**
Numerical simulation of the ice age climate [1993, eng] **48-3221**
Zeng, Z.G.
Ground penetrating radar for sub-road permafrost detection [1993, eng] **48-494**
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway [1993, chi] **48-4393**
Zent, A.P.
Quasi-periodic climate change on Mars [1992, eng] **48-5045**
Zhadin, E.A.
Influence of wave activity on anomalous changes in the ozone layer [1993, rus] **48-2491**
Zhan, C.
Anisotropic model for gained ice ductility [1994, eng] **48-3830**
Effect of crystal orientation on behaviour of columnar grained sea ice [1994, eng] **48-3023**
Zhan, C.Z.
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study [1993, eng] **48-5381**
Zhan, J.
Absorption and scattering of microwaves by falling snow [1993, eng] **48-2004**
Zhang, C.Q.
Frozen ground and the western waterway from south to north [1993, chi] **48-1453**
Impact of salt type on deformation of frozen saline soils [1993, eng] **48-5234**
Microstructure damage in the frozen soil creep process [1993, chi] **48-1439**
Microstructure damage theory of creep in frozen soil [1993, eng] **48-5229**
Problems of water transfer from south to north China over western permafrost areas [1993, eng] **48-495**
Strength and yield criteria of frozen soil [1993, eng] **48-431**
Strength and yield criteria of frozen soil [1992, chi] **48-1417**
Strength characteristic of frozen sandy soil [1993, chi] **48-1445**
Study on creep of frozen soil by damage mechanics [1993, chi] **48-1438**
Zhang, D.
Study on remote sensing models of sea ice thickness by microwave radiometry [1993, eng] **48-3234**
Zhang, G.W.
Simulation of daily runoff in the Urumqi River basin with the improved tank model [1990, eng] **48-1598**
Zhang, H.Y.
Loess-soil cement freeze-thaw weakening [1993, eng] **48-496**
Zhang, J.L.
Interannual and climatic characteristics of an ice ocean circulation model [1993, eng] **48-4209**
Zhang, J.M.
Frozen ground and the western waterway from south to north [1993, chi] **48-1453**
Problems of water transfer from south to north China over western permafrost areas [1993, eng] **48-495**
Zhang, J.R.
Improving of microwave remote sensing of sea ice [1993, eng] **48-1715**
Zhang, J.Y.
Dynamic strain characteristics of saturated frozen silt [1994, eng] **48-3394**
Dynamic strength and deformation properties of saturated frozen silt [1993, chi] **48-1447**
Influence of various factors on dynamic elastic modulus of frozen silt [1992, chi] **48-1420**
Zhang, J.Z.
Application of thermalpile to culvert engineering in permafrost region [1993, eng] **48-375**
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau [1993, chi] **48-4502**
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau [1993, eng] **48-5261**
Zhang, L.
Antarctic sea ice and ENSO event [1993, eng] **48-4842**
Antarctic sea ice variations [1993, chi] **48-2029**
Zhang, L.H.
Water and heat transfer in the active layer [1993, eng] **48-5247**
Zhang, L.X.
Analysis of the second phase transition of sodium chloride solution in freezing soil [1993, eng] **48-497**
Deaerator use in soil tests [1993, chi] **48-1458**
Essential types of heave development for soil freezing [1993, chi] **48-1431**
Identification of sea ice using NOAA satellite data [1993, eng] **48-1064**
Law of unfrozen water content change in frozen saline (NaCl) soils [1992, eng] **48-1402**
Measuring heat conductivity of frozen soil [1993, eng] **48-464**
Method determining the thermal conductivity of frozen soil with the heat flow meter [1992, chi] **48-1414**
Overburden pressure and ice formation in clay [1993, chi] **48-1433**
Primary study on composition of methane hydrate [1993, eng] **48-373**
Primary study on composition of methane hydrate [1992, chi] **48-1421**
Second order phase change in saline freezing soil [1992, chi] **48-1411**
Study on the general thermal parameters of the frozen NaCl soil [1993, chi] **48-1436**
Unfrozen water content and freeze-thaw in saline soil [1993, chi] **48-1434**
Zhang, M.Y.
Effect of Bohai ice crushing strength on vertical structures [1993, chi] **48-2096**
Zhang, Q.B.
Forest fire degradation of plant succession and permafrost [1993, eng] **48-498**

AUTHOR INDEX

Zhang, R.Y.
Ice crystal detection in Sierra Nevada orographic storms [1993, eng] **48-2368**
Ice particle growth and cloud electrical structure [1994, eng] **48-4855**
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications [1993, eng] **48-2315**
Simulation of polar stratospheric cloud chemical reactions [1993, eng] **48-967**
Stratospheric implications of heterogeneous chlorine interactions [1994, eng] **48-3810**

Zhang, T.
Changing climate and permafrost temperatures in the Alaskan Arctic [1993, eng] **48-499**
Ice observation on a platform in Bohai Sea [1994, eng] **48-5557**

Zhang, T.H.
Prevention of ice damage to hydraulic structures [1993, eng] **48-5239**

Zhang, T.J.
Climate, snow cover and permafrost temperatures in Alaska [1993, eng] **48-5034**

Zhang, W.
Predictions of radiowave attenuations due to a melting layer of precipitation [1994, eng] **48-4645**
Scattering of radiowaves by a melting layer of precipitation [1994, eng] **48-4165**

Zhang, W.C.
Texture and fabric of an ice core from a Tian Shan glacier [1993, eng] **48-1855**

Zhang, W.J.
Glacier-generated ground motions at Bomi, southeastern Tibet [1993, eng] **48-2754**

Zhang, X.
Grouting to enhance frost resistance of pile structures [1993, eng] **48-500**

Zhang, X.G.
Failure mechanism of loess cement under freeze thaw cycles [1992, chi] **48-1406**

Zhang, X.H.
Numerical simulation of the climatic change caused by CO2 doubling [1993, eng] **48-768**

Zhang, X.K.
Reservoir damage from frost heave [1993, eng] **48-448**

Zhang, X.P.
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region [1993, chi] **48-4574**

Zhang, X.T.
Melting at the leading edge of a river ice cover [1992, eng] **48-804**

Zhang, X.Z.
Development of refrigerating cycling bath [1993, chi] **48-1460**

Zhang, Y.N.
MST-88 multichannel temperature data logger [1993, chi] **48-4592**

Zhang, Y.Y.
Study of the prevention of ice damage of structure in water in cold regions [1993, eng] **48-407**

Zhang, Z.
Numerical analysis of temperature and stress on the canal subsoil during freezing [1993, chi] **48-4499**
Numerical analysis of temperature and stress on the canal subsoil during freezing [1993, eng] **48-5262**

Zhang, Z.X.
Instantaneous-state deformation and strength behaviour of frozen soil [1993, eng] **48-502**
On the mechanics of frozen soil cutting [1993, eng] **48-759**

Zhang, Z.Y.
Formation characteristics of frozen-area bogs in China [1993, eng] **48-501**

Zhao, H.J.
Detection of liquid water content in supercooled clouds [1993, eng] **48-135**

Zhao, J.
Protein changes and functions during cold acclimation of winter wheat [1993, eng] **48-505**

Zhao, K.
Improving of microwave remote sensing of sea ice [1993, eng] **48-1715**

Zhao, L.
Climatic changes and permafrost formation in China [1993, eng] **48-503**
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake [1993, eng] **48-2134**

Zhao, X.F.
Engineering geology of the Wudaoliang oil pump station [1992, chi] **48-1491**
Guide to the permafrost and environment of the Qinghai-Xizang Plateau [1993, eng] **48-2131**
Loess and its climate records in Kunlun Shan region since the late Pleistocene [1993, eng] **48-504**
Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway [1992, chi] **48-1488**
Permafrost desertification in China [1993, eng] **48-401**
Solifluction on permafrost slopes [1993, eng] **48-388**

Zhao, X.S.
Analogic conditions of simulation test of frozen soil's creep [1993, chi] **48-1443**
Laser detection of creep in frozen soil [1993, chi] **48-1456**

Zhao, Y.T.
Crop cold-resistant appraisal principles and appraisal technology system research [1993, chi] **48-4508**
Protein changes and functions during cold acclimation of winter wheat [1993, eng] **48-505**

Zharkov, V.V.
Generation of internal waves from floating ice [1992, eng] **48-2313**
Ship waves in a continuously stratified basin with ice cover [1993, eng] **48-2462**

Zheng, B.F.
Thermal conductivity of pipe insulations during condensation [1993, eng] **48-872**

Zheng, B.X.
Lakes in the western Kunlun Mountain area [1993, chi] **48-2095**

Zheng, C.
Synthetic diesel oil for use in cold temperatures [1993, eng] **48-5524**

Zheng, D.
Grouting to enhance frost resistance of pile structures [1993, eng] **48-500**

Zheng, Q.
Study on remote sensing models of sea ice thickness by microwave radiometry [1993, eng] **48-3234**

Zheng, Q.P.
Railway construction and environmental protection in permafrost [1993, eng] **48-5263**

Zheng, Y.
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity [1993, eng] **48-3115**

Zhitkovskii, IU.IU.
Iceberg noises [1994, eng] **48-4473**

Zhou, B.G.
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan [1992, chi] **48-2016**

Zhou, D.Y.
Frost heave of seasonally frozen soil in Inner Mongolia [1993, chi] **48-4491**
Frost heave of seasonally frozen soil in Inner Mongolia [1993, eng] **48-5264**

Zhou, H.P.
Pavement responses to seasonal variations [1994, eng] **48-4913**

Zhou, S.Z.
Ice wedge significance during Qinghai-Tibetan Plateau glaciation [1994, eng] **48-4260**

Zhou, X.J.
1990 antarctic surface energy balance components, Zhongshan Station [1993, eng] **48-1514**

Zhou, X.P.
Air pollution and the air purity conditions in Wudaoliang region [1992, chi] **48-1486**

Zhou, X.Q.
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China [1993, eng] **48-429**

Zhou, Y.W.
Forest fire effects on frozen ground thermal regime [1993, eng] **48-506**
Snow cover effect on permafrost temperature [1993, eng] **48-422**

Zhou, Z.L.
Towards rational deformation limit states for buried pipelines [1993, eng] **48-4313**

Zhou, Z.M.
Fossil periglacial landforms in the Shennongjia Mountains, China [1993, chi] **48-4489**
Fossil periglacial landforms in the Shennongjia Mountains, China [1993, eng] **48-5265**

Zhu, C.
Mass movement in the Great Wall Station area, Antarctica [1992, eng] **48-78**
Periglacial landform development in West Antarctica [1993, eng] **48-507**
Permafrost structure, King George I. [1993, eng] **48-1515**

Zhu, G.C.
BZXJ super light ice core drill [1994, eng] **48-5334**

Zhu, J.H.
Fossil ice and periglacial structure in Chinese mountain soils [1993, eng] **48-508**

Zhu, J.J.
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains [1992, chi] **48-2015**

Zhu, L.N.
Engineering geological survey and distribution of permafrost along Qingkang Highway [1993, chi] **48-1454**
Frozen ground and the western waterway from south to north [1993, chi] **48-1453**
Problems of water transfer from south to north China over western permafrost areas [1993, eng] **48-495**
Similarity analysis of modeling test of frozen soil under load [1993, eng] **48-5220**
Similitude analysis of modeling test of frozen soil under load [1993, chi] **48-1448**
Similitude modeling of frozen soil excluding overburden [1992, chi] **48-1419**
Simulation of soil freeze-thaw mechanics [1993, eng] **48-509**

Zhu, Q.
Frost heave prevention design for the rigid canal linings [1993, eng] **48-510**

Zhu, Y.
Tropospheric rivers and ice core data [1994, eng] **48-4391**

Zhu, Y.B.
Porous slab mixtures to prevent frost damage to roads [1993, chi] **48-4506**
Research of porous slab structures for preventing frost damage of roads [1993, eng] **48-5266**

Zhu, Y.L.
Climate change influence on highway stability in a permafrost zone [1993, eng] **48-351**
Constitutive relations of frozen soil in uniaxial compression [1992, eng] **48-1399**
Dynamic strain characteristics of saturated frozen silt [1994, eng] **48-3394**
Dynamic strength and deformation properties of saturated frozen silt [1993, chi] **48-1447**
Influence of various factors on dynamic elastic modulus of frozen silt [1992, chi] **48-1420**
New method for predicting the long-term strength of frozen soils [1992, eng] **48-1405**
Notched Charpy bar impact test on frozen soil [1993, eng] **48-5258**

Zhukov, A.F.
Distribution functions of the intensity fluctuations of a laser beam in snowfall [1993, eng] **48-2145**

Zhuravlev, A.M.
Container design for frost sensitive arctic freight [1993, eng] **48-5017**

Zhurbenko, M.P.
Lecanora geophila and *Arctpeltis thuleana* (Lichenes) from the Siberian Arctic [1993, rus] **48-4227**
Two new lichen species found in Taymyr Peninsula [1993, eng] **48-1634**

Zia, P.
Durability of high performance concrete [1993, eng] **48-2672**

Ziegler, C.L.
Lightning morphology in a tornadic thunderstorm [1994, eng] **48-4691**

Ziegler, D.E.
Aircraft propeller with electric deicers [1991, eng] **48-2247**

Zielinski, G.A.
Volcanic record in a Greenland ice core [1994, eng] **48-3941**

Zierten, T.A.
Aerodynamic effects of aircraft deicing/anti-icing fluids [1991, eng] **48-3695**

Zieve, P.B.
Self-contained apparatus for de-icing aircraft surfaces using magnetic pulse energy [1990, eng] **48-2191**

Zikeev, L.N.
Structure and frost resistance of centrifuged concrete with admixtures [1989, rus] **48-307**

Zimmerman, T.J.E.
Development and testing of a composite ice-resisting wall [1993, eng] **48-4129**

Zimmermann, M.
Climatic change and debris flow activity in high-mountain areas [1989, eng] **48-2571**
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps [1990, eng] **48-3034**

Zimmie, T.F.
Changes in hydraulic conductivity caused by freeze-thaw [1992, eng] **48-1110**

Zimov, S.A.
CO_2 monitored fluxes from northern terrestrial ecosystems [1993, eng] **48-2310**

Ziskin, C.
Growth of avalanche education in Japan [1994, eng] **48-3277**

Ziverts, A.
Runoff modelling in Latvia [1993, eng] **48-2889**

Zolotar', A.J.
Permafrost preservation during global warming [1993, eng] **48-537**

Zolotareva, B.
Soil biological activity and transformation of organic matter during winter [1993, eng] **48-2307**

Zolotkov, A.
Data bases and map of units of radiational risks in Russian Arctic [1993, eng] **48-4552**

Zolotov, IU.F.
Blade of snow plough [1992, eng] **48-5513**

Zolotukhin, G.E.
Criteria of radiation and seismic safety of underground nuclear tests [1993, eng] **48-4547**

Zoltai, S.C.
Canadian bog landforms in relation to permafrost patterns [1994, eng] **48-3501**

Cyclic permafrost development in Canadian peatlands [1993, eng] **48-943**

Zóphóníasson, S.
Jökulhlaup records 1984-1988 [1992, ice] **48-5315**

Zou, X.Q.
Drilling characteristics of engineering geology of permafrost on Da Hinggan Ling region [1993, eng] **48-5267**
Reducing frost mounds under foundations by lowering the water table [1993, chi] **48-4495**
Reduction of frost heave by lowering the water table [1993, eng] **48-5225**

Zrnić, D.S.
Hail growth analysis using dual-Doppler and multiparameter radars [1993, eng] **48-2466**
Polarimetric radar of mixed-phase mesoscale precipitation [1994, eng] **48-3757**
Polarized radar discrimination of mixed precipitation [1994, eng] **48-2325**

Zubakin, G.K.
Prospects of exploiting oil and gas resources in the Arctic shelf and tasks of hydrometeorology [1992, eng] **48-729**

Zubarev, P.S.
Cyclohexyl nitrate fuel additive for cold starting [1992, eng] **48-5510**

Zubova, M.A.
Mechanism of action of pour-point depressants [1994, eng] **48-4167**

Zuev, V.A.
Interaction of hovercraft icebreaker platforms with ice cover [1994, eng] **48-3952**
Theoretical modelling of ice resistance of ships [1994, eng] **48-5629**

Zufelt, J.E.
Current issues in river ice forecasting [1993, eng] **48-686**
Ice jam data collection [1994, eng] **48-5406**
Modes of ice cover failure during shoving and thickening [1992, eng] **48-1559**
Physical model studies of measures to mitigate ice jamming in the upper Niagara River [1994, eng] **48-5609**
Physical model to study ice jamming processes in the upper Niagara River [1994, eng] **48-5608**
Stage-frequency of highly variable ice jam events [1994, eng] **48-3359**

Zukowski, M.D.
Nitrate deposition to the Alaskan snowpack [1993, eng] **48-3907**

Zulawski, D.P.
Adjustable steering post for snowmobiles [1991, eng] **48-2231**

Zuo, L.
Frost resistant bridge piles in a waterlogged area [1993, chi] **48-4505**
Frost resistant bridge piles in a waterlogged area [1993, eng] **48-5216**

Zurek, R.W.
Interhemispheric comparison of stratospheric polar dynamics [1993, eng] **48-629**

Zurlo, J.R.
Diesel engine cold starting with catalytically ignited recirculated exhaust gas [1994, eng] **48-3092**

Zviagin, V.V.
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone [1993, eng] **48-2611**

Zwack, P.
Study of a CASP storm: analysis of radar data [1993, eng] **48-2345**

Zwally, H.J.
Ice sheet surface variations derived from radar altimetry [1993, eng] **48-3595**
Ice sheet topography from retracked ERS-1 altimetry [1994, eng] **48-3441**

SUBJECT INDEX

Ablation
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] **48-3599**
Compaction and ablation processes of road snow and ice. Maeno, N., [1989,jpn] **48-674**
Death of an ice sheet. Lindstrom, D.R., et al, [1993,eng] **48-331**
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] **48-740**
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] **48-3252**
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] **48-2059**
Surface mass balance of the Antarctic Peninsula ice sheet. Frolich, R.M., [1992,eng] **48-780**
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] **48-1325**
See [also]: Glacier ablation

Abrasion
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] **48-5624**
Ice pellets and decontamination. Manificat, A., et al, [1993,fre] **48-3280**
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] **48-2671**

Absorption
Attenuation of outdoor sound propagation levels by a snow cover. Albert, D.G., [1993,eng] **48-2607**
Characteristics of cryogenic weathering of hard rocks, such as dolerites. Gurevich, V.M., [19[illegible],rus] **48-4784**
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] **48-5375**
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] **48-4956**
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] **48-4155**
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] **48-954**
See [also]: Atmospheric attenuation; Attenuation; Light transmission; Radiation absorption; Transparence; Turbidity

Accelerated melting
See [also]: Artificial melting

Accidents
Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] **48-1764**
Accident classification in the Arctic. Frimodt-Møller, B., et al, [1992,eng] **48-4963**
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] **48-4964**
Analysis of snowfall characteristics and various snow disasters in urban area. Suzuki, T., et al, [1993,jpn] **48-2003**
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] **48-1974**
Avalanche report 1991/1992. Documentation and case studies. Ruhm, F., ed, [1993,ger] **48-765**
Avalanche safety for skiers & climbers. Daffern, T., [1992,eng] **48-1933**
Avalanches in the Teton Range, summer 1993. Woodmencey, J., [1993,eng] **48-1782**
Avoiding aircraft icing. Horne, T.A., [1993,eng] **48-2881**
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view. Ambach, W., et al, [1993,eng] **48-4092**
Characteristics of winter traffic accidents in the Tohoku Region. Horii, M., et al, [1989,jpn] **48-710**
Correlation of studded tire use and road safety. Øberg, G., et al, [1993,swe] **48-4022**
Crash landings in Greenland—1. Operation Bolero. Ancker, P.E., [1980,dan] **48-2649**
Crash landings in Greenland—2. The white wilderness. Ancker, P.E., [1980,dan] **48-2650**
Crash landings in Greenland—4. Traces obliterated. Ancker, P.E., [1986,dan] **48-2652**
Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] **48-841**
Deaths and injuries from snow accidents in Japan. Numano, N., [1993,jpn] **48-3185**
Effect of road surface and meteorological conditions on traffic accidents in winter. Kaku, T., [1989,jpn] **48-675**
Effect of wing ice contamination on essential flight characteristics. Brumby, R.E., [1991,eng] **48-3685**
Emergency readiness in heavy snow region. Part 1. Yamagata, T., et al, [1993,jpn] **48-1978**
Emergency readiness in heavy snow region. Part 2. Takahashi, A., et al, [1993,jpn] **48-1979**
Epidemiology of injuries in northern areas. Middaugh, J., [1992,eng] **48-4962**
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] **48-4967**
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal. Meon, G., et al, [1993,eng] **48-2797**
Evaluating snow risk potential in urban areas. Kitaura, M., et al, [1993,jpn] **48-1980**
Freezing precipitation on lifting surfaces. Oleskiw, M.M., [1991,eng] **48-4864**
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] **48-4100**
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] **48-2796**
Growth of avalanche education in Japan. Nitta, R., et al, [1994,eng] **48-3277**
Icebound curiosities of aviation history. Ancker, P.E., [1981,dan] **48-2651**
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] **48-854**
Influences of regulation of studded tire in Hokkaido. Asano, M., et al, [1993,eng] **48-1200**
Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] **48-843**
Lulu Pass avalanche. Gamble, S., [1994,eng] **48-4119**
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] **48-2798**
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] **48-4237**
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] **48-4961**
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] **48-1186**
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] **48-4966**
Snow avalanche disaster of winter 1992 in southeastern Anatolia, Turkey. Gürer, I., [1993,eng] **48-3173**
Snow avalanche disaster of winter 1992 in southeastern Anatoliya, Türkiye. Gürer, I., [1993,eng] **48-766**
Snow avalanches in Iceland during winter 1989-1990. Magnusson, M.M., [1992,ice] **48-5317**
Snow avalanches in Iceland, winter 1988-89. Magnússon, M.M., [1991,ice] **48-5294**
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] **48-2358**
Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] **48-4965**
Snowstorms and countermeasures in 1985. Yamanaka, Y., [1986,jpn] **48-14**
Traffic accidents in the snowy season (1). Kaku, T., [1989,jpn] **48-698**
Traffic accidents in the snowy season (2). Kaku, T., [1989,jpn] **48-709**
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] **48-1199**
Traffic on ice and snow. Øberg, G., [1993,eng] **48-5061**
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] **48-1192**
Transcription of presentations. SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993, [1993,eng] **48-1107**
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] **48-1198**
See [also]: Safety

Acclimatization
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] **48-1249**
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] **48-2752**
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] **48-2559**
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] **48-4060**
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] **48-1252**
Cold stress and cold adaptation. Budd, G.M., [1993,eng] **48-3738**
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] **48-4835**
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] **48-1758**
Crop cold-resistant appraisal principles and appraisal technology system research. Zhao, Y.T., et al, [1993,chi] **48-4508**
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et a., [1993,eng] **48-3936**
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] **48-1253**
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] **48-1250**
Protein changes and functions during cold acclimation of winter wheat. Zhao, Y.T., et al, [1993,eng] **48-505**
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] **48-4834**
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] **48-3429**
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] **48-1254**
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] **48-1251**
Site of Special Scientific Interest, Antarctica. Kanda, H., [1992,jpn] **48-2446**
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] **48-5057**
See [also]: Cold tolerance; Introduced plants

Accreted ice
See [also]: Ice accretion

Accumulation
See [also]: Snow accumulation

Accuracy
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] **48-4643**
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] **48-4831**
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] **48-5440**
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] **48-4808**
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] **48-3790**
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] **48-2670**
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] **48-936**
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] **48-3585**
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] **48-2891**
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] **48-133**
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] **48-5133**
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] **48-2397**
Case study in forecasting the stratospheric vortex during EASOE. Carver, G.D., et al, [1994,eng] **48-5500**
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] **48-1891**
Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] **48-4011**
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] **48-3594**
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] **48-3006**
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] **48-2405**
Comments on paper by Bustamante et al. Leggett, D.C., [1994,eng] **48-5417**
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] **48-2360**
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] **48-2508**
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] **48-2354**
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] **48-1347**
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] **48-3839**

Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Dangers of multiyear averaging in analyses of long-term climate trends. Parkinson, C.L., [1989,eng] 48-2362
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] 48-3075
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] 48-947
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] 48-5487
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Effects of groundwater samplers on water quality: a literature review. Parker, L.V., [1993,eng] 48-2608
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] 48-4706
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] 48-2843
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
Further analyses of the Climax cloud-seeding experiments Rangno, A.L., et al, [1993,eng] 48-2369
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Global warming on trial. Broecker, W.S., [1992,eng] 48-1611
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Improving snow data.[1994,eng] 48-3238
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] 48-3558
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] 48-5146
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] 48-2427
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] 48-5423
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] 48-1818
Measuring air in fresh and hardened concrete. Hover, K.C. [1993,eng] 48 2757
Mesoscale structure of a severe ice storm. Rauber, R.M., e al, [1994,eng] 48-5437
Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] 48-5157
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
Need for removing biases from rain and snowgage measurements. Legates, D.R., [1993,eng] 48-1804
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] 48-3574
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426
Rutschblock precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] 48-3593
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] 48-1511
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] 48-2865
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] 48-5132
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] 48-1796
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152

Acidity
See [also]: Chemical properties

Acoustic measurement
Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Air-deliverable, ice-penetrating sonobuoy. Feltz, L.V., et al, [1991,eng] 48-3664
Antarctic career move for ageing torpedo. Anderson, I., [1993,eng] 48-3626
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] 48-1615
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1995,eng] 48-1044
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] 48-417
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al, [1991,eng] 48-4733
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465
Under-ice broadband transient measurements and processing. Meredith, R.W., [1992,eng] 48-4744

Acoustic waves
See [also]: Sound waves

Acoustics
Attenuation of outdoor sound propagation levels by a snow cover. Albert, D.G., [1993,eng] 48-2607
See [also]: Ice acoustics; Noise (sound); Snow acoustics; Sound transmission; Underwater acoustics

Activated sludge
See [also]: Sludges

Active layer
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] 48-487
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] 48-391
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-2299
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] 48-2701
Dynamics of the elements of climate and the strength of the active layer in western Yakutia. Vasil'ev, I.S., [1992,rus] 48-4779
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] 48-441
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] 48-3385
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions. Skriabin, P.N., et al, [1992,rus] 48-4800
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] 48-456
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] 48-3384
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] 48-355
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] 48-1515
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] 48-2064
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Seasonal emission of methane from the active layer of organic tundra soils—scale and controlling factors. Christensen, T.R., [1993,eng] 48-2308

Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] 48-5241
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska. Bilello, M.A., et al, [1993,eng] 48-882
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543

Additives
See [also]: Cement admixtures; Concrete admixtures; Fuel additives

Adhesion
See [also]: Ice adhesion; Ice crystal adhesion

Administration
Management plan for the Cape Roberts Project. Davey, F.J., [1992,eng] 48-2324

Admixtures
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] 48-376
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] 48-4167
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
See [also]: Cement admixtures; Concrete admixtures

Adsorption
Adsorption of long-lived radionuclides on sediment from the Kara Sea. Fuhrmann, M., et al, [1993,eng] 48-4564
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] 48-4025
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979

Advection
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] 48-5502
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] 48-5484
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [199?,eng] 48-2466
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] 48-1856
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615

Adventive plants
See [also]: Introduced plants

Aeolian soils
See [also]: Eolian soils

Aeration
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347

Aerial surveys
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] 48-5451
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Airborne electromagnetic mapping of ice thickness in the Baltic Sea. Hautaniemi, H., et al, [1994,eng] 48-5592
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] 48-5477
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Airborne studies of ocean-particle-cloud-interactions in the Arctic. Hobbs, P.V., [1993,eng] 48-2646
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] 48-5457
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Changes in the Vestfold Hills ice boundary. Gore, D.B., [1993,eng] 48-3247
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] 48-626
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] 48-4844
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] 48-2579
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] 48-5456
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] 48-4907
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] 48-3054
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al, [1993,eng] 48-1057
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] 48-5448
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] 48-3731
Radiation and eddy flux experiment 1993 *(REFLEX II)*. Kottmeier, C., et al, [1994,eng] 48-3928
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] 48-3712
Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] 48-5453
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] 48-5449
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] 48-1772
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] 48-4594
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470
See [also]: Infrared reconnaissance; Spaceborne photography

Aerodynamic test facilities
See [also]: Wind tunnels

Aerosols
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] 48-5497
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] 48-5451
Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] 48-2958
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] 48-5483
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] 48-2386
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] 48-5138
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] 48-4014

Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] 48-1755
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] 48-3891
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] 48-631
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] 48-230
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] 48-229
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] 48-3885
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] 48-5487
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] 48-2477
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] 48-4717
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] 48-2579
Experimental study of growth and phase change of polar stratospheric cloud particles. Hallett, J., et al, [1992,eng] 48-3698
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] 48-3061
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] 48-3730
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] 48-4441
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] 48-2580
Infrared studies of sulphuric acid films. Middlebrook, A.M., et al, [1993,eng] 48-3638
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] 48-3680
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles. Il'in, S.D., et al, [1993,rus] 48-2495
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Major results from SAGE II. Poole, L.R., et al, [1993,eng] 48-3732
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] 48-339
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Modification of physical properties of natural obscurants. Hogan, A.W., [1993,eng] 48-3032
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] 48-3052
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Organic acids and selected nitrogen species for ABLE-3. Talbot, R.W., [1991,eng] 48-4856
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] 48-4013
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993 erg] 48-3908
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Periodic temperature inversions in the arctic troposphere. Nagurnyi, A.P., et al, [1993,eng] 48-1825
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] 48-5490
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] 48-4700
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] 48-5469
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] 48-2589
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Report of a 1990 polar stratospheric aerosol cloud. Yue, G.K., et al, [1994,eng] 48-4442
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] 48-3058
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] 48-5031
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] 48-3542
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463
Stratospheric aerosol increase after Mt. Pinatubo eruption. Iwasaka, Y., et al, [1993,eng] 48-1868
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] 48-5485
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Stratospheric volcanic aerosols and PSCs over Spitsbergen. Beyerle, G., [1994,eng] 48-3925
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Thorium, uranium and plutonium in surface air at Vardö. Kolb, W., [1993,eng] 48-4548
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] 48-5482
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462

Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Universal characteristic of ice-forming nuclei. Kim, N.S., et al, [1992,eng] 48-3765
Upper-atmosphere aerosols: properties and natural cycles. Turco, R.P., [1992,eng] 48-4860
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] 48-1507
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586

See [also]: Particles; Smoke generators

Afforestation

See [also]: Forestry; Revegetation

Age determination

Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] 48-3131
Dendrochronology and glacier variations in the Italian Alps. Baroni, C., et al, [1993,ita] 48-4095
Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] 48-4692
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] 48-3509
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] 48-1011
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] 48-1506
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341

See [also]: Geochronology; Ice dating; Permafrost dating; Radioactive age determination; Soil dating

Aggregates

See [also]: Concrete aggregates; Soil aggregates

Agriculture

Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Agricultural melioration and cryoecology in permafrost conditions. Gavril'ev, P.P., [1992,rus] 48-4790
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
Crop cold-resistant appraisal principles and appraisal technology system research. Zhao, Y.T., et al, [1993,chi] 48-4508
Developing means of controlling weeds in meadow agrophytocenoses. D'iachkovskiĭ, V.V., [1988,rus] 48-915
Dynamics of the decomposition of butyl 2,4-D ether in frozen soils. Chakhov, V.K., et al, [1988,rus] 48-913
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] 48-2156
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Local introduction of fertilizer. Antipina, D.K., [1988,rus] 48-912
Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska. Mironova, N.A., [1988,rus] 48-916
Protein changes and functions during cold acclimation of winter wheat. Zhao, Y.T., et al, [1993,eng] 48-505
Questions on the melioration of taiga soils in the Transural. Bachurin, G.V., et al, [1989,rus] 48-907
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Use and preservation of agricultural resources of Yakutia; collected scientific papers. Konorovskiĭ, A.K., ed, [1988,rus] 48-908
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240

Air bubbles

See [also]: Bubbles

Air bubbling systems

See [also]: Bubbling

Air circulation

See [also]: Atmospheric circulation

Air conditioning

Air conditioning system with a conduit for deicing driveways. Albertson, M.E., et al, [1992,eng] 48-2241
Calmac ice storage test report. Stovall, T.K., [1991,eng] 48-3676
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskiĭ, V.N., [1982,rus] 48-1287
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] 48-2213
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460

See [also]: Cooling systems

Air cushion vehicles

Interaction of hovercraft icebreaker platforms with ice cover. Zuev, V.A., et al, [1994,eng] 48-3952
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] 48-3971

Air ducts

See [also]: Ducts

Air entrainment

Air clathrate hydrates in antarctic ice. Craig, H., et al, [1993,eng] 48-3943
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Compound to increase the frost-resistance of hardened concrete. Berntsson, L., et al, [1991,eng] 48-2252
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743
Firn chemistry at Vostok Station. Bender, M.L., et al, [1994,eng] 48-4218
Freeze-thaw durability of roller-compacted concrete made with Roiad binder. Delagrave, A., et al, [1994,fre] 48-5143
Frost resistance of portland cement concrete with admixtures. Khan, S.A., [1992,eng] 48-805
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Microstructure of air-entrained concrete. Rashed, A.M.I., [1991,eng] 48-3524
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Why is there air in concrete. Hover, K.C., [1993,eng] 48-286

Air flow

Adverse aerodynamic impact of leading-edge ice buildups. Lynch, F.T., et al, [1991,eng] 48-3691
Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] 48-3695
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] 48-3694
Aerodynamic protection of premises against cold through apertures. Shilkrot, E.O., et al, [1994,eng] 48-3865
Aerodynamic torque in snow accretion on transmission lines. Poots, G., et al, [1993,eng] 48-819
AGARD symposium on effects of adverse weather on aerodynamics. Reinmann, J.J., [1991,eng] 48-3683
Anti-icing valve. Norris, R.M., et al, [1989,eng] 48-4363
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration. Cain, G.E., et al, [1994,eng] 48-3108
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] 48-1961
Controller valve for deicer. Hlavac, K.A., [1992,eng] 48-1368
Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] 48-4063
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics. Van Hengst, J., et al, [1991,eng] 48-3692
Effect of wing ice contamination on essential flight characteristics. Brumby, R.E., [1991,eng] 48-3685
Effects of adverse weather on aerodynamics.[1991,eng] 48-3684
Effects of frost on wing aerodynamics and take-off performance. Kind, R.J., et al, [1991,eng] 48-3687
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] 48-3565
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574
Incompressible solver and ice accretion on an airfoil. Ok, H.N., [1994,eng] 48-3554
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] 48-3049
Moisture protection of the industrial building enclosures in a cold climate by using dry jets. IUr'ev, O.F., [1994,eng] 48-3866
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] 48-2841
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] 48-3145
On the influence of gravitational forces on space building air circulation schemes. Grimitlin, M.I., [1994,eng] 48-3859
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] 48-5491
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Reduction of the energy consumption in air curtains. Nikulin, M.V., et al, [1994,eng] 48-3864
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] 48-2700
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] 48-761
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510
Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690

Air ice interface

See [also]: Ice air interface

Air ice water interaction

1992 Arctic Leads Experiment: an overview of the meteorology. Wolfe, D.E., et al, [1993,eng] 48-2126
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990, [1990,eng] 48-4664
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Airborne studies of ocean-particle-cloud-interactions in the Arctic. Hobbs, P.V., [1993,eng] 48-2646
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Antarctic sea-ice relationships with indices of the atmospheric circulation of the Southern Hemisphere. Carleton, A.M., [1989,eng] 48-1660
Archived time-series of Atlantic Ocean meteorological variables and surface fluxes. Bunker, A.F., et al, [1979,eng] 48-3699
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Arctic sciences program research summaries, 1992. Fondrk, J., ed, et al, [1993,eng] 48-1463
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] 48-1140
Atmospheric and oceanographic studies in Lake Saroma. Shirasawa, K., et al, [1993,eng] 48-1073
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Atmospheric sciences on Ice Station Weddell. Andreas, E.L., et al, [1992,eng] 48-3780
Canadian SARES project within the framework of the Canada-Japan Complementarity Study. Legendre, L., [1993,eng] 48-1072

Circulation and water mass modification in the Weddell Sea. Fahrbach, E., [1992,eng] 48-235
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] 48-4194
Climates of the world. Martyn, D., [1992,eng] 48-2709
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] 48-1749
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Effect of the equatorial Pacific on Okhotsk Sea ice. Tachibana, Y., et al, [1990,jpn] 48-4672
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Exploring the southern ocean response to climate change. Final report. Martinson, D.G., et al, [1993,eng] 48-3817
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Global change and arctic sea ice. Lemke, P., [1993,eng] 48-183
Global climate models and Antarctica. Connolley, W.M., [1992,eng] 48-783
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] 48-1781
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands). Klöser, H., et al, [1994,eng] 48-4983
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice processes. Augustein, E., et al, [1991,eng] 48-4867
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] 48-5380
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] 48-319
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange. Crowley, T.J., et al, [1988,eng] 48-1658
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] 48-1053
Mixed layer dynamics in the onset of freezing. Claes, D.C., [1990,eng] 48-3668
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] 48-1815
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] 48-1677
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Observation of the heat flux between atmosphere and ocean with remote sensing (I). Sasaki, Y., et al, [1990,eng] 48-4682
Ocean currents induced by wind and waves. Melsom, A., [1992,eng] 48-4764
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] 48-340
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
On the boundary layer changes during the sea ice formation. Kodama, Y., et al, [1993,eng] 48-1074
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] 48-3461
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] 48-620
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3190
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Sea ice lead dynamics from ERS-1 SAR. Stern, H.L., et al, [1994,eng] 48-3448
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] 48-1943
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] 48-3727
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] 48-2347
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] 48-3128
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989. Sato, K., et al, [1990,jpn] 48-4680
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] 48-5600
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] 48-3161
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] 48-5574
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

Air inflated structures
See [also]: Inflatable structures

Air leakage
Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] 48-2700
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] 48-761

Air masses
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] 48-4763
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Atmospheric ozone study (Ozone-90). Zaĭtseva, N.A., ed, et al, [1993,rus] 48-2483
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] 48-5439
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere. Shalamianskiĭ, A.M., et al, [1993,rus] 48-2490
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] 48-4595
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] 48-1856
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] 48-3054
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] 48-3049
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] 48-5491
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] 48-4132
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] 48-5119
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Transport of radon between South America and the Antarctic Peninsula. Pereira, E.B., et al, [1993,eng] 48-4539
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] 48-4594
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986. Karol', I.L., et al, [1993,rus] 48-2484
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627

Air pollution
Abstracts. International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993, [1993,eng] 48-796
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] 48-4763
Air pollution and atmospheric environmental effects. Qiu, Q., et al, [1992,chi] 48-1485
Air pollution and the air purity conditions in Wudaoliang region. Wen, J., et al, [1992,chi] 48-1486
Air pollution on the Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1482
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] 48-5138
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] 48-4284
Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] 48-1755
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898
Assessment of air pollution from the Noril'sk Mining and Metallurgy Plant. Filo', P.N., [1993,rus] 48-5288
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] 48-2461
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] 48-5145
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Chemical composition of precipitation in a prealpine area of eastern Switzerland. Langenegger, O., [1990,eng] 48-1593

Chlorine threat to stratospheric ozone. Waters, J.W., [1993,eng] 48-2666
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1487
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] 48-2477
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] 48-3755
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] 48-5388
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] 48-3046
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Halocarbons in the arctic and antarctic atmosphere. Sturges, W.T., [1993,eng] 48-3053
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
HT deposition to snow. Chalk River Laboratories, March, 5-6, 1991. Ogram, G.L., [1992,eng] 48-2644
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] 48-2713
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] 48-3050
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] 48-3680
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] 48-5146
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] 48-3245
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Modification of physical properties of natural obscurants. Hogan, A.W., [1993,eng] 48-3032
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] 48-3052
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
North Slope Borough's experiences with incineration. Thomas, J.E., et al, [1989,eng] 48-4136
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219
Organic acids and selected nitrogen species for ABLE-3. Talbot, R.W., [1991,eng] 48-4856
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Probe for acidity of falling snow and deposited snow. Hasegawa, T., et al, [1993,jpn] 48-1964
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] 48-3045
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Recent changes in arctic temperature inversions. Bradley, R.S., et al, [1993,eng] 48-1469
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] 48-1483
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Study on acid snow. Araki, K., et al, [1987,jpn] 48-550
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Theoretical support for the Airborne Antarctic Ozone Experiment. Final report. Hartmann, D.L., [1992,eng] 48-3818
Thorium, uranium and plutonium in surface air at Vardö. Kolb, W., [1993,eng] 48-4548
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Upper-atmosphere aerosols: properties and natural cycles. Turco, R.P., [1992,eng] 48-4860
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] 48-4571
Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution. Makarova, T.D., [1992,rus] 48-2118

Air snow interface
See [also]: Snow air interface

Air soil interface
See [also]: Soil air interface

Air temperature
1990 temperature and precipitation during Northern Wetlands Study. Mortsch, L.D., [1994,eng] 48-4602
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] 48-3155
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Antarctic automatic weather station data for the calendar year 1991. Keller, L.M., et al, [1993,eng] 48-1662
Antarctic automatic weather station data for the calendar year 1992. Keller, L.M., et al, [1994,eng] 48-4131
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986. Colony, R.L., et al, [1989,eng] 48-3333
Associations between snow cover extent and surface air temperature over North America. Robinson, D.A., et al, [1993,eng] 48-2944
Atmospheric circulation and weather and climate background in the Wudaoliang region. Jiang, H., et al, [1992,chi] 48-1484
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Atmospheric sciences on Ice Station Weddell. Andreas, E.L., et al, [1992,eng] 48-3780
Australian snowfields past and present. Galloway, R.W., [1986,eng] 48-203
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1745
Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] 48-3216
Chemical depletion of ozone in the Arctic lower stratosphere during winter 1992-93. Manney, G.L., et al, [1994,eng] 48-5124
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] 48-4975
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] 48-4169
Climates of the world. Martyn, D., [1992,eng] 48-2709
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] 48-4113
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] 48-2863
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] 48-5441
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] 48-1791
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] 48-5439
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] 48-3426
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] 48-2597
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] 48-4844
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Examining the influence of snow cover on morning air temperature. Hogan, A.W., et al, [1993,eng] 48-2948
Freeze/frost data. Koss, W.J., et al, [1988,eng] 48-4399
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] 48-1797
Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] 48-2572
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] 48-2035
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] 48-629
International Arctic Buoy Program data report for 1 January 1992-31 December 1992. Colony, R.L., et al, [1993,eng] 48-3285

International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] **48-2497**
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] **48-62**
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] **48-5170**
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] **48-1183**
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] **48-2139**
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] **48-1807**
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] **48-1856**
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] **48-5467**
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] **48-4694**
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] **48-3728**
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] **48-3509**
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] **48-1549**
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] **48-2379**
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] **48-3037**
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] **48-4195**
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] **48-1794**
Multiyear variation of annual and seasonal totals of precipitation and their relation to air temperature. Sudakov, P.A., et al, [1992,rus] **48-4460**
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] **48-455**
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] **48-5493**
Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] **48-1789**
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] **48-5306**
Numerical simulation of the climatic change caused by CO2 doubling. Wang, H.J., et al, [1993,eng] **48-768**
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] **48-3512**
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] **48-3145**
Ozone hole reaches new low. Kerr, R.A., [1993,eng] **48-997**
Periodic temperature inversions in the arctic troposphere. Nagurnyi, A.P., et al, [1993,eng] **48-1825**
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] **48-387**
Polar atmosphere nitrous oxide morphology during AASE II. Podolske, J.R., et al, [1993,eng] **48-2583**
Polar regions surface temperatures from Nimbus 7. Comiso, J.C., [1994,eng] **48-3305**
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] **48-5119**
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] **48-2468**
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] **48-209**
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] **48-622**
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] **48-196**
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] **48-620**
Response of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] **48-1476**
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] **48-2552**
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] **48-2390**
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] **48-5418**
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] **48-5005**
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] **48-3516**
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] **48-3256**
Snow cover and climate. Cohen, J., [1994,eng] **48-4768**
Snow cover effect in spring. Groisman, P.IA., et al, [1994,eng] **48-2553**
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] **48-1718**
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] **48-1803**
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] **48-5176**
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] **48-782**
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] **48-1787**
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] **48-5495**
Station climatic summaries: China, the former USSR, and Mongolia,[1994,eng] **48-4754**
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] **48-624**
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] **48-5442**
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] **48-5449**
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] **48-1023**
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] **48-4652**
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] **48-5291**
Temperature extremes. Hickcox, D.H., [1994,eng] **48-3325**
Temperature variation at eighteen Canadian weather stations. McCormick, G., [1994,eng] **48-3362**
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] **48-1790**
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] **48-5600**
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] **48-2831**
Total ozone related to stratospheric temperature over Showa Station. Chubachi, S., [1993,eng] **48-593**
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] **48-1835**
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] **48-1605**
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] **48-191**
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] **48-2125**
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] **48-2203**
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] **48-1507**
Weather contributes to record ozone loss. Walker, G., [1993,eng] **48-996**
Weather extremes. Schmidli, R.J., [1991,eng] **48-3708**

Air water interactions
^{234}Th and ^{210}Po disequilibria as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] **48-4540**
Atlas of the energy balance of the northern polar area. Girdiuk, G.V., et al, [1992,rus] **48-1479**
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] **48-2576**
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] **48-3431**
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] **48-2744**
CO_2 uptake in the Nordic seas. Nes, A., et al, [1992,eng] **48-2905**
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] **48-4023**
Effect of hydrostatic pressure on the formation of air-hydrate crystals. Ikeda, T., et al, [1993,eng] **48-1865**
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] **48-1864**
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] **48-4606**
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] **48-2049**
Global climate. Kondrat'ev, K.IA., [1992,rus] **48-304**
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] **48-3061**
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] **48-2491**
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] **48-1913**
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica. IUrganov, L.M., [1993,rus] **48-2488**
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al, [1992,rus] **48-1912**
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] **48-3058**
Surface energy of air-hydrate crystals in Vostok ice core. Uchida, T., et al, [1993,eng] **48-1863**
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] **48-1835**
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] **48-4758**

Airborne equipment
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] **48-4172**
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] **48-4483**
System for artificially triggering snow avalanches from helicopter. Wendl, F., [1993,eng] **48-4435**
Winning the ice war. Wilhelmsen, G., [1990,eng] **48-1922**

Airborne radar
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] **48-977**
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] **48-3576**
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] **48-2465**
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] **48-3585**
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] **48-4175**
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] **48-3594**
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] **48-2816**
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] **48-3002**
Electromagnetic ice thickness sensor for marginal ice zone. Prinsenberg, S.J., et al, [1993,eng] **48-178**
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] **48-4484**
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] **48-2810**
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] **48-1295**
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] **48-4037**
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] **48-3595**
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] **48-3589**
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] **48-4832**
Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] **48-4400**
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] **48-2150**
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] **48-4833**
Sea ice altimeter processing scheme at the EODC. Laxon, S.W., [1994,eng] **48-4036**
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] **48-5136**
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] **48-1303**
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] **48-1772**
Unusual radar echoes from the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] **48-538**

Aircraft
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] **48-2477**
Winter ground gremlins. Cox, B., [1990,eng] **48-1920**
See [also]: Airplanes; Balloons; Helicopters; Tanker aircraft

Aircraft icing
Advancements in the LEWICE Ice Accretion Model. Wright, W.B., [1993,eng] **48-4886**
Adverse aerodynamic impact of leading-edge ice buildups. Lynch, F.T., et al, [1991,eng] **48-3691**
Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] **48-4749**
Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] **48-3695**
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] **48-3694**
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] **48-5027**
AGARD symposium on effects of adverse weather on aerodynamics. Reinmann, J.J., [1991,eng] **48-3683**
Aircraft de-icing and anti-icing composition. Comeau, D., et al, [1990,eng] **48-2266**
Aircraft deicer system. Manda, L.J., et al, [1993,eng] **48-1940**
Aircraft deicing apparatus utilizing heat distributing means. Byles, J.D., [1991,eng] **48-1941**
Aircraft ground deicing and anti-icing fluids. Louchez, P.R., et al, [1994,eng] **48-3111**
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] **48-3064**
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] **48-2504**
Aircraft icing environment in wintertime, low ceiling conditions. Guttman, N.B., et al, [1985,eng] **48-5100**
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] **48-856**
Aircraft icing prevention. Czaplyski, V., [1993,eng] **48-2880**
Aircraft icing. Lansford, H., [1990,eng] **48-1921**
Aircraft propeller with electric deicers. Bowser, A.J., et al, [1991,eng] **48-2247**
Anti-icing compositions for e.g. aircraft wing surfaces, with increased hold over time. Ashrawi, S.S., et al, [1993,eng] **48-5519**
Anti-icing system results on a NASA 0012 airfoil. Al-Khalil, K.M., et al, [1993,eng] **48-4883**
Anti-icing valve. Norris, R.M., et al, [1989,eng] **48-4363**
Apparatus and method for de-icing and anti-icing (and/or, cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] **48-4959**

Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Avoiding aircraft icing. Horne, T.A., [1993,eng] 48-2881
Biodegradation of aircraft deicing fluids in soil at low temperatures. Klečka, G.M., et al, [1993,eng] 48-3265
BLASIM: a computational tool to assess ice impact damage on engine blades. Reddy, E.S., et al, [1993,eng] 48-2640
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration. Cain, G.E., et al, [1994,eng] 48-3108
Capacitive ice detector for aircraft. Pruzan, D.A., et al, [1993,eng] 48-2638
Close-up analysis of aircraft ice accretion. Hansman, R.J., Jr., et al, [1993,eng] 48-4885
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] 48-1961
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Controller valve for deicer. Hlavac, K.A., [1992,eng] 48-1368
De-icer; inflatable tubes. Tritt, P.G., et al, [1991,eng] 48-2248
Deterministic multi-zone ice accretion modeling. Yamaguchi, K., et al, [1991,eng] 48-4872
Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] 48-4063
Development of regulations for certification of civil aviation under icing conditions. Cattaneo, G., [1991,fre] 48-3686
Device for heating aircraft deicer fluid. Hightower, E.C., [1987,eng] 48-4419
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics. Van Hengst, J., et al, [1991,eng] 48-3692
Effect of wing ice contamination on essential flight characteristics. Brumby, R.E., [1991,eng] 48-3685
Effects of adverse weather on aerodynamics.[1991,eng] 48-3684
Effects of frost on wing aerodynamics and take-off performance. Kind, R.J., et al, [1991,eng] 48-3687
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] 48-1371
Electro-repulsive separation system for deicing. Adams, L.J., et al, [1989,eng] 48-1875
Electrothermal timed de-icing apparatus for aircraft air foils. Kugelman, M.M., et al, [1989,eng] 48-5521
Experimental investigation of passive infrared ice detection for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-4871
Expulsive ice detector for aircraft or watercraft rigging. Goldberg, J.I., et al, [1993,eng] 48-4416
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285
Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] 48-3565
Freezing precipitation on lifting surfaces. Oleskiw, M.M., [1991,eng] 48-4864
Glycol ice protection system on a general aviation airfoil. Kohlman, D.L., et al, [1981,eng] 48-1142
Heating aircraft deicer fluid. Whitmire, T.W., et al, [1987,eng] 48-4418
Helicopter icing in VMC below low stratus clouds. Fuchs, W., [1993,eng] 48-4340
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Helicopter rotor performance in icing conditions. Britton, R.K., [1992,eng] 48-4857
Ice accretion and performance degradation calculations with LEWICE/NS. Potapczuk, M.G., et al, [1993,eng] 48-4884
Ice accretion prediction for a typical commercial transport aircraft. Bidwell, C.S., [1993,eng] 48-4888
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice certification of the Dornier 328 regional airliner. Welte, D., et al, [1991,eng] 48-3693
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Ice shape and performance for a multi-element airfoil. Berkowitz, B.M., et al, [1991,eng] 48-4859
Ice thickness and particle size from an eddy current deicer. Smith, S.O., [1994,eng] 48-3110
Ice thickness measurement system for the Icing Research Tunnel calibration. Gibson, T.L., et al, [1993,eng] 48-4889
Ice: escape & evade. Cox, B., [1990,eng] 48-1919
Icing effects on aircraft stability and control. Ratvasky, T.P., et al, [1993,eng] 48-4879
Icing relevant parameters from sounding of stratiform clouds. Hoffmann, H.E., et al, [1990,ger] 48-4862
Icing studies in an aerospace altitude test facility. Osborn, A.R., et al, [1991,eng] 48-4736
Incompressible solver and ice accretion on an airfoil. Ok, H.N., [1994,eng] 48-3554
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] 48-4400
Laser ice removal system. Vega, R., et al, [1990,eng] 48-2197
Link rod for aircraft deicer vehicle. Vestergaard, G., [1993,eng] 48-4960
Low power deicer tests on a swept inlet component. Bond, T.H., et al, [1993,eng] 48-4880
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Microwave deicing for aircraft engine propulsor blades. Martin, A.N., [1991,eng] 48-2222
Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-3688
National plan to improve aircraft icing forecasts.[1986,eng] 48-1127
Numerical simulation of an icing event during WISP-90. Modica, G.D., et al, [1992,eng] 48-4748
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] 48-4887
Particle trajectory computer program for icing analysis of axisymmetric bodies. Frost, W., et al, [1992,eng] 48-4861
Passive infrared ice detection technique for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-1959
Pneumatic boot for helicopter rotor deicing. Blaha, B.J., et al, [1980,eng] 48-1146
Pneumatic deicer. Ely, D.N., et al, [1988,eng] 48-4272
Prediction of ice accretion on a swept NACA 0012 airfoil. Reehorst, A.L., [1992,eng] 48-4858
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Preliminary study on ice shape tracing with a laser light sheet. Mercer, C.R., et al, [1993,eng] 48-2639
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
Refining de-icing tactics.[1994,eng] 48-3237
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] 48-3010
Review of icing research at the Royal Aerospace Establishment. Gent, R.W., [1991,eng] 48-3689
Rime-, mixed- and glaze-ice evaluations of three scaling laws. Anderson, D.N., [1994,eng] 48-4890
Root damage analysis of aircraft engine blade subject to ice impact. Reddy, E.S., et al, [1992,eng] 48-4882
Rosemount freezing rain sensor. Stein, P., [1993,eng] 48-828
Rotorcraft aviation icing research requirements: research review and recommendations. Peterson, A.A., et al, [1981,eng] 48-1145
Self-contained apparatus for de-icing aircraft surfaces using magnetic pulse energy. Zieve, P.B., [1990,eng] 48-2191
Side discharge anti-ice manifold. Miller, S.M., [1993,eng] 48-1654
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Solid-state sequencing controller for timed de-icing. Kugelman, M.M., et al, [1988,eng] 48-5520
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids. Laforte, J.L., et al, [1994,eng] 48-3367
Surface roughness due to residual ice in the use of low power deicing systems. Shin, J.W., et al, [1993,eng] 48-4881
Thermal anti-ice protection for aircraft. Arnold, M.J., et al, [1993,eng] 48-4427
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] 48-2806
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms. Hartwell, S.I., et al, [1993,eng] 48-1846
Transcription of presentations. SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993, [1993,eng] 48-1107
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690
Wing/ground ice detection system for aircraft. Kunik, W.G., [1994,eng] 48-3109
Winning the ice war. Wilhelmsen, G., [1990,eng] 48-1922
Winter operations guidance for air carriers, and other adverse weather topics. U.S. Federal Aviation Administration, [1982,eng] 48-1144

Aircraft landing areas
Construction estimate of runway on East Ongul I. Umemura, T., et al, [1993,jpn] 48-1184
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Winter ground gremlins. Cox, B., [1990,eng] 48-1920
See [also]: Airports; Ice runways; Runways

Airplanes
Crash landings in Greenland—1. Operation Bolero. Ancker, P.E., [1980,dan] 48-2649
Crash landings in Greenland—2. The white wilderness. Ancker, P.E., [1980,dan] 48-2650
Crash landings in Greenland—4. Traces obliterated. Ancker, P.E., [1986,dan] 48-2652
Icebound curiosities of aviation history. Ancker, P.E., [1981,dan] 48-2651
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
See [also]: Tanker aircraft

Airports
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] 48-811
Construction of highways and airports on permafrost. Davydov, V.A., [1993,rus] 48-1523
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] 48-3975
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Regional economy along the Okhotsk Sea in Hokkaido. Furuya, A., et al, [1994,eng] 48-3992
Surface observation climatic summaries for Ellsworth AFB, South Dakota.[1991,eng] 48-4742
Surface observation climatic summaries for Fairbanks IAP, Alaska.[1991,eng] 48-4722
Surface observation climatic summaries for Fort Devens Ain, Massachusetts.[1991,eng] 48-4720
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas.[1991,eng] 48-4723
Surface observation climatic summaries for Fulda AAF, Germany.[1991,eng] 48-4743
Surface observation climatic summaries for Illesheim, Germany.[1991,eng] 48-4739
Surface observation climatic summaries for Kunsan AB, Korea.[1991,eng] 48-4738
Surface observation climatic summaries for McGuire AFB, New Jersey.[1991,eng] 48-4721
Surface observation climatic summaries for Wright-Patterson AFB, Ohio.[1991,eng] 48-3671
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany.[1992,eng] 48-4746
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon.[1991,eng] 48-3669
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] 48-4798
Winter maintenance on Transport Canada airports. Anderson, F., [1993,eng] 48-5083

Alassy
Formation of suprapermafrost ground water on alassy. Arkhipov, V.V., [1988,rus] 48-914
Problems in the rational use of alassy. Desiatkin, R.V., [1988,rus] 48-910
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Use and preservation of agricultural resources of Yakutia; collected scientific papers. Konorovskii, A.K., ed, [1988,rus] 48-908

Albania
Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] 48-1869

Albedo
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] 48-3206
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] 48-1805
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] 48-1792
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] 48-3075
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520

Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] **48-1336**
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] **48-2674**
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] **48-3654**
Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] **48-2974**
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] **48-3255**
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] **48-5369**
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] **48-1606**
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] **48-1296**
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] **48-632**
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] **48-3197**
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] **48-3807**
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] **48-2888**
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] **48-2059**
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] **48-4384**
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] **48-2976**
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] **48-3653**
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] **48-4690**
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] **48-988**
Modelling cirrus optical properties. Hess, M., et al, [1993,eng] **48-2990**
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] **48-2989**
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] **48-4204**
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] **48-3144**
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] **48-4671**
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] **48-2822**
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] **48-3522**
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] **48-989**
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] **48-1337**
Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] **48-3304**
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] **48-4203**
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] **48-5043**
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] **48-1158**
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] **48-1802**
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] **48-2977**
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] **48-3256**
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] **48-1778**
Snow cover and climate. Cohen, J., [1994,eng] **48-4768**
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] **48-2549**
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] **48-1299**
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] **48-3712**
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] **48-2592**
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] **48-1294**
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] **48-764**
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] **48-1607**
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] **48-1605**
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] **48-4389**
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] **48-1300**
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] **48-1214**

Algae
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] **48-5002**
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] **48-4212**
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] **48-2795**
Composition and distribution of attached algal communities in small rivers of the Upper Kolyma River basin. Potapova, M.G., [1992,rus] **48-1624**
Distribution of antarctic diatoms in the Weddell Sea during austral winter. Moisan, T.A., et al, [1993,eng] **48-3735**
Effect of algaeic methanes on atmospheric ozone. Itoh, N., et al, [1994,eng] **48-4157**
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] **48-4533**
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] **48-2697**
Halogenated hydrocarbons in polar macroalgae. Laturnus, F., [1993,ger] **48-2243**
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] **48-5367**
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] **48-5094**
Ice algae and kisel algae distribution. Hellum, C., [1992,eng] **48-2907**
Ice algae in the subarctic ocean: review. Taguchi, S., [1990,eng] **48-4673**
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] **48-85**
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] **48-1082**
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] **48-3201**
Life cycle of a calanoid copepod in the Weddell Sea. Kurbjeweit, F., et al, [1993,eng] **48-594**
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] **48-2480**
Microalgae distribution on Signy I. Davey, M.C., et al, [1993,eng] **48-1359**
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] **48-3779**
Microbial response to experimental sea ice formation. Grossmann, S., et al, [1993,eng] **48-2412**
New alga of red snow in the Windmill Is. region. Ling, H.U., et al, [1993,eng] **48-770**
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] **48-1083**
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] **48-5131**
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands). Klöser, H., et al, [1994,eng] **48-3042**
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] **48-1071**
Photoprotective function for secondary carotenoids of snow algae. Bidigare, R.R., et al, [1993,eng] **48-725**
Physiology of High Arctic sea ice algae. Smith, R.E.H., et al, [1990,eng] **48-3242**
Phytoplankton in the Antarctic Marginal Ice Zone. Kang, S.H., [1992,eng] **48-1024**
Phytoplankton population dynamics in Lake Fryxell. Spaulding, S.A., et al, [1994,eng] **48-4813**
Phytoplankton production and biomass in South Atlantic Ocean frontal zones. Laubscher, R.K., et al, [1993,eng] **48-918**
Phytoplankton variations in Weddell Sea ice formation. Gleitz, M., et al, [1993,eng] **48-2411**
Primary production in sea ice covered waters. Alexander, V., [1990,eng] **48-4665**
Production of organic matter in antarctic sea shelf. Dhargalkar, V.K., et al, [1992,eng] **48-1525**
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] **48-4554**
Release of an ice-active substance by antarctic sea ice diatoms. Raymond, J.A., et al, [1994,eng] **48-3043**
Responses to temperature of an Arctic psychrophylic ice diatom. Smith, R.E.H., et al, [1994,eng] **48-3791**
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] **48-2941**
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] **48-3058**
Species composition of the golden algae *(Chrysophyta)* from the Ob' River. Naumenko, IU.V., [1992,rus] **48-1627**
Spectral light environment in sea ice. Kishino, M., [1993,eng] **48-1077**
Spring biochemical composition of sea ice diatoms in McMurdo Sound. Nichols, D.S., et al, [1993,eng] **48-46**
Summary of WinCruise IV to the Antarctic Peninsula during September 1991. Quetin, L.B., et al, [1992,eng] **48-5098**
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] **48-4389**
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] **48-4386**
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] **48-4388**
Weddell Sea algal communities. Fahl, K., et al, [1993,eng] **48-597**
Will the ozone hole over Antarctica affect the productivity of the southern ocean. El-Sayed, S.Z., [1992,eng] **48-3246**

Alimentation
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure. Sudakova, N.G., et al, [1992,rus] **48-1396**
See [also]: Glacier alimentation

Alkalinity
See [also]: Chemical properties

All terrain vehicles
Bv 206: a proven concept in winter mobility. Ljunggren, J., [1993,eng] **48-1165**
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] **48-454**
Flextrac MPV: a novel concept in a personal all-terrain vehicle. Osborne, M.D., [1993,eng] **48-1181**
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] **48-1161**
Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991, [1993,eng] **48-1160**
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] **48-4961**
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] **48-4966**
U.S. Army's Bv 206 oversnow vehicle. Lundberg, U., [1993,eng] **48-1180**
Ultra-track: the ultimate all-terrain attachable tracks. Jacobson, R., [1993,eng] **48-1179**
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] **48-5416**
See [also]: Tracked vehicles

Alluvium
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] **48-929**
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] **48-2541**
Flow over dunes in ice-covered channels. Smith, B.T., et al, [1994,eng] **48-5545**
Fluvial lithomorphogenesis in the Protva River valley. Antonov, S.I., et al, [1993,rus] **48-3742**
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] **48-1398**
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] **48-5268**
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia. Bursik, M., et al, [1993,eng] **48-4217**
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] **48-1137**
River bed forming deposits in rivers of northern Eurasia. Lodina, R.V., [1993,rus] **48-3741**

Alpine glaciation
Alpine glaciers—memories and mirrors of civilization and a mountain environment. Vivian, R., [1989,fre] **48-1819**
Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] **48-3661**
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] **48-3662**
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] **48-1424**
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] **48-4702**
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] **48-5063**
Formation and distribution of the sorted circles at the head area of Urumqi River. Liu, G.N., et al, [1993,chi] **48-4576**
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,chi] **48-4489**
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,eng] **48-5265**
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany. Wang, C., et al, [1993,eng] **48-1720**
Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley. Patzelt, G., [1977,ger] **48-3313**
Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] **48-2669**
Glaciers of the Alps. Rott, H., et al, [1993,eng] **48-4028**
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] **48-4029**
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake. Qiu, G.Q., et al, [1993,eng] **48-2134**
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] **48-2131**
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] **48-3557**
Holocene periglacial processes in Inner Mongolia. Cui, Z.J., et al, [1992,chi] **48-2012**
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] **48-2384**
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] **48-2095**
Landform and origin of Hanasi Lake, Altay Mountains. Feng, M., [1993,chi] **48-4588**
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] **48-2015**
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] **48-3424**
Minor expansion of alpine glaciers in Wright Valley, Antarctica. Hall, B.L., et al, [1992,eng] **48-2625**

Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] 48-4928
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology. Xu, Q.Q., [1993,chi] 48-4572
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] 48-3310
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991, [1993,ita] 48-4091
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province. Li, S.J., et al, [1992,chi] 48-2011
Quaternary glaciations in the Altai Mountains of China. Cui, Z.J., et al, [1992,chi] 48-2014
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] 48-4117
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] 48-3139
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

See [also]: Mountain glaciers

Alpine landscapes
Air pollution and atmospheric environmental effects. Qiu, Q., et al, [1992,chi] 48-1485
Air pollution and the air purity conditions in Wudaoliang region. Wen, J., et al, [1992,chi] 48-1486
Air pollution on the Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1482
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] 48-961
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] 48-5382
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] 48-205
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Atmospheric circulation and weather and climate background in the Wudaoliang region. Jiang, H., et al, [1992,chi] 48-1484
Australian snowfields past and present. Galloway, R.W., [1986,eng] 48-203
Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1487
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Climbing ice. Chouinard, Y., [1978,eng] 48-1930
Computer modeling of alpine stream diversions. Brady, T.M., et al, [1993,eng] 48-689
Correction of radiometric distortions in snow cover imagery. Holecz, F., et al, [1993,eng] 48-1685
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Denudation rate by gelifraction in Tian Shan. Liu, G.N., et al, [1992,chi] 48-2013
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] 48-354
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] 48-441
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] 48-2458
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] 48-3343
Evaluation of precipitation gauges for measuring precipitation on mountainous watersheds. Hanson, C.L., [1990,eng] 48-1568
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] 48-4094
Frozen ground database system for the Qinghai-Xizang Plateau. Xia, Z.Y., [1992,chi] 48-1489
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] 48-204
Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1985,eng] 48-2572
Glacier mass balance measurements on Wurtenkees in the Sonnblick region. Böhm, R., [1986,ger] 48-613
Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] 48-1599
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake. Qiu, G.Q., et al, [1993,eng] 48-2134
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] 48-2131
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] 48-3258
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] 48-1567
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Improving methods for measurement and estimation of snow storage in alpine watersheds. Elder, K., et al, [1990,eng] 48-1578
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] 48-207
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
Investigations of the precipitation conditions in the central part of the Tianshan mountains. Blumer, F.P., [1990,eng] 48-1586
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] 48-612
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland. Johnson, R.C., et al, [1990,eng] 48-1569
Modern snow and ice techniques. March, B., [1984,eng] 48-1958
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Mountain and arctic warfare from Alexander to Afghanistan. Gregory, B., [1989,eng] 48-1932
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] 48-4929
On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] 48-206
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway. Zhao, X.F., [1992,chi] 48-1488
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939
Point modeling of snow cover water equivalent. Rohrer, M.B., et al, [1990,eng] 48-1583
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] 48-608
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Sea, ice and rock: sailing and climbing above the Arctic Circle. Bonington, C., et al, [1993,eng] 48-1931
Seed survival in a high alpine block field. Moen, J., [1993,eng] 48-938
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] 48-1483
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] 48-5418
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] 48-2348
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snowmelt in medium-high mountains and recharging of underlying karst. Chauve, P., et al, [1990,fre] 48-1574
Soldiers on skis: a pictorial memoir of the 10th Mountain Division. Whitlock, F., [1992,eng] 48-1929
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149
Subnivean development of a snowbank geophyte. Hamerlynck, E.P., et al, [1994,eng] 48-3503
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] 48-406
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057

Alpine soils

See [also]: Mountain soils

Alpine tundra
Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] 48-5421
Altitudinal distribution of vascular plants in the mountains of the Kronotskiy reservation. Kuvaev, V.B., [1993,rus] 48-4225
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] 48-3216
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Evaluation of evaporation models for alpine tundra, British Columbia, Canada. Saunders, I.R., et al, [1990,eng] 48-1571
Evaporation from alpine tundra in the Canadian Cordillera. Bailey, W.G., et al, [1990,eng] 48-1570
Flowering phenology in tundra plants. Molau, U., [1993,eng] 48-2423
Lichens of the central part of the Iskaten Mountain ridge in western Chukotskiy Peninsula. Makarova, I.I., et al, [1992,rus] 48-1623
Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient. IUrtsev, B.A., et al [1993,rus] 48-1629
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Seedling density and mortality patterns among elevations in *Sedum lanceolatum.* Jolls, C.L., et al, [1983,eng] 48-3345
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057

Alps
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] 48-3662
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969. Finsterwalder, R., et al, [1977,ger] 48-3309
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] 48-1576

Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Schwarzmilzferner glacier in the Allgäuer Alps. Mader, R., [1991,ger] 48-3657
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

Altimetry
See [also]: Height finding

Altiplanation
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564

Altitude
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] 48-5382
Altitude variations in ice formation zones on glaciers in Central Tien Shan. Golubev, V.N., et al, [1992,rus] 48-1395
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] 48-207
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] 48-356
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] 48-3345
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] 48-406

Altitude measurement
See [also]: Height finding

Amorphous ice
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Evidence for two kinds of hydrogen bond in ice. Li, J.C., et al, [1993,eng] 48-543
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] 48-3939
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Structural transitions in amorphous water ice and astrophysical implications. Jenniskens, P., et al, [1994,eng] 48-5108
See [also]: Vitreous ice

Amphibious vehicles
Multipurpose underwater transport ship outfitted for the Arctic. Dronov, B.F., et al, [1992,rus] 48-748

Analog simulation
See [also]: Computerized simulation

Analysis (chemistry)
See [also]: Chemical analysis

Analysis (mathematics)
3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] 48-2317
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] 48-459
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange. Gruzdev, A.N., et al, [1992,eng] 48-3764
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] 48-2866
Approximate evaluation of the stress state of unrated sections of a main gas pipeline. Sosin, T.S., et al, [1990,rus] 48-52
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
Atlas of the energy balance of the northern polar area. Girdiuk, G.V., et al, [1992,rus] 48-1479
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Calculating the volume of mountain glaciers from their area. Erasov, N.V., et al, [1992,rus] 48-4461
Calculation of frost heave in saturated soil under constant surcharge. Sheng, Y., [1994,eng] 48-3395
Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] 48-462
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Characteristics of the structural formation of weld seams, applied by an irregular fusion method. Moskvitina, L.V., et al, [1990,rus] 48-54
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Coefficients of linear expansion of freezing soils. Mordovskii, S.D., et al, [1993,eng] 48-70
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] 48-3393
Construction heat engineering. Russia. Gosudarstvennyĭ komitet po delam stroitel'stva, [1986,rus] 48-1286
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskiĭ, V.N., [1982,rus] 48-1287
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Deformations of shoreline slopes of reservoirs in permafrost regions. Gogolev, E.S., [1992,rus] 48-4781
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Design of piles in swelling soils. Shishkin, V.IA., [1990,eng] 48-1387
Designing ice-resistant structures according to the limit strength criterion. Appolonov, E.M., [1992,rus] 48-749
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] 48-1264
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] 48-651
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Electrical properties of ice. Petrenko, V.F., [1993,eng] 48-1000
Electromagnetic wave propagation in saline permafrost. Fedikukin, I.V., et al, [1993,eng] 48-381
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] 48-1215
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] 48-2859
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine. Manukalo, V.A., et al, [1993,rus] 48-2075
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] 48-492
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis. Kestler, M.A., et al, [1994,eng] 48-3369
Evaluation problems of Russian gas pipeline constructions' resource. Kharionovskiĭ, V.V., [1994,eng] 48-3025
Experiment in analyzing the effect of local factors on the distribution of snow cover in mountains. Severskiĭ, S.I., [1992,rus] 48-4465
Experimental and numerical analysis of floating ice beam impact forces against a sloped structure. Coutermarsh, B.A., [1994,eng] 48-5148
Failure mechanics criteria for field testing large-sized structures. Guliaev, V.P., [1990,rus] 48-50
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] 48-3379
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] 48-460
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Geophysical field area fraction estimation. Key, J.R., [1993,eng] 48-2161
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] 48-2443
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis. Nakano, Y., et al, [1994,eng] 48-3793
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskiĭ, A.B., et al, [1953,rus] 48-1290
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Heat transfer in translucent enclosed structures. Drozdov, V.A., et al, [1986,rus] 48-1288
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels. Makarova, I.P., et al, [1990,rus] 48-56
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Impact of nonstationary temperature effects on the stress state of integrated structures. Sobakin, A.A., et al, [1990,rus] 48-60
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Initial conditions of ice-structure interaction problem. Bekker, A.T., et al, [1994,eng] 48-3026
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] 48-1952
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] 48-520
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614

Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] 48-2342
Method of daily forecasting of wet avalanches under conditions in the central mountain zone of Zailiyskiy Alatau. Kolesnikov, E.I., [1992,rus] 48-4458
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements. Cherkasov, P.A., et al, [1992,rus] 48-4459
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] 48-417
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Negatively buoyant jet/plume with applications to snow plow exit flow behavior. Lindberg, W.R., et al, [1993,eng] 48-1173
New method to obtain 3-D Green's functions for anisotropic solids. Wang, C.Y., et al, [1993,eng] 48-5016
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] 48-384
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Practical elastic moduli for polycrystalline ice. Derradji-Aouat, A., et al, [1994,eng] 48-3014
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] 48-1322
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskii, V.D., et al, [1994,eng] 48-2805
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Relationship between the microstructure and mechanical properties of snow. Edens, M.Q., et al, [1993,eng] 48-1175
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] 48-68
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Small-angle light scattering by crystalline particles within clouds. Shifrin, K.S., et al, [1989,eng] 48-1474
Snow equation-of-state. Barthel, J.R., [1990,eng] 48-3614
Snow removal options based on inhabitant preferences. Miyakoshi, K., et al, [1993,eng] 48-2849
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskii, I.V., ed, [1992,rus] 48-4452
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Statistical detection of climate change. MacNeil, I.B., [1993,eng] 48-1798
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] 48-516
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] 48-1235
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskii, A.V., et al, [1989,rus] 48-310
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Thermophysical conditions of frozen soils with regard to their sagging after thawing. Gavril'ev, R.I., [1992,rus] 48-4803
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Use of steam-gas plants in Northern regions. Stepanov, I.R., [1992,rus] 48-4150
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] 48-313
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] 48-2392
Vortex flows near the sea ice edge. Marchenko, A.V., et al, [1993,eng] 48-4216
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] 48-1242
See [also]: Mathematical models; Statistical analysis; Stefan problem; Structural analysis; Thermal analysis

Anchor ice
See [also]: Bottom ice

Anchors
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117
Structures to protect river banks against ice erosion. Androshchuk, V.V., et al, [1992,eng] 48-5518

Andes
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] 48-3550

Anemometers
Road weather data collection instruments. Ueda, S., [1986,jpn] 48-257

Animals
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726
Beaufort Sea coastal fish studies: overview and bibliography. Harris, R.K., [1993,eng] 48-40
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717
Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea. Fomin, O.K., [1991,rus] 48-2533
Seasonal succession of zooplankton in the coastal zone of Eastern Murman. Druzhkov, N.V., et al, [1991,rus] 48-2532
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222

Anion exchange
See [also]: Ion exchange

Anisotropy
3-dimensional scattering functions of ice crystals and depolarization effects. Rockwitz, K.D., [1989,eng] 48-1473
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] 48-3250
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] 48-632
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Model for remote sensing of anisotropic layers. Nghiem, S.V., et al, [1993,eng] 48-2408
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] 48-2749
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
New method to obtain 3-D Green's functions for anisotropic solids. Wang, C.Y., et al, [1993,eng] 48-5016
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] 48-2085
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] 48-68
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Thickness and anisotropy of the ice-water interface. Beaglehole, D., et al, [1993,eng] 48-1671
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] 48-2392

Antarctica
34th Japanese Antarctic Research Expedition in 1992-1994. Sato, N., [1993,jpn] 48-2434
Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] 48-3435
Antarctic ozone hole: recent topics. Ito, T., [1993,jpn] 48-2436
Cooperation in Antarctica. Sarukhanian, E.I., [1992,eng] 48-730
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Dynamics of total ozone content in Antarctica. Radionov, V.F., et al, [1993,rus] 48-2485
Final report of Operation Deep Freeze '91 (1990-91). U.S. Naval Support Force Antarctica, [1991,eng] 48-1531
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
Operation Deep Freeze 92/93 end of season report. U.S. Naval Support Force Antarctica, [1993,eng] 48-1663
Photochemical mechanism of the spring anomaly in the stratospheric ozone in Antarctica. Deminov, I.G., [1993,rus] 48-2492
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] 48-1915
Report of summer team of the 33rd JARE, 1991-92. Sano, M., [1992,jpn] 48-2444
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656

—Achernar, Mount
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue. Faure, G., et al, [1992,eng] 48-2615

—Adelaide Island
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440

—Adélie Coast
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] 48-4671
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304

—Admiralty Bay
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539
Zooplankton changes during the year in Admiralty Bay (February 1990-January 1991). Men'shenina, L.L., et al, [1992,eng] 48-540

—Allan Hills
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Meteorite thermoluminescence and ice movement in the Elephant Moraine region. Benoit, P.H., et al, [1992,eng] 48-2616

—Amery Ice Shelf
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435

—Amundsen Sea
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812

—Amundsen-Scott Station
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange. Gruzdev, A.N., et al, [1992,eng] 48-3764

Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Atmospheric carbon dioxide and the ocean. Siegenthaler, U., et al, [1993,eng] 48-334
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] 48-3047
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Ice coring and drilling technologies developed by the Polar Ice Coring Office. Kelley, J.J., et al, [1994,eng] 48-5328
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] 48-2491
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Radiation amplification factors: improved formulation accounts for large increases in ultraviolet radiation associated with antarctic ozone depletion. Booth, C.R., et al, [1994,eng] 48-4382
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Safety in the operation of cryogenic systems at the South Pole. Francis, A., [1993,eng] 48-1358
Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] 48-2963
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] 48-1171
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329

—Ann, Cape
MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] 48-1058

—Antarctic Peninsula
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Anthropogenic lead in antarctic sea water. Flegal, A.R., et al, [1993,eng] 48-332
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Contribution of Antarctic Peninsula ice to sea level rise. Morris, E.M., ed, [1992,eng] 48-779
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
Estimating ice-sheet response to climate change. Hindmarsh, R.C.A., [1992,eng] 48-784
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] 48-2618
Global climate models and Antarctica. Connolley, W.M., [1992,eng] 48-783
Ice shelves on the Antarctic Peninsula: changing climate and sea level. Vaughan, D.G., [1992,eng] 48-785
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Seabirds and fur seals near the Antarctic Peninsula in winter 1986. Whitehouse, M.J., et al, [1994,eng] 48-5153
Sediment descriptions, Bransfield Strait 1986-1987. Bryan, J.R., ed, et al, [1993,eng] 48-3816
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Spatial temperature and accumulation rate variations in the Antarctic Peninsula. Peel, D.A., [1992,eng] 48-781
Surface mass balance of the Antarctic Peninsula ice sheet. Frolich, R.M., [1992,eng] 48-780
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Transport of radon between South America and the Antarctic Peninsula. Pereira, E.B., et al, [1993,eng] 48-4539

—Arctowski Station
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537

—Asuka Station
Borehole drilling for sewage disposal at Asuka Station, East Antarctica. Ishizawa, K., et al, [1994,eng] 48-5347
Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] 48-1182
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] 48-1183
Snowdrifts and the differential settlement of buildings (1). Yamanashi, M., et al, [1993,jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2). Hanuki, T., et al, [1993,jpn] 48-2001

—Bailey Ice Stream
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] 48-251

—Beethoven Peninsula
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] 48-2618

—Bellingshausen Sea
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] 48-4540
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] 48-3476
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition. Bidigare, R.R., et al, [1992,eng] 48-5095
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] 48-620

—Bellingshausen Station
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739

—Bonney, Lake
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] 48-4386
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329

—Bransfield Strait
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Sediment descriptions, Bransfield Strait 1986-1987. Bryan, J.R., ed, et al, [1993,eng] 48-3816

—Brialmont Cove
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918

—Brunt Ice Shelf
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232

—Bunger Hills
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739

—Byrd Glacier
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332

—Byrd Station
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915

—Casey Station
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Soils of Casey Station (Wilkes Land, Antarctica). Blume, H.P., et al, [1993,eng] 48-2281

—Cayley Glacier
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918

—Charlie, Dome
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443

—Comandante Ferraz Station
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537

—Cosmonaut Sea
Thermal structure of the Cosmonaut Polynya region in the Antarctic. Takizawa, T., et al, [1993,eng] 48-1059

—Davis Station
Snowdrifting simulation around a Davis Station workshop. Smedley, D.J., et al, [1993,eng] 48-2911

—Dee Island
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537

—Dolleman Island
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002

—Drygalski Ice Tongue
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Basal melting of antarctic ice shelves. Minale, M., et al, [1993,eng] 48-2410

—Dumont d'Urville Station
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196

—Dyer Plateau
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

—East Antarctica
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] 48-3294
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] 48-1300

—East Ongul Island
Construction estimate of runway on East Ongul I. Umemura, T., et al, [1993,jpn] 48-1134

—Ekström Ice Shelf
Heavy metal traces in antarctic ice and snow. Heumann, K.G., [1993,eng] 48-2382
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] 48-5423

—Elephant Island
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537

—Ellsworth Mountains
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040

—Erebus Glacier Tongue
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756

—Ezcurra Inlet
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539

—Filchner Ice Shelf
Activities within the Aurora Programme—Field season 1991/92. Kristensen, M., [1992,eng] 48-252
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] 48-239
Bottom melting on FRIS: results from different methods. Grosfeld, K., et al, [1992,eng] 48-237
Circulation and water mass modification in the Weddell Sea. Fahrbach, E., [1992,eng] 48-235
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] 48-11
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery. Sievers, J., et al, [1991,eng] 48-2
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Filchner-Ronne Ice Shelf programme, Report No.5 (1991). Miller, H., ed, et al, [1991,eng] 48-1
Filchner-Ronne Ice Shelf programme, Report No.6 (1992). Oerter, H., ed, [1992,eng] 48-233
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Interferometric SAR data analysis on Ronne Ice Shelf. Reinhold, A., et al, [1992,eng] 48-249
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf. Minikin, A., et al, [1991,eng] 48-5
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
New results of structural investigations in the central part of the FRIS. Blindow, N., et al, [1992,eng] 48-236
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] 48-251
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] 48-9
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K., [1993,ger] 48-1113
Thematic maps of Filchner-Ronne Ice Shelf. Vaughan, D.G., et al, [1991,eng] 48-3

Trigonometric leveling 1992 on Ronne Ice Shelf. Karsten, A., et al. [1992,eng] 48-245
—Fildes Peninsula
Mass movement in the Great Wall Station area, Antarctica. Zhu, C., et al, [1992,eng] 48-78
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] 48-1515
—Fimbul Ice Shelf
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
—Fleming, Mount
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] 48-2624
—Fryxell, Lake
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake. Smith, R.L., et al, [1993,eng] 48-1664
Phytoplankton population dynamics in Lake Fryxell. Spaulding, S.A., et al, [1994,eng] 48-4813
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329
—Gamburtsev Subglacial Mountains
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] 48-4982
—Georg von Neumayer Station
Construction of the new Neumayer Station in Antarctica. Enss, D., [1992,ger] 48-3243
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] 48-1818
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
—George VI Ice Shelf
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] 48-10
—Great Wall Station
Frost physical weathering at the Great Wall Station. Cui, Z.J., et al, [1992,eng] 48-79
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] 48-364
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
—Greenwich Island
^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
—Halley Station
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] 48-2491
—Hemmen Ice Rise
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
—Ingrid Christensen Coast
Snowdrifting simulation around a Davis Station workshop. Smedley, D.J., et al, [1993,eng] 48-2911
—James Ross Island
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
—Jane Col
Microalgae distribution on Signy I. Davey, M.C., et al, [1993,eng] 48-1359
—King George Island
^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
BZXJ super light ice core drill. Zhu, G.C., et al, [1994,eng] 48-5334
Concentration of soluble impurities in Collins Ice Cap, King George I. Han, J.K., et al, [1993,chi] 48-2028
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] 48-740
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Halogenated hydrocarbons in polar macroalgae. Laturnus, F., [1993,ger] 48-2243
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] 48-507
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539
Verification of extrusive volcanism in an ice core from King George I. Dai, F.N., et al, [1993,chi] 48-1944
—King Sejong Station
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] 48-5210
—Kraul Mountains
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
—Lambert Glacier
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
—Langhovde Glacier
Glacier-generated ground motions at Bomi, southeastern Tibet. Akamatsu, J., et al, [1993,eng] 48-2754
—Langhovde Hills
Site of Special Scientific Interest, Antarctica. Kanda, H., [1992,jpn] 48-2446
—Larsen Ice Shelf
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342
—Law Dome
Technical aspects of deep ice drilling on Law Dome. Morgan, V., et al, [1994,eng] 48-5333
—Lazarev Bay
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
—Lazarev Ice Shelf
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas. Hain, S., et al, [1994,eng] 48-3039
—Livingston Island
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
—Lützow-Holm Bay
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] 48-1058
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-[illegible]5
—Marble Point
Visual assessment of environmental effect of fieldwork on ice free areas. Campbell, I.B., et al, [1993,eng] 48-899
—Marie Byrd Land
Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] 48-2621
Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al, [1992,eng] 48-2622
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] 48-2620
—Mawson Station
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] 48-230
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] 48-229
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] 48-4380
—McMurdo Dry Valleys
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] 48-3044
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] 48-2624
—McMurdo Ice Shelf
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] 48-3038
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
—McMurdo Sound
Drilling options for the Cape Roberts Project. Pyne, A.R., et al, [1992,eng] 48-2321
Fast ice behavior, Cape Roberts area. Pyne, A.R., [1992,eng] 48-2320
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Ice thickness variability of the McMurdo Sound landfast ice runway. Morris, K., et al, [1992,eng] 48-3768
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] 48-3819
Release of an ice-active substance by antarctic sea ice diatoms. Raymond, J.A., et al, [1994,eng] 48-3043
Sea ice and open-water plankton carbon isotopic composition. Dunbar, R.B., et al, [1992,eng] 48-3767
Spring biochemical composition of sea ice diatoms in McMurdo Sound. Nichols, D.S., et al, [1993,eng] 48-46
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389
Under-ice movements and the sensory basis of hole finding by ringed and Weddell seals. Wartzok, D., et al, [1992,eng] 48-542
—McMurdo Station
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] 48-4014
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] 48-3385
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] 48-3733
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] 48-4013
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] 48-1171
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] 48-4386
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329
—Mirnyy Station
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Metal and alloy corrosion at Mirnyy Station. Mikhailov, A.A., et al, [1993,eng] 48-2312
—Mizuho Plateau
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Thinning rate of ice sheet on Mizuho Plateau. Toh, H., et al, [1992,eng] 48-919
—Mizuho Station
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] 48-5354
Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al, [1994,eng] 48-4766
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] 48-202
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Thermal ice core drilling to 700 m depth at Mizuho Station, East Antarctica. Narita, H., et al, [1994,eng] 48-5343
—Molodezhnaya Station
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739
—Murphy, Mount
Geology of Mount Murphy volcano. LeMasurier, W.E., et al, [1994,eng] 48-3299
—Nelson Island
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
—Novolazarevskaya Station
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739
—Ober-See, Lake
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] 48-5311
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
—Ongul Strait
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] 48-2834
—Palmer Archipelago
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
—Palmer Station
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna*. Karentz, D., et al, [1992,eng] 48-5096
Solar ultraviolet irradiance at Palmer Station, Antarctica. Frederick, J.E., et al, [1994,eng] 48-4383
—Pine Island Glacier
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] 48-3439
—Porpoise Bay
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
—Potter Cove
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands). Klöser, H., et al, [1994,eng] 48-4983
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands). Klöser, H., et al, [1994,eng] 48-3042
—Potter Peninsula
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486

Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482
—Priestley Glacier
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542
—Prydz Bay
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632
Glacigenic sediments related to the glacial history of Prydz Bay. Solheim, A., et al, [1991,eng] 48-3631
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
—Queen Mau l Land
Antarctic .an scape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Borehole logging device at Dome F, Antarctica. Naruse, R., et al, [1994,eng] 48-5351
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Drilling fluid for Dome F project in Antarctica. Fujita, S., et al, [1994,eng] 48-5361
Ice core processing at Dome F, Antarctica. Shoji, H., et al, [1994,eng] 48-5355
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] 48-5311
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296
Patterns of snow accumulation and O-18 in Queen Maud Land. Isaksson, E., [1991,eng] 48-1112
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
—Resolute Station
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange. Gruzdev, A.N., et al, [1992,eng] 48-3764
—Roberts, Cape
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report. Barrett, P.J., ed, et al, [1992,eng] 48-2319
Drilling options for the Cape Roberts Project. Pyne, A.R., et al, [1992,eng] 48-2321
Environmental impact assessment, Cape Roberts Project. Keys, J.R., [1992,eng] 48-2323
Logistics options for the Cape Roberts Project. Macfarlane, M., [1992,eng] 48-2322
Management plan for the Cape Roberts Project. Davey, F.J., [1992,eng] 48-2324
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
—Ronne Ice Shelf
Activities within the Aurora Programme—Field season 1991/92. Kristensen, M., [1992,eng] 48-252
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] 48-239
Bottom melting on FRIS: results from different methods. Grosfeld, K., et al, [1992,eng] 48-237
Circulation and water mass modification in the Weddell Sea. Fahrbach, E., [1992,eng] 48-235
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] 48-11
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Digital coastline of Filchner-Ronne-Sche fe's: interpretation of high quality satellite imagery. Sievers, J., et al, [1991,eng] 48-2
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Filchner-Ronne Ice Shelf programme, Report No.5 (1991). Miller, H., ed, et al, [1991,eng] 48-1
Filchner-Ronne Ice Shelf programme, Report No.6 (1992). Oerter, H., ed, [1992,eng] 48-233
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Heavy metal traces in antarctic ice and snow. Heumann, K.G., [1993,eng] 48-2382
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] 48-10
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Interferometric SAR data analysis on Ronne Ice Shelf. Reinhold, A., et al, [1992,eng] 48-249
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf. Minikin, A., et al, [1991,eng] 48-5
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
New results of structural investigations in the central part of the FRIS. Blindow, N., et al, [1992,eng] 48-236
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Properties of marine ice, a new ice type. Moore, J.C., et al, [1994,eng] 48-3303
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] 48-251
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] 48-9
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K., [1993,ger] 48-1113
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Thematic maps of Filchner-Ronne Ice Shelf. Vaughan, D.G., et al, [1991,eng] 48-3
Trigonometric leveling 1992 on Ronne Ice Shelf. Karsten, A., et al, [1992,eng] 48-245
—Ross Ice Shelf
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Stopping an ice stream. Walker, G., [1993,eng] 48-774
—Ross Sea
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report. Barrett, P.J., ed, et al, [1992,eng] 48-2319
Biennial report 1991/92. Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials, [1993,ger] 48-3646
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines. De Veaux, R.D., et al, [1993,eng] 48-2244
Physical properties and structure of a single ice floe. Danielson, A., et al, [1992,eng] 48-3769
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
—Rutford Ice Stream
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] 48-3445
Monitoring the motion of an antarctic ice stream. Goldstein, R.M., et al, [1993,eng] 48-1669
—SANAE Station
Trends in total ozone over southern African stations between 1979 and 1991. Kalicharran, S., et al, [1993,eng] 48-4390
—Schirmacher Ponds
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] 48-2552
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
—Scott Base
Comparative antarctic ozone spectrophotometry. Nichol, S.E., et al, [1993,eng] 48-1360
—Seymour Island
Report on permafrost study at Isla Marambio (Seymour Island). Fukuda, M., et al, [1993,jpn] 48-2433
—Shackleton Range
Biennial report 1991/92. Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials, [1993,ger] 48-3646
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
—Shirase Glacier
Disintegrating ice front of Shirase Glacier, East Antarctica. Nishio, F., et al, [1993,eng] 48-1061
—Shirreff, Cape
Geomorphology of Cape Shirreff, Livingston I. Vilaplana, J.M., et al, [1993,spa] 48-4688
—Showa Station
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] 48-3047
Construction material for the new central building at Showa Station. Hannuki, T., et al, [1993,jpn] 48-2877
Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al, [1994,eng] 48-4766
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Icequakes recorded at Syowa Station, Antarctica. Kaminuma, K., et al, [1993,eng] 48-3278
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] 48-2491
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] 48-1183
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] 48-1071
Report of wintering team of JARE-33 in 1991-1993. Fukuchi, M., [1993,jpn] 48-2438
Report of wintering team of the 32nd JARE, 1990-92. Fujii, Y., [1992,jpn] 48-2445
Total ozone related to stratospheric temperature over Showa Station. Chubachi, S., [1993,eng] 48-593
Variations of tropospheric ozone concentration at Syowa Station. Aoki, S., [1993,jpn] 48-2442
Workshop on study of polar atmosphere and cryosphere, report. Kanzawa, H., [1993,jpn] 48-1185
—Signy Island
Microalgae distribution on Signy I. Davey, M.C., et al, [1993,eng] 48-1359
—Siple Coast
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] 48-3574
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
—Siple Station
Atmospheric carbon dioxide and the ocean. Siegenthaler, U., et al, [1993,eng] 48-334
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
—Sør Rondane Mountains
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298
Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] 48-920

Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] 48-2755
—South Orkney Islands
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
—South Sandwich Islands
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153
—South Shetland Islands
Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering. Hall, K.J., [1993,eng] 48-390
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
—Taylor Glacier
Glacier geophysical studies for an ice-core site at Taylor Dome: year two. Morse, D.L., et al, [1992,eng] 48-2627
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Taylor Dome ice-core study. Grootes, P.M., et al, [1992,eng] 48-2626
—Taylor Valley
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105
—Terra Nova Bay
Activity of Be-7 and Pb-210 in snow samples at Terra Nova Bay-Antarctica: preliminary results. Bettoli, M.G., et al, [1993,eng] 48-4541
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Evaluation of the dynamic parameters of Strandline Glacier. Baroni, C., et al, [1992,ita] 48-3287
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991). Tubertini, O., et al, [1993,eng] 48-4534
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] 48-2139
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Remote sensing analysis of Victoria Land ice shelves and ice tongues. Frezzotti, M., [1992,ita] 48-3288
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] 48-5031
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542
—Terra Nova Bay Station
Limnological research in Terra Nova Bay area. Guilizzoni, P., et al, [1992,eng] 48-4767
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
—Thwaites Glacier
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
—Tourmaline Plateau
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542
—Transantarctic Mountains
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Glacial geology of Central and North Victoria Land, Antarctica. Verbers, A.L.L.M., et al, [1992,eng] 48-741
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
—Unter-See, Lake
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] 48-5311
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
—Vestfold Hills
Changes in the Vestfold Hills ice boundary. Gore, D.B., [1993,eng] 48-3247
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
—Victoria Land
Biennial report 1991/92. Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials, [1993,ger] 48-3646
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
Radar ice thickness measurements in north Victoria Land. Druivenga, G., et al, [1993,eng] 48-2708
—Vostok Station
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739
Air content of ice deposits near Vostok Station. Lipenkov, V.IA., et al, [1993,rus] 48-3567
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Directional drilling in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-5342
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Firn chemistry at Vostok Station. Bender, M.L., et al, [1994,eng] 48-4218
Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] 48-4692
KEMS-112 electromechanical ice core drill. Kudriashov, B.B., et al, [1994,eng] 48-5340
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
Microorganism numbers in the deep layer of the central antarctic ice-sheet. Abyzov, S.S., et al, [1993,eng] 48-1666
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] 48-4204
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Surface energy of air-hydrate crystals in Vostok ice core. Uchida, T., et al, [1993,eng] 48-1863
Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] 48-2876
—Vostok Subglacial Highlands
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] 48-3589
—Weddell Sea
Ammonium regeneration in the Scotia-Weddell Confluence area during Spring 1988. Goeyens, L., et al, [1991,eng] 48-3736
Anthropogenic lead in antarctic sea water. Flegal, A.R., et al, [1993,eng] 48-332
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Atmospheric sciences on Ice Station Weddell. Andreas, E.L., et al, [1992,eng] 48-3780
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] 48-239
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] 48-4212
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Charting the bathymetry of Weddell Sea, Antarctica. Hinze, H., [1994,eng] 48-5424
Circulation and water mass formation in the Weddell Sea. Fahrbach, E., [1993,ger] 48-767
Circulation and water mass modification in the Weddell Sea. Fahrbach, E., [1992,eng] 48-235
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] 48-1347
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Distribution of antarctic diatoms in the Weddell Sea during austral winter. Moisan, T.A., et al, [1993,eng] 48-3735
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas. Hain, S., et al, [1994,eng] 48-3039
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice dynamics at Ice Station Weddell 1: I. Part 1. Ackley, S.F., et al, [1992,eng] 48-3778
Ice observations in the western Weddell Sea. Darling, M.N., et al, [1992,eng] 48-3772
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] 48-3781
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Ice-core studies in the western Weddell Sea. Gow, A.J., et al, [1992,eng] 48-3771
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] 48-1007
Life cycle of a calanoid copepod in the Weddell Sea. Kurbjeweit, F., et al, [1993,eng] 48-594
Life in the cracks of antarctic sea ice. Schminke, H.K., et al, [1993,eng] 48-1665
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica. IUrganov, L.M., [1993,rus] 48-2488
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834
Microbial network of the marginal ice zone in the Weddell Sea. Lancelot, C., et al, [1993,eng] 48-2136
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Microbial response to experimental sea ice formation. Grossmann, S., et al, [1993,eng] 48-2412
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Models of boundary value problems pertaining to the Weddell Sea. Fettweis, M., et al, [1990,eng] 48-777
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452
Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al, [1993,eng] 48-1057
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Phytoplankton ice-edge blooms in the northwestern Weddell Sea. Lancelot, C., et al, [1993,eng] 48-596
Phytoplankton variations in Weddell Sea ice formation. Gleitz, M., et al, [1993,eng] 48-2411
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] 48-3926
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] 48-3774
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] 48-3301
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412
Regional current measurements in the western Weddell Sea. Muench, R.D., et al, [1992,eng] 48-3776
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] 48-3455
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al, [1992,eng] 48-3773
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Thraustochytrid protists in antarctic fast ice?. Riemann, F., et al, [1993,eng] 48-47
Turbulent mixing under drifting pack ice in the Weddell Sea. McPhee, M.G., et al, [1994,eng] 48-2554
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079
—West Antarctica
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] 48-3575
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] 48-2286
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] 48-3441
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
New views for antarctic glaciology. Bindschadler, R.A., [1993,eng] 48-772
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] 48-2619
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] 48-4388

Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582
—Wilkes Land
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] 48-4037
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
—Wilkins Ice Shelf
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] 48-11
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] 48-1325
—Williams Field
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] 48-3385
—Windmill Islands
New alga of red snow in the Windmill Is. region. Ling, H.U., et al, [1993,eng] 48-770
—Wood Bay
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542
—Wordie Ice Shelf
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
—Wright Valley
Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] 48-3293
Minor expansion of alpine glaciers in Wright Valley, Antarctica. Hall, B.L., et al, [1992,eng] 48-2625
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
—Zhongshan Station
1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514

Antennas
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] 48-3697
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] 48-3964
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
Prediction of ice loads on a mast using general weather data. Sundin, E., [1994,eng] 48-5573
Protection of antennas on telecommunication masts and towers for atmospheric icing. Stöttrup-Andersen, U., [1993,eng] 48-852
Study on snow attaching to the TACAN antenna. Kuwahara, Y., et al, [1994,eng] 48-4215

Antifreezes
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] 48-4659
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] 48-2236
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Ice and snow melt. Greenwald, S., [1986,eng] 48-4274
Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] 48-4897
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] 48-2855
Interaction of hydrophilic liquid with ice. Nagornov, O.V., et al, [1993,eng] 48-875
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
New course in management of cold regions construction. Bennett, F.L., [1993,eng] 48-4935
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture. Wood, T.B., et al, [1994,eng] 48-3353
Synthetic diesel oil for use in cold temperatures. Zheng, C., [1993,eng] 48-5524
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954

Antiicing additives
See [also]: Chemical ice prevention

Arctic clothing
See [also]: Clothing

Arctic deserts
See [also]: Deserts

Arctic ice islands
See [also]: Ice islands

Arctic landscapes
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929
Analysis of a microzoral sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Analysis of Upper Kolyma Highland lichen flora. Kotlov, IU.V., [1993,rus] 48-4224
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] 48-944
Arctic coastal ecosystems. Bliss, L.C., [1993,eng] 48-1123
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632
Building the DEW line. Walker, C.W., [1957,eng] 48-289
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Caryopteris mongholica (Verbenaceae)—rare species of Siberian flora: its biology and introduction. Semenova, G.P., [1993,rus] 48-1631
Classification of meadow communities of the tundra zone on the Taymyr Peninsula: the *Pediculari verticillatae-Astragaletum arctici* association. Zanokha, L.L., [1993,rus] 48-1643
Climate change—its possible impact on the environment and the people of northern regions. Roots, F., [1992,eng] 48-2037
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Comparative characteristics of the flora in the vicinity of Penkigney Bay and neighboring territories. Sekretareva, N.A., [1993,rus] 48-4223
Construction on the DEW line. Cheever, M.S., [1957,eng] 48-291
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
DEW line's construction seasons. Cheever, M.S., [1957,eng] 48-288
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] 48-2918
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] 48-451
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] 48-73
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [19[illegible]3,eng] 48-5388
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Flora of Bolshevik Island (Severnaya Zemlya archipelago). Safronova, I.N., [1993,rus] 48-1633
Flora of Siberia. Volume 5: Salicaceae—Amaranthaceae. Krasnoborov, I.M., ed, et al, [1992,rus] 48-3722
Flora of the Losyanka River valley (Western Chukotka). Plieva, T.V., [1993,rus] 48-1642
Flora of the lower reaches of the Yana River (Northern Yakutia). Petrovskiĭ, V.V., [1992,rus] 48-1628
Floristic findings in the Stanovo Nagor'e (Eastern Siberia). Chechetkina, L.G., [1993,rus] 48-1636
Flowering phenology in tundra plants. Molau, U., [1993,eng] 48-2423
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] 48-2036
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] 48-2030
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] 48-2209
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] 48-2883
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003
Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67
Liverworts of Chukotka. Afonina, O.M., et al, [1993,rus] 48-1641
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] 48-3509
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] 48-4828
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] 48-633
New species of the genus *Aquilegia* (Ranunculaceae) from Eastern Siberia. Vasil'eva, I.M., [1992,rus] 48-1626
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] 48-2374
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
North Slope Borough's experiences with incineration. Thomas, J.E., et al, [1989,eng] 48-4136
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] 48-942
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996

Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Protected species of vascular plants in the Komsomol'sk reservation (Russian Far East). Van, V.M., [1993,rus] 48-1638
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Second instance of *Populus balsamifera* (Salicaceae) in the eastern part of the Chukotskiy Peninsula. Katenin, A.E., [1993,rus] 48-1646
Second instance of *Viola incisa* (Violaceae) in Central Siberia. Ivanova, M.M., et al, [1993,rus] 48-1635
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Seed survival in a high alpine block field. Moen, J., [1993,eng] 48-938
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Siting the DEW line radar stations. Brannian, J.D., [1957,eng] 48-290
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Species composition of the golden algae *(Chrysophyta)* from the Ob' River. Naumenko, IU.V., [1992,rus] 48-1627
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting. Kholod, S.S., [1993,rus] 48-4226
Supplements and emendations to the list of local flora in the vicinity of the Amguema Bridge (Chukotskiy Peninsula). Kucherov, I.B., [1993,rus] 48-1637
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Synopsis of the species of the subgenus *Scapiflorae* of the genus *Campanula* (Campanulaceae). Oganesian, M.E., [1993,rus] 48-1645
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula. Rebristaia, O.V., et al, [1993,rus] 48-1644
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] 48-72
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Two new lichen species found in Taymyr Peninsula. Zhurbenko, M.P., et al, [1993,eng] 48-1634
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] 48-410
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] 48-3609
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] 48-2416

Arctic Ocean
^{228}RA as a tracer for shelf water in the Arctic Ocean. Van der Loeff, M.M.R., et al, [1993,eng] 48-4544
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Arctic Ocean gravity field derived from ERS-1 satellite altimetry. Laxon, S., et al, [1994,eng] 48-5107
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}PA. Scholten, J.C., et al, [1993,eng] 48-4545
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean. Nikitin, A.I., et al, [1993,eng] 48-4524
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
International Arctic Buoy Project.[1993,eng] 48-3320
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Last deglaciation event in the eastern central Arctic Ocean. Stein, R., et al, [1994,eng] 48-3737
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] 48-1913
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] 48-4843
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Radiometric acquisition of sea ice surface temperature. Maslanik, J.A., et al, [1993,eng] 48-1351
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] 48-3319
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] 48-541
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] 48-2347
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean. Cochran, J.K., et al, [1993,eng] 48-4543
Water masses and circulation in the Eurasian Basin. Anderson, L.G., et al, [1994,eng] 48-4222

Arctic regions
See [also]: Polar regions

Argentina
—Patagonia
Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina. Trombotto, D., et al, [1993,eng] 48-5240
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972

Armenia
—Spitak
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824

Artesian water
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517

Artificial freezing
Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Compacting and freeze concentration of radioactive wastes. Husseiny, A.A., [1991,eng] 48-2229
Consolidation of deep layer frozen soils in triaxial tests. Li, K., et al, [1993,eng] 48-5222
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Depth consolidation of frozen soils in triaxial tests. Li, K., et al, [1993,chi] 48-4497
Destruction and rehabilitation of shaft lining in frozen shaft. Wang, C.S., et al, [1993,chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft. Wang, C.S., et al, [1993,eng] 48-5243
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] 48-1400
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] 48-486
Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] 48-1416
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Freezing as a means of preserving samples in soil respiration studies. Ritz, K., et al, [1989,eng] 48-3414
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Influence of pore characteristic on deformation during material freezing. Wang, J.C., et al, [1993,chi] 48-1432
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] 48-477
Interaction of particles and ice-water interfaces during bulk freezing. Lipp, G., et al, [1992,eng] 48-3079
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Mechanical freezing of alum sludge. Martel, C.J., [1994,eng] 48-5376
Method of forming soil base on frozen ground. Petrov, B.G., et al, [1992,eng] 48-5512
Method of repairing cracks in ice mass. Nazarov, V.D., et al, [1992,eng] 48-5529
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] 48-384
Preliminary study on the freezing point in soil. Cui, G.X., et al, [1993,eng] 48-5200
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] 48-1430
Procedure for protecting soils from water erosion. Chmil, A.N., [1992,eng] 48-4070
Process and apparatus for cleaning contaminated soil. Rebhan, D., [1990,eng] 48-2264
Pump freeze corer for recent sediments. Renberg, I., et al, [1993,eng] 48-1527
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Study of the mechanical properties of spray ice. Instanes, A., et al, [1994,eng] 48-5564
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] 48-3959
Thermal control of freezing processes with predetermined rate of freezing. Lin, S., [1993,eng] 48-897
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] 48-860
Twin rinse columns for freeze concentration of rinsable concentrates. Heiland, W.K., et al, [1991,eng] 48-2224
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973

Artificial ice
Delay of arctic shoreline erosion by artificial spray ice. Sackinger, W.M., et al, [1994,eng] 48-3974
Development of a large-volume snow to ice converter. Miyagawa, M., [1988,jpn] 48-661
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] 48-4296
Hi-E model ice—improving the elastic modulus of columnar model ice. Spencer, D., et al, [1994,eng] 48-5580
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
Ice pellets and decontamination. Manificat, A., et al, [1993,fre] 48-3280
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] 48-1039
Model ice developed at the HSVA ice tank. Evers, K.U., et al, [1993,eng] 48-173
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] 48-1559
On the creep tests of ice dome model in a low temperature laboratory. Tsukui, K., et al, [1993,jpn] 48-2002

Polarimetric radar measurements of artificial sea ice during CRRELEX '88. Onstott, R.G., [1990,eng] 48-4747
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961
Reciprocating snow to ice converter; density of the input snow. Kobiyama, M., et al, [1993,jpn] 48-3174
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] 48-1560
Snow to ice converter. Narita, M., [1988,jpn] 48-662
Study of the mechanical properties of spray ice. Instanes, A., et al, [1994,eng] 48-5564
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174
See [also]: Ice makers

Artificial islands
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679

Artificial melting
Characteristics of heat exchanger for melting of piled snow. Aoki, K., et al, [1993,eng] 48-876
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] 48-525
Control device for a snow melter. Taguchi, T., [1986,jpn] 48-37
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] 48-1264
Development of snow melting works using sewage treatment water. Toyama Prefecture Civil Engineering Department, [1988,jpn] 48-660
Development trends in snow melting devices using heat pumps. Shinojima, K., [1988,jpn] 48-658
Electric-heater roof snow melter. Yoshida, N., et al, [1993,jpn] 48-1986
Experiment on using overflow lines for snow melting. Kobayashi, T., et al, [1988,jpn] 48-663
Experimental study on melting process of ice containing conductive copper solids. Hirasawa, Y., et al, [1993,eng] 48-894
Experimental study on roof snow melting system by bar-shaped carbon heater. Sano, O., et al, [1993,jpn] 48-1988
Experiments on snow melting by sewage treatment water. Imai, T., et al, [1987,jpn] 48-551
Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] 48-1994
Horn shaped snow melting device. Mitsubishi Electric Corporation, [1993,eng] 48-4437
Ice and snow melt. Greenwald, S., [1986,eng] 48-4274
Ice block forming device, using heat carrier stream cutting. Krivoshchekov, IU.V., et al, [1992,eng] 48-5511
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] 48-567
Interaction of hydrophilic liquid with ice. Nagornov, O.V., et al, [1993,eng] 48-875
Laser ice removal system. Vega, R., et al, [1990,eng] 48-2197
Piping apparatus for melting snow and ice. Ohashi, K., [1989,eng] 48-4080
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Recent trends in snow melting facilities in the Hokuriku Region. Kuwahara, T., [1989,jpn] 48-711
Road freezing countermeasures. Onoda, M., [1987,jpn] 48-548
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] 48-703
Road snow melting by solar energy and heat pipes. Konagai, N., [1986,jpn] 48-264
Roads in snowy and cold regions and bypass-type snow melting and removal drains. Sato, K., [1988,jpn] 48-569
Roof snow sliding system with electric heater. Harada, H., et al, [1993,jpn] 48-1987
Simple compact snow melter. Saito, H., [1986,jpn] 48-26
Snow and ice melting system for road or exposed surface. Nagai, Y., et al, [1993,eng] 48-4436
Snow melting heater mats. Bayless, R.E., et al, [1990,eng] 48-2263
Snow melting measures in Asahikawa City. Ito, H., et al, [1988,jpn] 48-566
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [1993,eng] 48-1195
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles. Higashiyama, Y., et al, [1993,jpn] 48-1989
Study on snow-water mixture flow in snow drain. Sasaki, M., et al, [1993,jpn] 48-1973
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] 48-568
See [also]: Artificial thawing

Artificial nucleation
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] 48-4717
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840
Ice-forming properties of organic reagents. IAtsimirskii, V.K., et al, [1989,eng] 48-3748

Artificial precipitation
See [also]: Cloud seeding; Weather modification

Artificial satellites
See [also]: Spacecraft

Artificial snow
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] 48-3031
Snow making nozzle assembly. Humphrey, H., Jr., et al, [1990,eng] 48-2200
System for use in providing compressed air for snow making equipment. Sloan, M.D., [1989,eng] 48-4079
See [also]: Snow manufacturing

Artificial thawing
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Rock and frozen ground breaking device using heating elements. Kharitonov, M.A., et al, [1992,eng] 48-5533
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984
See [also]: Artificial melting

Ash
See [also]: Volcanic ash

Asphalt concretes
See [also]: Bituminous concretes

Asphalts
See [also]: Bitumens

Atlases
See [also]: Maps

Atmosphere
See [also]: Air masses; Atmospheric physics; Stratosphere

Atmospheric absorption
See [also]: Atmospheric attenuation

Atmospheric attenuation
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] 48-3046
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] 48-5502
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] 48-3730
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] 48-4037
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] 48-3296
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] 48-4013
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] 48-5491
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] 48-4700
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] 48-5119
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] 48-3731
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] 48-3045
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Report of a 1990 polar stratospheric aerosol cloud. Yue, G.K., et al, [1994,eng] 48-4442
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] 48-3146
Scattering of electromagnetic radiation by atmospheric ice crystals. Macke, A., [1991,ger] 48-4865
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503

Atmospheric boundary layer
1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] 48-3059
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] 48-3208
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] 48-4048
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Halocarbons in the arctic and antarctic atmosphere. Sturges, W.T., [1993,eng] 48-3053
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] 48-3061

Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] 48-2146
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] 48-3054
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica. IUrganov, L.M., [1993,rus] 48-2488
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] 48-3049
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] 48-3052
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] 48-3296
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Recent changes in arctic temperature inversions. Bradley, R.S., et al, [1993,eng] 48-1469
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Atmospheric circulation

Abstracts. International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993, [1993,eng] 48-796
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Air pollution and atmospheric environmental effects. Qiu, Q., et al, [1992,chi] 48-1485
Air pollution and the air purity conditions in Wudaoliang region. Wen, J., et al, [1992,chi] 48-1486
Air pollution on the Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1482
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] 48-287
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Antarctic sea-ice relationships with indices of the atmospheric circulation of the Southern Hemisphere. Carleton, A.M., [1989,eng] 48-1660
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] 48-1140
Atmospheric circulation and weather and climate background in the Wudaoliang region. Jiang [illegible], et al, [1992,chi] 48-1484
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-964
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Case study in forecasting the stratospheric vortex during EASOE. Carver, G.D., et al, [1994,eng] 48-5500
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1487
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
Climates of the world. Martyn, D., [1992,eng] 48-2709
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] 48-3674
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years. Putilina, N.M., et al, [1992,rus] 48-4470
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] 48-5441
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] 48-5439
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Effect of the equatorial Pacific on Okhotsk Sea ice. Tachibana, Y., et al, [1990,jpn] 48-4672
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] 48-4844
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Exploring the southern ocean response to climate change. Final report. Martinson, D.G., et al, [1993,eng] 48-3817
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] 48-3046
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Fluctuations of the atmospheric circulation and climate changeability of polar regions. Vanda, IU.A., et al, [1994,eng] 48-3849
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y. et al, [1994,eng] 48-5502
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] 48-3476
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505
Himalayas: a third polar region. Bahadur, J., [1993,eng] 48-2784
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] 48-3050
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] 48-629
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] 48-3680
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] 48-4595
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] 48-1495
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] 48-2139
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] 48-202
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] 48-2146
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] 48-1856
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] 48-3054
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica. IUrganov, L.M., [1993,rus] 48-2488
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] 48-3049
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] 48-630
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station. Gerber, L., et al, [1994,eng] 48-5460
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] 48-3037
North Atlantic atmospheric circulation and ice cover. Mayewski, P.A., et al, [1994,eng] 48-3244
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
Overview of large scale effects of seasonal snow cover. Li, P.J., [1993,chi] 48-4593
Ozone mixing in the antarctic polar vortex. Bowman, K.P., et al, [1993,eng] 48-965
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] 48-4132
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] 48-4725

Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] **48-3917**
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] **48-2786**
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] **48-608**
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] **48-1741**
Rapid descent of mesospheric air into the stratospheric polar vortex. Fisher, M., et al, [1993,eng] **48-627**
Record low total ozone during northern winters of 1992 and 1993. Bojkov, R.D., et al, [1993,eng] **48-301**
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] **48-2846**
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] **48-4446**
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] **48-5506**
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] **48-3190**
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] **48-2475**
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] **48-4617**
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] **48-3889**
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] **48-1483**
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] **48-5005**
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] **48-5132**
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] **48-2347**
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] **48-3893**
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] **48-3256**
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] **48-616**
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] **48-5495**
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] **48-5508**
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] **48-3128**
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] **48-3887**
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] **48-3542**
Springtime stratospheric water vapour in the southern hemisphere as measured by MLS. Harwood, R.S., et al, [1993,eng] **48-625**
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] **48-3898**
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] **48-624**
Stratospheric ozone depletion by ClONO2 photolysis. Toumi, R., et al, [1993,eng] **48-336**
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] **48-5449**
Study of the small ice cap instability in the presence of fluctuations. Lee, W.H., [1994,eng] **48-3551**
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] **48-198**
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] **48-2545**
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] **48-3073**
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] **48-5482**
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] **48-5492**
Transport of radon between South America and the Antarctic Peninsula. Pereira, E.B., et al, [1993,eng] **48-4539**
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] **48-4594**
Two-dimensional model of the stratosphere. 1. Ko, M.K.W., et al, [1993,eng] **48-3636**
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] **48-3161**
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] **48-313**
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] **48-3890**
Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] **48-5501**
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] **48-4571**
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] **48-5116**

Atmospheric composition

3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] **48-5504**
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] **48-2584**
Ab initio characterization of ClOOH: implications for atmospheric chemistry. Lee, T.J., et al, [1993,eng] **48-2316**
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] **48-4630**
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] **48-5472**
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] **48-5497**
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] **48-5451**
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] **48-3903**
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] **48-3902**
Air content of ice deposits near Vostok Station. Lipenkov, V.IA., et al, [1993,rus] **48-3567**
Air pollution and atmospheric environmental effects. Qiu, Q., et al, [1992,chi] **48-1485**
Air pollution and the air purity conditions in Wudaoliang region. Wen, J., et al, [1992,chi] **48-1486**
Air pollution on the Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] **48-1482**
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] **48-4611**
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] **48-5477**
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] **48-5483**
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] **48-1096**
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] **48-2637**
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] **48-5480**
Airborne studies of ocean-particle-cloud-interactions in the Arctic. Hobbs, P.V., [1993,eng] **48-2646**
Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] **48-5457**
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] **48-5138**
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] **48-287**
Antarctic ozone hole: recent topics. Ito, T., [1993,jpn] **48-2436**
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] **48-1100**
Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] **48-1755**
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] **48-3916**
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] **48-4618**
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] **48-4205**
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] **48-2327**
Arctic stratospheric chemistry—winter 1989-90. Fiedler, M., et al, [1993,eng] **48-950**
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] **48-948**
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] **48-3894**
Atmospheric carbon dioxide and the ocean. Siegenthaler, U., et al, [1993,eng] **48-334**
Atmospheric constituents in high alpine ice cores. Gäggeler, H., et al, [1994,eng] **48-2717**
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] **48-4629**
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] **48-2212**
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] **48-3891**
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] **48-4654**
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] **48-5466**
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] **48-5454**
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] **48-5471**
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] **48-2576**
Biogenic sulfur aerosol in the Arctic troposphere: 1. Contributions to total sulfate. Li, S.M., et al, [1993,eng] **48-3642**
Biogenic sulfur aerosol in the Arctic troposphere: 2. Trends and seasonal variations. Li, S.M., et al, [1993,eng] **48-3643**
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] **48-4623**
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] **48-963**
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] **48-4621**
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] **48-2590**
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] **48-5445**
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] **48-4633**
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] **48-1884**
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] **48-4620**
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] **48-4197**
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] **48-42**
Chemical depletion of ozone in the Arctic lower stratosphere during winter 1992-93. Manney, G.L., et al, [1994,eng] **48-5124**
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] **48-3059**
Chlorine threat to stratospheric ozone. Waters, J.W., [1993,eng] **48-2666**
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] **48-5494**
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] **48-4975**
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] **48-1487**
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] **48-3047**
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] **48-992**
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] **48-4608**
Comparative antarctic ozone spectrophotometry. Nichol, S.E., et al, [1993,eng] **48-1360**
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] **48-626**
Comparison of observed and modeled stratospheric water vapor. Mote, P.W., et al, [1993,eng] **48-636**
Concentration of soluble impurities in Collins Ice Cap, King George I. Han, J.K., et al, [1993,chi] **48-2028**
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] **48-230**
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] **48-229**
Condensed phase dynamics of OClO. Dunn, R.C., [1993,eng] **48-1025**
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] **48-3913**
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] **48-1233**
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] **48-5441**
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] **48-3900**
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] **48-1749**
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] **48-3133**
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] **48-3885**
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] **48-3886**
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] **48-3884**
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] **48-5487**
End of the ice age. Nisbet, E.G., [1990,eng] **48-1747**
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] **48-4624**
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] **48-4048**
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] **48-4844**
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] **48-4845**
Experimental study of growth and phase change of polar stratospheric cloud particles. Hallett, J., et al, [1992,eng] **48-3698**
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] **48-4634**
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] **48-3046**
Firn chemistry at Vostok Station. Bender, M.L., et al, [1994,eng] **48-4218**
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] **48-4606**
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] **48-5499**
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] **48-2049**
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] **48-5502**
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] **48-4485**
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS. López-Valverde, M.A., et al, [1993,eng] **48-4220**
Global climate. Kondrat'ev, K.IA., [1992,rus] **48-304**
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] **48-190**

Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] 48-3255
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] 48-5484
Halocarbons in the arctic and antarctic atmosphere. Sturges, W.T., [1993,eng] 48-3053
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] 48-3061
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] 48-5367
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] 48-3050
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] 48-2575
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] 48-2580
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] 48-5456
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] 48-5478
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443
Interferometer measurements of O_3, HNO_3 and $ClONO_2$ over the Arctic. Von Clarmann, T., et al, [1993,eng] 48-3640
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] 48-3680
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] 48-1495
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] 48-3543
Laboratory simulations of polar stratospheric clouds. Marti, J.J., [1994,eng] 48-3552
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] 48-1106
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Measurement of stratospheric NO_2 by ISAMS. Reburn, W.J., et al, [1993,eng] 48-4219
Measurements of ^7Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] 48-3054
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] 48-1818
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] 48-635
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Microwave sounding of antarctic stratospheric ozone content. Waters, J.W., et al, [1993,eng] 48-962
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] 48-630
Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] 48-5412
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station. Gerber, L., et al, [1994,eng] 48-5460
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Modeling CH_4 and CO budgets in the troposphere. Law, K.S., et al, [1993,eng] 48-2677
Modeling ozone and nitrogen budgets in the troposphere. Law, K.S., et al, [1993,eng] 48-2676
Modification of physical properties of natural obscurants. Hogan, A.W., [1993,eng] 48-3032
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] 48-3150
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] 48-2582
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] 48-3052
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
Numerical simulation of the ice age climate. Wang, H.J., et al, [1993,eng] 48-3221
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] 48-5448
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] 48-3145
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Organic acids and selected nitrogen species for ABLE-3. Talbot, R.W., [1991,eng] 48-4856
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] 48-3296
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] 48-2585
Ozone mixing in the antarctic polar vortex. Bowman, K.P., et al, [1993,eng] 48-965
Paleovariations of atmospheric composition in ancient ice core air bubbles. Semiletov, I.P., [1993,rus] 48-3566
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] 48-5490
Physical chemistry of the H2SO4/HNO3/H2O system. Molina, M.J., et al, [1993,eng] 48-330
Polar atmosphere nitrous oxide morphology during AASE II. Podolske, J.R., et al, [1993,eng] 48-2583
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] 48-2589
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] 48-3731
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7. Watanabe, O., ed, NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992, [1993,eng] 48-1862
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] 48-3045
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Rapid descent of mesospheric air into the stratospheric polar vortex. Fisher, M., et al, [1993,eng] 48-627
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Recent changes in arctic temperature inversions. Bradley, R.S., et al, [1993,eng] 48-1469
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Record low total ozone during northern winters of 1992 and 1993. Bojkov, R.D., et al, [1993,eng] 48-301
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] 48-5506
Report of a 1990 polar stratospheric aerosol cloud. Yue, G.K., et al, [1994,eng] 48-4442
Response of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] 48-1476
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] 48-2475
Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] 48-1710
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] 48-3146
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] 48-1483
Simulation of North Polar atmospheric chemistry. Douglass, A., et al, [1993,eng] 48-628
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] 48-2952
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887

Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] 48-3058
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] 48-5031
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] 48-3542
Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] 48-5453
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Spitsbergen atmospheric aerosols relat... to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Springtime stratospheric water vapour in the southern hemisphere as measured by MLS. Harwood, R.S., et al, [1993,eng] 48-625
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] 48-4067
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463
Stratospheric aerosol increase after Mt. Pinatubo eruption. Iwasaka, Y., et al, [1993,eng] 48-1868
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] 48-5485
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Stratospheric ozone and solar radiative climate forcing. Haigh, J.D., [1994,eng] 48-5323
Stratospheric ozone depletion by ClONO2 photolysis. Toumi, R., et al, [1993,eng] 48-336
Stratospheric ozone layer—an overview. Peter, T., [1994,eng] 48-2745
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] 48-5442
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] 48-5449
Study of ozone anomalies over the Molodezhnaya Station in the spring of 1990. Butko, A.I., et al, [1992,eng] 48-1243
Sulfate aerosols and polar stratospheric cloud formation. Tolbert, M.A., [1994,eng] 48-3734
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Synchronous changes in atmospheric CH4 and Greenland climate between 40 and 8 kyr bp. Chappellaz, J.A., et al, [1993,eng] 48-1668
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Theoretical support for the Airborne Antarctic Ozone Experiment. Final report. Hartmann, D.L., [1992,eng] 48-3818
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] 48-5482
Total ozone global field oscillations. Gruzdev, A.N., et al, [1992,eng] 48-2245
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] 48-5492
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462
Two-dimensional model of the stratosphere. 1. Ko, M.K.W., et al, [1993,eng] 48-3636
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] 48-3161
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772
Upper-atmosphere aerosols: properties and natural cycles. Turco, R.P., [1992,eng] 48-4860
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone. Tolbert, M.A., et al, [1993,eng] 48-592
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890
Variations of tropospheric ozone concentration at Syowa Station. Aoki, S., [1993,jpn] 48-2442
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] 48-4758
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] 48-4571

Atmospheric condensation
See [also]: Condensation

Atmospheric density
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] 48-287
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] 48-631
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] 48-190
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] 48-2575
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Major results from SAGE II. Poole, L.R., et al, [1993,eng] 48-3732
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] 48-3733
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] 48-2989
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] 48-5491
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] 48-5469
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] 48-2589
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450

Atmospheric disturbances
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] 48-3476
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] 48-4595
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Northern and southern hemispheric polar lows—a comparative study. Rasmussen, E.A., [1993,eng] 48-2101
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] 48-1960
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] 48-4132
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] 48-4725
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] 48-1425
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198

Atmospheric electricity
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050

Atmospheric humidity
See [also]: Humidity

Atmospheric physics
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] 48-2380
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] 48-1106
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] 48-3049
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] 48-340
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Spectroscopic detection of molecular hydrogen frozen in interstellar ices. Sandford, S.A., et al, [1993,eng] 48-769
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] 48-4594
Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] 48-5501

Atmospheric pollution
See [also]: Air pollution

Atmospheric pressure
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] **48-4850**
Antarctic automatic weather station data for the calendar year 1991. Keller, L.M., et al, [1993,eng] **48-1662**
Antarctic automatic weather station data for the calendar year 1992. Keller, L.M., et al, [1994,eng] **48-4131**
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986. Colony, R.L., et al, [1989,eng] **48-3333**
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] **48-964**
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] **48-1478**
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] **48-959**
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] **48-5318**
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] **48-3476**
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] **48-1606**
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] **48-1116**
International Arctic Buoy Program data report for 1 January 1992-31 December 1992. Colony, R.L., et al, [1993,eng] **48-3285**
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] **48-987**
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] **48-988**
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] **48-1960**
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] **48-4132**
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] **48-4725**
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] **48-200**
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] **48-4446**
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] **48-2459**
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] **48-226**
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] **48-5043**
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] **48-5132**
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] **48-2347**
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] **48-2845**
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] **48-2545**
Two-dimensional model of the stratosphere. 1. Ko, M.K.W., et al, [1993,eng] **48-3636**
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] **48-2125**
Winds at the North Pole. Johnson, M., et al, [1993,eng] **48-2218**

Attenuation
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] **48-4819**
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] **48-2004**
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] **48-2866**
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] **48-4064**
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1994,eng] **48-3457**
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] **48-5561**
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] **48-102..**
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., [illegible]a, [1984,eng] **48-3921**
Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] **48-1005**
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] **48-3223**
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] **48-496**
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] **48-3827**
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] **48-4690**
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] **48-3031**
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] **48-4645**
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] **48-3143**
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] **48-3142**
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] **48-3920**
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] **48-1051**
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] **48-1242**
See [also]: Atmospheric attenuation

Augers
Auger for self-propelled snow removing machine. Ogano, T., et al, [1990,eng] **48-2196**
Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] **48-3661**
Auger snowblower. O'Loughlin, H., [1989,eng] **48-4086**
Ice auger extractor for retrieving augers or similar devices from a bore hole. Walsh, M.R., [1990,eng] **48-2168**
Rapid deployment of camp facilities utilizing point-supported structures. Mimken, V.B., et al, [1994,eng] **48-5364**

Australia
Australian snowfields past and present. Galloway, R.W., [1986,eng] **48-203**
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] **48-204**
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] **48-207**

Austria
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] **48-3308**
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] **48-2127**
Avalanche report 1991/1992. Documentation and case studies. Ruhm, F., ed, [1993,ger] **48-765**
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] **48-3478**
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] **48-4113**
Glacial meteorology at the University of Innsbruck. Kuhn, M., [1990,ger] **48-3125**
Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley. Patzelt, G., [1977,ger] **48-3313**
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] **48-2785**
Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al, [1990,eng] **48-1580**
On the calculation of ice ablation. Dreiseitl, E., [1977,ger] **48-3312**
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991,ger] **48-3658**
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] **48-2715**
Results of a field test of six different ice warning systems. Scharsching, H., [1993,eng] **48-1204**
Statistics of the measurements of length of Austrian glaciers, 1960-1975. Patzelt, G., [1977,ger] **48-3314**
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] **48-3663**
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] **48-611**

—Alps
Glaciers of the Alps. Rott, H., et al, [1993,eng] **48-4028**
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] **48-1302**
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] **48-1306**
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] **48-4929**

—Hintereisferner
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] **48-1294**

—Oetzal Alps
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] **48-612**

—Pasterze Glacier
Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] **48-4928**

—Sonnblick
Glacier mass balance measurements on Wurtenkees in the Sonnblick region. Böhm, R., [1986,ger] **48-613**

—Sonnblick, Mount
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] **48-5138**
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] **48-4805**

Automatic weather stations
See [also]: Weather stations

Automation
See [also]: Computer applications

Automobiles
See [also]: Motor vehicles

Avalanche deposits
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] **48-2947**
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] **48-3233**
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] **48-3009**
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] **48-2821**
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] **48-2869**
Terrigenous sedimentation processes in seas and oceans. Lisitsyn, A.P., [1991,rus] **48-303**

Avalanche dynamics
See [also]: Avalanche mechanics

Avalanche engineering
Avalanche control technology: a growing industry in France. Penniman, D., [1990,eng] **48-2361**
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] **48-2127**
Basic experiments on avalanche retarding structures. Shimomura, C., et al, [1988,jpn] **48-587**
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] **48-4236**
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] **48-552**
Making the best of natural conditions, European and American snow countermeasures. Ishimoto, K., [1989,jpn] **48-712**
Snow avalanche protection program and structural design—case study of Maseguchi area. Fujisawa, K., [1994,eng] **48-4932**
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] **48-2818**
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] **48-5433**
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] **48-280**
Winter on five mountain roads. Umejima, M., [1988,jpn] **48-664**
See [also]: Snow fences

Avalanche erosion
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] **48-4369**
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] **48-4371**
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] **48-4370**

Avalanche forecasting
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] **48-2835**
Avalanche activity in Tuckerman Ravine. Boyne, H., [1994,eng] **48-3274**
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] **48-1783**
Avalanche forecasting in France. Pahaut, E., [1993,ita] **48-1131**
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] **48-2127**
Avalanche handbook. McClung, D.M., et al, [1993,eng] **48-1945**
Avalanche hazards and their weather patterns in the Tohoku District. Ito, T., et al, [1993,jpn] **48-1969**
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] **48-2839**
Avalanche safety for skiers & climbers. Daffern, T., [1992,eng] **48-1933**
Avalanches and meteorological conditions. Aoyama, K., [1988,jpn] **48-586**
Avalanches generated by snow and thunderstorms in Switzerland. Kerkmann, J., et al, [1993,ita] **48-1132**
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] **48-2394**
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] **48-2569**
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] **48-2826**
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] **48-2825**
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] **48-2860**
European scale of avalanche risk. Pahaut, E., [1993,fre] **48-1209**
Forecasting of direct-action avalanches in terms of snow accumulation rates. Endo, Y., [1993,jpn] **48-3175**
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] **48-5036**
Landslide hazards in Vermont. Baskerville, C.A., et al, [1993,eng] **48-3283**
Measurements during rain on snow. Conway, H., et al, [1994,eng] **48-3273**
Mechanical properties of snow. Navarre, J.P., [1993,ita] **48-1134**
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] **48-2829**
Method of daily forecasting of wet avalanches under conditions in the central mountain zone of Zailiyskiy Alatau. Kolesnikov, E.I., [1992,rus] **48-4458**
Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] **48-2861**
Models to improve comprehension of avalanche mechanics. Gubler, H., [1992,fre] **48-4047**
New unified scale for avalanche danger classification. Cagnati, A., [1993,ita] **48-1130**
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] **48-5171**
NX-LOG: introduction to an avalanche model. Bolognesi, R., [1993,fre] **48-1210**
Physical processes in snowpacks during rain or melt events. Conway, H., [1994,eng] **48-2698**
Prediction of avalanche hazardous slopes using topographic maps. Moishi, M., [1986,jpn] **48-33**
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] **48-2817**
Rutschblock precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] **48-3593**
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] **48-2865**

Simple photogrammetric survey methods for glaciology and erosion control. Waldhäusl, P., [1986,ger] 48-610
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] 48-2818
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Snow profile computer drafting package. Weir, P., [1994,eng] 48-4118
Snow sense: a guide to evaluating snow avalanche hazard. Fredston, J.A., et al, [1988,eng] 48-1957
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12

Avalanche formation
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Avalanche handbook. McClung, D.M., et al, [1993,eng] 48-1945
Avalanches and meteorological conditions. Aoyama, K., [1988,jpn] 48-586
Avalanches generated by snow and thunderstorms in Switzerland. Kerkmann, J., et al, [1993,ita] 48-1132
Dynamics of snow avalanches and mathematical models. Nohguchi, Y., [1992,jpn] 48-3166
Forecasting of direct-action avalanches in terms of snow accumulation rates. Endo, Y., [1993,jpn] 48-3175
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Large scale avalanche at the Hakuba snow patch occurred on May 4th, 1992. Terada, H., et al, [1993,jpn] 48-3178
Mechanical properties of snow. Navarre, J.P., [1993,ita] 48-1134
Models to improve comprehension of avalanche mechanics. Gubler, H., [1992,fre] 48-4047
Physical processes in snowpacks during rain or melt events. Conway, H., [1994,eng] 48-2698
Snow avalanche disaster of winter 1992 in southeastern Anatoliya, Türkiye. Gürer, I., [1993,eng] 48-766
Snow slab layers and stability: a summary of some recent research and experience. Jamieson, J.B., [1994,eng] 48-3271

Avalanche mechanics
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] 48-2835
Avalanche handbook. McClung, D.M., et al, [1993,eng] 48-1945
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
Dependence of coefficients of resistance to movement on avalanche parameters. Blagoveshchenskiĭ, V.P., [1992,rus] 48-4455
Dynamics of snow avalanches and mathematical models. Nohguchi, Y., [1992,jpn] 48-3166
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] 48-2860
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] 48-2399
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469
Models to improve comprehension of avalanche mechanics. Gubler, H., [1992,fre] 48-4047
Observations of the dynamic structure of snow avalanches. Nishimura, K., et al, [1993,eng] 48-2873
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] 48-2818
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] 48-4371
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847

Avalanche modeling
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] 48-2835
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] 48-2839
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Construction of distribution functions of the dynamic parameters of avalanches. Bozhinskiĭ, A.N., [1992,rus] 48-1397
Dependence of coefficients of resistance to movement on avalanche parameters. Blagoveshchenskiĭ, V.P., [1992,rus] 48-4455
Dynamics of snow avalanches and mathematical models. Nohguchi, Y., [1992,jpn] 48-3166
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Forecasting of direct-action avalanches in terms of snow accumulation rates. Endo, Y., [1993,jpn] 48-3175
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] 48-2399
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Models to improve comprehension of avalanche mechanics. Gubler, H., [1992,fre] 48-4047
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
NX-LOG: introduction to an avalanche model. Bolognesi, R., [1993,fre] 48-1210
Ping-pong avalanches. Nohguchi, Y., [1993,jpn] 48-3191
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869

Avalanche protection
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-4026
Warning system for snow avalanches. Terada, H., [1994,eng] 48-4933

Avalanche tracks
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] 48-2835
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] 48-2947
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] 48-2860
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
Large scale avalanche at the Hakuba snow patch occurred on May 4th, 1992. Terada, H., et al, [1993,jpn] 48-3178
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] 48-2818
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12

Avalanche triggering
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] 48-2866
Avalanche control technology: a growing industry in France. Penniman, D., [1990,eng] 48-2361
Explosives for avalanche control. Heywood, L., [1993,eng] 48-2648
Military artillery for avalanche control. Abromeit, D., [1993,eng] 48-2647
Rutschblock precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] 48-3593
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851
Snow slab layers and stability: a summary of some recent research and experience. Jamieson, J.B., [1994,eng] 48-3271
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
System for artificially triggering snow avalanches from helicopter. Wendl, F., [1993,eng] 48-4435

Avalanche wind
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847

Avalanches
Avalanche activity in Tuckerman Ravine. Boyne, H., [1994,eng] 48-3274
Avalanche flotation ball. Manix, T.J., [1990,eng] 48-2167
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] 48-2127
Avalanche report 1991/1992. Documentation and case studies. Ruhm, F., ed, [1993,ger] 48-765
Avalanches in the Teton Range, summer 1993. Woodmencey, J., [1993,eng] 48-1782
Construction of distribution functions of the dynamic parameters of avalanches. Bozhinskiĭ, A.N., [1992,rus] 48-1397
Cross-type clamp to join snow net cables. Bolliger, R., [1993,eng] 48-1284
Deaths and injuries from snow accidents in Japan. Numano, N., [1993,jpn] 48-3185
Growth of avalanche education in Japan. Nitta, R., et al, [1994,eng] 48-3277
Inflatable rucksack for avalanche survival. Rodger, I., [1994,eng] 48-3272
Large scale avalanche at the Hakuba snow patch occurred on May 4th, 1992. Terada, H., et al, [1993,jpn] 48-3178
Lulu Pass avalanche. Gamble, S., [1994,eng] 48-4119
Microwave locator of objects buried in snow. Fitzgerald, L., [1994,eng] 48-3276
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Ping-pong avalanches. Nohguchi, Y., [1993,jpn] 48-3191
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow avalanche disaster of winter 1992 in southeastern Anatolia, Turkey. Gürer, I., [1993,eng] 48-3173
Snow avalanche disaster of winter 1992 in southeastern Anatoliya, Türkiye. Gürer, I., [1993,eng] 48-766
Snow avalanche protection program and structural design—case study of Maseguchi area. Fujisawa, K., [1994,eng] 48-4932
Snow avalanches and the settlement of Langtang village, Nepal Himalaya. Watanabe, T., [1989,jpn] 48-3124
Snow avalanches in Iceland during winter 1989-1990. Magnusson, M.M., [1992,ice] 48-5317
Snow avalanches in Iceland, winter 1988-89. Magnússon, M.M., [1991,ice] 48-5294
Warning system for snow avalanches. Terada, H., [1994,eng] 48-4933

See [also]: Snow slides

Backscattering
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] 48-1704
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] 48-3585
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Arctic sea ice microwave signature and geophysical processes study. Onstott, R.G., et al, [1993,eng] 48-1693
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] 48-1729
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] 48-3445
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] 48-1336
First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] 48-4471
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] 48-3476
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] 48-4037
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] 48-131
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276

Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] 48-3483
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] 48-4694
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Mapping of snow cover by ERS-1 SAR. Solberg, R., [1993,eng] 48-1717
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] 48-1719
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data. Wiesmann, A., et al, [1994,eng] 48-3469
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Polarimetric radar measurements of artificial sea ice during CRRELEX '88. Onstott, R.G., [1990,eng] 48-4747
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1700
Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] 48-2645
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] 48-3301
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] 48-1702
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
SAR backscatter from sea ice. Joughin, I.R., et al, [1993,eng] 48-4156
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Scatterometer measurements of arctic sea ice at C-band. Grandell, J., et al, [1993,eng] 48-1701
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482
Snow wetness retrieval algorithm for SAR. Shi, J.C., et al, [1992,eng] 48-3284
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] 48-2363
Synthetic dense media fabrication with application to sea ice. Porco, R.L., et al, [1993,eng] 48-1696
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] 48-1772
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] 48-3446
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Water equivalent of snow and backscattering at C-band. Kondoh, A., et al, [1993,eng] 48-1708
Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1687

Bacteria
Bacterial destruction of proteins and protein composition of saprophytic bacteria in the Barents Sea belonging to different ecological groups. Tikhonov, P.S., [1991,rus] 48-2529
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] 48-2957
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil. Nelson, L.M., et al, [1978,eng] 48-3410
Effects of freeze-thaw stress on bacterial populations in soil microcosms. Morley, C.R., et al, [1983,eng] 48-3411
Heterotrophic bacteria in the coastal zone of the Barents Sea. Pesegov, V.G., [1991,rus] 48-2528
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840
Microbial response to experimental sea ice formation. Grossmann, S., et al, [1993,eng] 48-2412
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia. Grishkan, I.B., et al, [1993,eng] 48-2301
Microorganism numbers in the deep layer of the central antarctic ice-sheet. Abyzov, S.S., et al, [1993,eng] 48-1666
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea. Baitaz, V.A., et al, [1991,rus] 48-2527
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Responses to temperature of an Arctic psychrophylic ice diatom. Smith, R.E.H., et al, [1994,eng] 48-3791
Vertical distribution of bacteria in Arctic sea ice. Gosink, J.J., et al, [1993,eng] 48-2314

Baffin Bay
Sea ice and climatic change in the Canadian Arctic since 1800. Dunbar, M., [1985,eng] 48-2721

Balloons
Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] 48-4400

Baltic Sea
Airborne electromagnetic mapping of ice thickness in the Baltic Sea. Hautaniemi, H., et al, [1994,eng] 48-5592
Dumping of radioactive wastes into the sea environment: scientific and practical aspects. Kuznetsov, IU.V., et al, [1993,eng] 48-4513
Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] 48-5571
Mathematical modeling of dynamic-thermodynamic behaviour of sea ice. Leppäranta, M., [1990,eng] 48-4687
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] 48-3467
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Performance of ice-navigating vessels in the northern Baltic in winter 1992. Pöntynen, H., [1992,eng] 48-2133
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] 48-3474
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] 48-1822

Bank protection (waterways)
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-1126
Structures to protect river banks against ice erosion. Androshchuk, V.V., et al, [1992,eng] 48-5518

Banks (waterways)
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] 48-529
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] 48-512
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
See [also]: Shores

Barents Sea
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Annual dynamics of nutrient transition through the western boundary of the Barents Sea. Volkovskaia, L.E., et al, [1991,rus] 48-2525
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726
Bacterial destruction of proteins and protein composition of saprophytic bacteria in the Barents Sea belonging to different ecological groups. Tikhonov, P.S., [1991,rus] 48-2529
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] 48-3804
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991. Roos, P., et al, [1993,eng] 48-4530
Environmental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520
Environmental impact of a subsea natural gas pipeline failure. Hyttinen, H., et al, [1994,eng] 48-3986
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean. Nikitin, A.I., et al, [1993,eng] 48-4524
General problems in database formation for the study of arctic marine ecosystems. Matishov, G.G., et al, [1992,rus] 48-2071
Glacial erosion processes need improved understanding. Saetrem, J., [1992,eng] 48-2457
Heterotrophic bacteria in the coastal zone of the Barents Sea. Pesegov, V.G., [1991,rus] 48-2528
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] 48-131
Iceberg data from annual expeditions in the Barents Sea. Spring, W., et al, [1993,eng] 48-130
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] 48-2897
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] 48-4178
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] 48-4734
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] 48-5123
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskii, G.I., et al, [1993,eng] 48-4549
Optical measurements. Hökedal, J., et al, [1992,eng] 48-2906
Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] 48-128
Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman. Il'in, G.V., [1991,rus] 48-2526
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127
Production of microphytobenthos in the coastal area of the Barents Sea. Kuznetsov, L.L., [1991,rus] 48-2531

Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea. Baitaz, V.A., et al, [1991,rus] 48-2527
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskii, S.M., et al, [1993,eng] 48-4532
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992. Spring, W., et al, [1993,eng] 48-129
Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] 48-126
Scale of the last glaciation in the arctic basin. Pavlidis, IU.A., [1992,eng] 48-2605
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea. Wassmann, P., et al, [1993,eng] 48-595
Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea. Fomin, O.K., [1991,rus] 48-2533
Seasonal succession of microphytoplankton in the coastal zone of East Murman. Druzhkov, N.V., et al, [1991,rus] 48-2530
Seasonal succession of zooplankton in the coastal zone of Eastern Murman. Druzhkov, N.V., et al, [1991,rus] 48-2532
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] 48-541
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Sellafield as a source of radioactivity to the Barents Sea. Kershaw, P.J., et al, [1993,eng] 48-4531
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Soviet-Norwegian expedition in the Barents Sea. Abramov, V.A., [1992,eng] 48-736
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555
Survey of artificial radionuclides in the Kara Sea. Strand, P., et al, [1993,eng] 48-4514
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean. Cochran, J.K., et al, [1993,eng] 48-4543
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Transfer of reprocessing wastes from NW Europe to the Arctic. Kershaw, P.J., et al, [1993,eng] 48-4521
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529

Barometric pressure
See [also]: Atmospheric pressure

Barrier ice
See [also]: Ice shelves

Basal sliding
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Thinning rate of ice sheet on Mizuho Plateau. Toh, H., et al, [1992,eng] 48-919
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391

Bases
See [also]: Foundations; Pavement bases; Permafrost bases

Basins
See [also]: River basins

Bathymetry
See [also]: Sounding

Batteries
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] 48-1837
Method and apparatus for conserving battery power in a snowmobile electrical system. Chasteen, R.E., et al, [1991,eng] 48-2251
Method and apparatus for thermal control of automotive components. Inkmann, M.S., et al, [1992,eng] 48-2240
Military vehicles for cold climates. Falk, A., [1994,eng] 48-3946
Operability: the first step to mobility. Diemand, D., [1993,eng] 48-1166
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] 48-1603

Baykal Amur railroad
About an assessment of factors in railway bed stability in the permafrost zone. Garagulia, L.S., et al, [1994,eng] 48-3399
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] 48-3405
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone. Vakhnenko, S.V., et al, [1992,rus] 48-186

Beach erosion
See [also]: Shore erosion

Beaches
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] 48-3715
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
See [also]: Shores

Beaded streams
See [also]: Patterned ground

Bearing strength
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] 48-4917
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] 48-439
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] 48-4361
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] 48-4916
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Prestressed ice as indigenous polar construction material. Nese, P.I., et al, [1991,eng] 48-4040
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] 48-4909
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] 48-357
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
Use of fresh concrete for piles in permafrost. Senneset, K., et al, [1994,eng] 48-3352
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
See [also]: Ice cover strength; Snow strength; Trafficability

Bearing tests
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] 48-2963

Beaufort Sea
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC). Schultz, A., et al, [1993,eng] 48-327
Beaufort Sea coastal fish studies: overview and bibliography. Harris, R.K., [1993,eng] 48-40
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] 48-2008
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] 48-787
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Coupled ice-ocean model of the Beaufort and Chukchi Seas. Hedstrom, K.S., et al, [1993,eng] 48-791
Dry coastal ecosystems of Alaska. Batten, A.R., et al, [1993,eng] 48-1124
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Estimation of burial depths for pipelines in the Beaufort Sea. Chouinard, L.E., [1993,eng] 48-153
Formation of a haline shelf front in wintertime in an ice-covered arctic sea. Melling, H., [1993,eng] 48-1616
Ice conditions on Alaska's Beaufort Sea Coast: extending the observations. Metzner, R., et al, [1979,eng] 48-4142
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Petroleum potential of the Beaufort and Chukchi Seas. Cooke, L.W., [1993,eng] 48-788
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] 48-4132
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326
SAR backscatter from sea ice. Joughin, I.R., et al, [1993,eng] 48-4156
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670

Bedrock
Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] 48-254
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] 48-2457
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] 48-1011
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] 48-1010
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] 48-2671
Sticky spots under ice streams. Alley, R.B., [1992,eng] 48-2623

Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105

Belarus
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610

Bentonite
See [also]: Clay minerals

Bering Sea
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] 48-1279
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea. Sato, K., [1988,jpn] 48-1838
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992
Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] 48-3458
Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] 48-3304
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052

Bering Strait
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Ice transference of Bering Strait. IAkunin, L.P., et al, [1993,eng] 48-4348
Prospective railroad construction under the Bering Strait. Kudoiarov, L.I., [1994,eng] 48-4771

Bibliographies
Arctic policy bibliography. Green, K.W., et al, [1991,eng] 48-4939
Beaufort Sea coastal fish studies: overview and bibliography. Harris, R.K., [1993,eng] 48-40
Bibliographic data file of WDC-A. Shartran, M.J., [1978,eng] 48-2981
Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed, et al, [1992,eng] 48-2694
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] 48-1424
Brief bibliography—snowstorms. National Oceanic and Atmospheric Administration, [1990,eng] 48-2409
Citation analysis of ice-structure interaction conference papers. Muhonen, A., [1994,eng] 48-5566
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] 48-2918
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121
How the Cold Regions database covers polar oceanography. Hibben, S.G., [1994,eng] 48-5093
Permafrost and climatic change: an annotated bibliography. Koster, E.A., et al, [1994,eng] 48-5434
Permafrost: a bibliography, 1978-1982. Brennan, A.M., [1983,eng] 48-2986
Recent Canadian glacier references—1986-1988. Ommanney, C.S.L., [1989,eng] 48-2448
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3190
Snow and ice in the publications of the Canadian Institute, 1852-1914. Adams, P., [1993,eng] 48-2943
Towards a permafrost information and data system. Barry, R.G., et al, [1993,eng] 48-353
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] 48-5416

Bioenvironment
See [also]: Ecology; Ecosystems

Biogeography
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] 48-205
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] 48-1028
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] 48-207
Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] 48-84
On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] 48-206
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] 48-2941
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] 48-2416

Biology
See [also]: Cryobiology; Marine biology; Microbiology

Biomass
Arctic marine ecosystems. Alexander, V., [1992,eng] 48-1261
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] 48-4212
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] 48-4822
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] 48-2957
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991. Sapozhnikov, V.V., [1992,eng] 48-2606
Effect of freeze-thaw events on mineralization of soil nitrogen. DeLuca, T.H., et al, [1992,eng] 48-3412
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] 48-5367
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] 48-3201
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90. Prézelin, B.B. et al, [1994,eng] 48-4387
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] 48-4734
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
On the study of bottom fauna in Anabarskiy Gulf of the Laptev Sea. Gukov, A.IU., [1992,eng] 48-2604
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] 48-1071
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Phytoplankton in the Antarctic Marginal Ice Zone. Kang, S.H., [1992,eng] 48-1024
Phytoplankton production and biomass in South Atlantic Ocean frontal zones. Laubscher, R.K., et al, [1993,eng] 48-918
Phytoplankton variations in Weddell Sea ice formation. Gleitz, M., et al, [1993,eng] 48-2411
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] 48-942
Primary production in sea ice covered waters. Alexander, V., [1990,eng] 48-4665
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Production of organic matter in antarctic sea shelf. Dhargalkar, V.K., et al, [1992,eng] 48-1525
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea. Baitaz, V.A., et al, [1991,rus] 48-2527
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] 48-3319
Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea. Fomin, O.K., [1991,rus] 48-2533
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Soil biological activity and transformation of organic matter during winter. Zolotareva, B., et al, [1993,eng] 48-2307
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] 48-4388
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222
Will the ozone hole over Antarctica affect the productivity of the southern ocean. El-Sayed, S.Z., [1992,eng] 48-3246

Biota
See [also]: Ecology

Bitumens
Asphalt viscoelasticity under high and low temperatures. Hase, M., [1993,ger] 48-607
Cold hand patching materials. Outcalt, W., [1993,eng] 48-3282
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] 48-3391
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Winter maintenance on porous asphalt. Noort, M., [1991,eng] 48-3070

Bituminous concretes
Application of in-situ surface recycling methods in cold areas. Kikukawa, S., et al, [1993,eng] 48-5072
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
Classification of distress of asphalt pavements. Nishizawa, T., et ', [1993,eng] 48-5078
Development of stone mastic asphalt mixes for Ontario use. Emery, J., et al, [1993,eng] 48-5086
Effect of highway geometry on distress of asphalt pavements in cold climates. Abd El Halim, A.O., et al, [1993,eng] 48-5079
Evaluation of a major concrete pavement rehabilitation and overlay project in Ontario. Kazmierowski, T.J., et al, [1993,eng] 48-5081
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] 48-5085
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] 48-5188
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Low temperature properties of asphalts and asphaltic mixtures. Moriyoshi, A., et al, [1993,eng] 48-5089
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403

Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Performance of in-situ hot mix recycling as a maintenance technique in Ontario. Marks, P., et al, [1993,eng] 48-5073
Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] 48-5066
Rapid pothole repairs during adverse weather conditions: field evaluation. Joseph, P., et al, [1993,eng] 48-5092
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] 48-5076
Rheological properties of regular and polymer modified asphalts. Gagnon, P.F., et al, [1993,eng] 48-5090
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr. et al, [1992,eng] 48-2116
Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] 48-5080
Stabilized recycled plastics as high performance asphalt binder modifiers. Liang, Z.Z., et al, [1993,eng] 48-5075
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915
Study on the application of surface recycling methods. Nakanishi, T., et al, [1993,eng] 48-5074
Study on the evaluation methods for the strength of pavement materials. Kiriyama, T., et al, [1993,eng] 48-5091
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] 48-720

Blasting
Explosives for avalanche control. Heywood, L., [1993,eng] 48-2648
Military artillery for avalanche control. Abromeit, D., [1993,eng] 48-2647
System for artificially triggering snow avalanches from helicopter. Wendl, F., [1993,eng] 48-4435
See [also]: Explosion effects

Blowing snow
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] 48-2844
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] 48-2842
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] 48-2859
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] 48-2843
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Investigative report on line of sight in the effectiveness of snow advisory display signs. Kaku, T., [1991,jpn] 48-4240
Measurements of drifting snow particles. Kimura, T., [1991,jpn] 48-3422
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Millimeter wave system for landing aircraft in snowstorm. Huguenin, G.R., [1990,eng] 48-2163
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
New guidelines for blowing snow control. Tabler, R.D., [1993,eng] 48-1194
Northernmost winter roads. Takebayashi, T., et al, [1987,jpn] 48-282
Numerical simulation of snowdrift. Uematsu, T., [1992,jpn] 48-3167
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] 48-2841
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] 48-3031
Poor visibility caused by snow whirl behind vehicles. Fukuzawa, Y., [1993,jpn] 48-3171
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] 48-276
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Snowdrift countermeasures. Sato, S., [1987,jpn] 48-546
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847
Studies on the driver's visual point. Chapter 8. Visual behavior of drivers in blowing snow. Hagiwara, T., [1991,jpn] 48-4238
Study on blowing snow countermeasures and traffic control. Togashi, Y., et al, [1986,jpn] 48-258
Study on hindrance to visibility and to the driver's visual point by blowing snow. Kaku, T., [1992,jpn] 48-4239
Study on snowdrift countermeasures in the Shonai region. Sawada, K., et al, [1987,jpn] 48-545
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] 48-1786
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Visibility reduction by snow in the wake of highway vehicles. Fukuzawa, Y., et al, [1993,jpn] 48-1968
Visibility reduction caused by snow and a driver's eye movement. Ishimoto, K., et al, [1993,jpn] 48-1967
Visibility reduction caused by snow in the wake of vehicles on highways. Ishimoto, K., et al, [1993,eng] 48-1201
Visual range in airborne snow particles. Takeuchi, M., [1991,jpn] 48-3423
Weather observation and its use for road management. Takeuchi, M., [1986,jpn] 48-31
Wind tunnel test for snowbreak forests along a highway. Yoshizawa, M., et al, [1993,jpn] 48-1972
See [also]: Snowdrifts

Boats
See [also]: Ships

Bogs
See [also]: Swamps

Bolivia
—Andes
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984

Booms (equipment)
See [also]: Ice booms

Borehole instruments
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
Borehole logging device at Dome F, Antarctica. Naruse, R., et al, [1994,eng] 48-5351
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] 48-91
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] 48-4481
New short borehole logging tool. Hansen, B.L., et al, [1994,eng] 48-5348
UCPH borehole logger. Gundestrup, N.S., et al, [1994,eng] 48-5349
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

Boreholes
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] 48-3598
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
Borehole drilling for sewage disposal at Asuka Station, East Antarctica. Ishizawa, K., et al, [1994,eng] 48-5347
Borehole logging device at Dome F, Antarctica. Naruse, R., et al, [1994,eng] 48-5351
Borehole temperature equilibrium in permafrost. Wang, B.L., [1993,chi] 48-4585
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] 48-3761
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Directional drilling in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-5342
Drilling of glacier boreholes with a hydrophilic liquid. Zagorodnov, V.S., et al, [1994,eng] 48-5341
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Ice auger extractor for retrieving augers or similar devices from a bore hole. Walsh, M.R., [1990,eng] 48-2168
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] 48-4945
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
New short borehole logging tool. Hansen, B.L., et al, [1994,eng] 48-5348
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
Report on permafrost study at Isla Marambio (Seymour Island). Fukuda, M., et al, [1993,jpn] 48-2433
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] 48-5210
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] 48-2396
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] 48-406
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] 48-5160
UCPH borehole logger. Gundestrup, N.S., et al, [1994,eng] 48-5349
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

Boring
See [also]: Drilling

Botany
See [also]: Geobotanical interpretation; Paleobotany; Plants (botany); Vegetation

Bothnia, Bay
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007

Bothnia, Gulf
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] 48-1056
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] 48-3449

Bottom friction
See [also]: Basal sliding

Bottom ice
Bottom melting on FRIS: results from different methods. Grosfeld, K., et al, [1992,eng] 48-237
Ice formation in steep rivers. Tesaker, E., [1994,eng] 48-5601
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no 3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Study on frazil and anchor ice processes and development of a river ice model. Wang, D.S., [1994,eng] 48-3547

Bottom sediment
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] 48-1526
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] 48-3804
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas. Hain, S., et al, [1994,eng] 48-3039
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] 48-3329
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] 48-4188
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246

Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] 48-1007
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] 48-4945
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] 48-4361
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Pump freeze corer for recent sediments. Renberg, I., et al, [1993,eng] 48-1527
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed. et al, [1992,eng] 48-1923
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] 48-3709
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
Sediment descriptions, Bransfield Strait 1986-1987. Bryan, J.R., ed, et al, [1993,eng] 48-3816
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] 48-5040
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Terrigenous sedimentation processes in seas and oceans. Lisitsyn, A.P., [1991,rus] 48-303
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189

Bottom topography
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] 48-3944
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] 48-239
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
Flow over dunes in ice-covered channels. Smith, B.T., et al, [1994,eng] 48-5545
Glacier geophysical studies for an ice-core site at Taylor Dome: year two. Morse, D.L., et al, [1992,eng] 48-2627
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] 48-2618
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295
Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet. Kvambekk, Å.S., [1992,eng] 48-2898
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines. De Veaux, R.D., et al, [1993,eng] 48-2244
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322

See [also]: Ocean bottom

Boulders
See [also]: Rocks

Boundary layer
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052

See [also]: Interfaces; Turbulent boundary layer

Boundary value problems
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Models of boundary value problems pertaining to the Weddell Sea. Fettweis, M., et al, [1990,eng] 48-777
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Snowdrifting simulation around a Davis Station workshop. Smedley, D.J., et al, [1993,eng] 48-2911
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894

Breakup
See [also]: Ice breakup

Bricks
Construction in polar regions using local raw materials. Cherskiĭ, I.N., et al, [1994,eng] 48-3948
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956

Bridges
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5624
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] 48-4133
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] 48-140
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Clearing ice for bridging operations. Diemand, D., [1994,eng] 48-5425
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Estimation of stresses on bridge railings by accumulated snow. Kitamura, N., et al, [1989,jpn] 48-672
Experimental and numerical analysis of floating ice beam impact forces against a sloped structure. Coutermarsh, B.A., [1994,eng] 48-5148
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-371
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216
Guidelines for type approval of waterproofing materials for concrete bridges. Wegan, V., [1994,eng] 48-4002
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Icing study for a future suspended bridge at Montmorency Falls. McComber, P., et al, [1993,eng] 48-2971
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-885
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] 48-149

See [also]: Ice crossings; Pontoon bridges; River crossings

Brightness
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] 48-3229
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] 48-1311
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] 48-3758
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] 48-4035
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653
Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] 48-2217
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] 48-2871
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] 48-1305
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109

Brines
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1[illegible]8
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] 48-5152
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] 48-3015
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259

Brittleness
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] 48-3973
Failure modes in compressed ice. Buck, S.E., et al, [1994,eng] 48-5584
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] 48-2080
Multiple cracking and damage in brittle solids. Kachanov, M., [1992,eng] 48-1551
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158

Bubbles
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] 48-5354
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
Effect of hydrostatic pressure on the formation of air-hydrate crystals. Ikeda, T., et al, [1993,eng] 48-1865
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] 48-3219
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Paleovariations of atmospheric composition in ancient ice core air bubbles. Semiletov, I.P., [1993,rus] 48-3566
Surface energy of air-hydrate crystals in Vostok ice core. Uchida, T., et al, [1993,eng] 48-1863
Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] 48-2876
Verification of extrusive volcanism in an ice core from King George I. Dai, F.N., et al, [1993,chi] 48-1944
Why is there air in concrete. Hover, K.C., [1993,eng] 48-286
See [also]: Gas inclusions

Bubbling
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] 48-4303
Study on ice management by the air bubble method. Yamanaka, K., et al, [1993,jpn] 48-1045

Building
See [also]: Construction

Building codes
Arctic and subarctic construction foundations for structures.[1983,eng] 48-762
Arctic and subarctic construction: utilities.[1987,eng] 48-1141
Construction calculation for freeze and thaw depths in soils.[1988,eng] 48-763
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] 48-3024
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] 48-3029
Guidelines for type approval of waterproofing materials for concrete bridges. Wegan, V., [1994,eng] 48-4002
Heating and ventilation systems for industrial buildings. Finkel'shtein, S.M., [1994,eng] 48-3861
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
See [also]: Design criteria; Specifications

Building materials
See [also]: Construction materials

Buildings
Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Cold climate HVAC '94. International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994, [1994,eng] 48-3841
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Construction of the new Neumayer Station in Antarctica. Enss, D., [1992,ger] 48-3243
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Design and construction of short range radar stations in the Canadian Arctic. Sanderson, K.J., [1994,eng] 48-3350
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] 48-1735
Ecological and economical thermo-blocks for external walls. Lapsa, V.A., [1994,eng] 48-3877
Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] 48-3404
Frost heave damage to buildings and water pipelines in permafrost. Jiao, T.B., [1993,chi] 48-4507
General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
HVAC technology and trade in Russia and other East European countries. Tabunshchikov, IU.A., [1994,eng] 48-3855
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
New method for estimating the heat effectiveness of a building in extreme climatic conditions. Brodach, M.M., et al, [1994,eng] 48-3874
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
Norman Wells air terminal building. Brown, K., et al, [1994,eng] 48-3349
On the influence of gravitational forces on space building air circulation schemes. Grimitlin, M.I., [1994,eng] 48-3859
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] 48-4493
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] 48-5218
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] 48-479
Qualities of home and work place achievable in intelligent buildings in cold climates. Kainlauri, E.O., [1994,eng] 48-3878
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] 48-5225
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Rule-based assembly of architectural details for cold climates in three-dimensions. Seebohm, T., [1994,eng] 48-3882
Sawauchi Village Institute of Snow Country Culture. Takahashi, T., [1989,jpn] 48-673
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] 48-4494
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] 48-5217
Simplified ventilation system Thermonet. Hyvärinen, K., [1994,eng] 48-3872
Snowdrifting simulation around a Davis Station workshop. Smedley, D.J., et al, [1993,eng] 48-2911
Snowdrifts and the differential settlement of buildings (1). Yamanashi, M., et al, [1993,jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2). Hanuki, T., et al, [1993,jpn] 48-2001
Special demands for ventilation system and product standards in cold climates. Railio, J., [1994,eng] 48-3858
Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] 48-2700
Sustainable urban development in cold climate. Lundborg, G., [1994,eng] 48-3883
Tariff policy in district heating. Jauhiainen, I., [1994,eng] 48-3856
Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] 48-761
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Variation of energy consumption in dwellings due to climate, building and inhabitants. Pettersen, T.D., [1994,eng] 48-3871
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845
See [also]: Houses; Industrial buildings; Large panel buildings; Portable shelters; Residential buildings; Shelters

Bulgaria
—Rositsa River
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153

Buoyancy
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231

Cables (power lines)
See [also]: Power lines; Transmission lines

Cables (ropes)
Cross-type clamp to join snow net cables. Bolliger, R., [1993,eng] 48-1284

Caissons
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Gravity base structure for an offshore platform in arctic regions. Barbaras, G.A.A., et al, [1990,eng] 48-2175
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358

Calcium chloride treatment
See [also]: Salting

Calorimeters
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] 48-1547

Calorimetry
See [also]: Temperature measurement

Calving
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] 48-1564
Ice shelves and icebergs—an overview. Oerlemans, J., [1989,eng] 48-1661
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Sallourn, J.E., [1993,eng] 48-5380
Major glacier surge continues. Molnia, B.F., [1993,eng] 48-2159
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] 48-2417
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127
Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] 48-126
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329

Canada
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] 48-2720
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] 48-2918
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] 48-821
Evaporation from alpine tundra in the Canadian Cordillera. Bailey, W.G., et al, [1990,eng] 48-1570
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] 48-4971
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121

Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] 48-2813
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] 48-2703
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] 48-2702
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] 48-3081
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] 48-3082
Ice thickness data, winter 1991-1992.[1993,eng] 48-2162
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] 48-396
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Recent Canadian glacier references—1986-1988. Ommanney, C.S.L., [1989,eng] 48-2448
Recent observed trends and modelled interannual variability in Canadian snow cover. Brown, R.D., et al, [1993,eng] 48-2968
Record low ozone values over Canada in early 1993. Kerr, J.B., et al, [1993,eng] 48-1114
Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] 48-1728
Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] 48-3465
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Temperature variation at eighteen Canadian weather stations. McCormick, G., [1994,eng] 48-3362
To salt or not to salt. What are the alternatives. Samuels, J., [1989,eng] 48-2043
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] 48-2509
Winter maintenance on Transport Canada airports. Anderson, F., [1993,eng] 48-5083
World-class icebreaker: the Canadian *Polar*-8. Brigham, L.W., [1986,eng] 48-2337

—Alberta
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] 48-3382
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961

—Alberta—Calgary
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378

—Alberta—Edmonton
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
Field monitoring of frost-related sidewalk cracking. Baker, T.H.W., et al, [1994,eng] 48-3366

—Alberta—Mackenzie Highway
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306

—Alberta—Peyto Glacier
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603

—Alberta—Rae, Mount
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560

—Alberta—Zama Lake
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943

—Axel Heiberg Island
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132

—Baffin Island
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] 48-73
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382

—British Columbia
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia. Schmok, J., [1988,eng] 48-2364
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] 48-2394
Evaluation of evaporation models for alpine tundra, British Columbia, Canada. Saunders, I.R., et al, [1990,eng] 48-1571
Late glacial climatic change in British Columbia. Mathewes, R.W., [1985,eng] 48-2726
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] 48-2818

—British Columbia—Knight Inlet
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006

—British Columbia—Kootenay Pass
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171

—British Columbia—Peace River
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140

—British Columbia—Saint Elias Mountains
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588

—British Columbia—Seymour Valley
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971

—British Columbia—Summit Lake
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221

—Cordillera Mountains
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372

—Hudson Bay
1990 temperature and precipitation during Northern Wetlands Study. Mortsch, L.D., [1994,eng] 48-4602
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] 48-2354
Evidence from Hudson Bay region of severe cold in the summer of 1816. Catchpole, A.J.W., [1985,eng] 48-2722
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] 48-2723
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009

—Hudson Strait
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] 48-2209

—Labrador
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] 48-5574

—Mackenzie Delta
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475

—Mackenzie River
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359

—Manitoba
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] 48-5379

—Manitoba—Nelson River
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397

—Melville Island
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] 48-1018

—New Brunswick
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] 48-5537
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725

—New Brunswick—Restigouche River
Temperature differences in the Restigouche estuary during the ice-covered season. Bettignies, C., et al, [1994,eng] 48-3360

—Newfoundland
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] 48-4121
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] 48-5574

—Newfoundland—Grand Banks
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Sallourn, J.E., [1993,eng] 48-5380
Measurements of bergy bit and growler populations off Canada's east coast. Crocker, G.B., et al, [1994,eng] 48-5554
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130

—Northumberland Strait
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622

—Northwest Territories
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] 48-1019
Comprehensive domestic water quality study in the Northwest Territories. Facey, R.M., et al, [1994,eng] 48-3377
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
Fire protection strategics for the Northwest Territories. Marianayagam, C., et al, [1994,eng] 48-3365
Hazardous waste strategy for communities in Canada's Northwest Territories. Kent, R.J., et al, [1994,eng] 48-3356
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156

—Northwest Territories—Alert
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] 48-2461
Biogenic sulfur aerosol in the Arctic troposphere: 1. Contributions to total sulfate. Li, S.M., et al, [1993,eng] 48-3642
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698

—Northwest Territories—Arctic Archipelago
History of Hobson's Choice Ice I. Jeffries, M.O., et al, [1993,eng] 48-898
Sea ice and climatic change in the Canadian Arctic since 1800. Dunbar, M., [1985,eng] 48-2721

—Northwest Territories—Axel Heiberg Island
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420

—Northwest Territories—Baffin Island
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430

Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] 48-3529
Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] 48-1833
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] 48-4128
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130

—Northwest Territories—Devon Island

Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] 48-2374

—Northwest Territories—Ellesmere Island

Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
Liquid waste management CFS Alert. Héroux, J.A., et al, [1994,eng] 48-3380
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972

—Northwest Territories—Fort Norman

Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660

—Northwest Territories—Fort Simpson

Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877

—Northwest Territories—Garry Island

Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208

—Northwest Territories—Inuvik

Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764

—Northwest Territories—Iqaluit

Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] 48-3384
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. Johnson, K., et al, [1994,eng] 48-3381

—Northwest Territories—Mackenzie Delta

Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049

—Northwest Territories—Mackenzie Mountains

Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412

—Northwest Territories—Mackenzie River

Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Omstedt, A., et al, [1994,eng] 48-4413

—Northwest Territories—Mackenzie River Delta

Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] 48-319

—Northwest Territories—Mackenzie Valley

Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599

—Northwest Territories—Melville Island

Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231

—Northwest Territories—Norman Wells

Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Norman Wells air terminal building. Brown, K., et al, [1994,eng] 48-3349

—Northwest Territories—Queen Elizabeth Islands

1550-1620: a period of summer accumulation in the Queen Elizabeth Islands. Alt, B.T., [1985,eng] 48-2729

—Northwest Territories—Rankin Inlet

Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] 48-3609

—Northwest Territories—Resolute

Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Responses to temperature of an Arctic psychrophylic ice diatom. Smith, R.E.H., et al, [1994,eng] 48-3791

—Northwest Territories—Resolute Bay

Canadian SARES project within the framework of the Canada-Japan Complementarity Study. Legendre, L., [1993,eng] 48-1072
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] 48-1081
Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] 48-1079
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] 48-1080

—Northwest Territories—Trail Valley Creek

Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155

—Northwest Territories—Tuktoyaktuk Peninsula

Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052

—Northwest Territories—Victoria Island

Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] 48-1218
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946

—Northwest Territories—Wollaston Peninsula

Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934

—Northwest Territories—Yellowknife

Baling facility for municipal solid waste for the city of Yellowknife. Levert, D., et al, [1994,eng] 48-3357

—Nova Scotia

Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830

—Ontario

Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
Development of stone mastic asphalt mixes for Ontario use. Emery, J., et al, [1993,eng] 48-5086
Effectiveness of calcium magnesium acetate deicer. Perchanok, M.S., et al, [1992,eng] 48-3069
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Evaluation of a major concrete pavement rehabilitation and overlay project in Ontario. Kazmierowski, T.J., et al, [1993,eng] 48-5081
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Freezing precipitation on lifting surfaces. Oleskiw, M.M., [1991,eng] 48-4864
Highway de-icers: standards, practice and research in the Province of Ontario. Perchanok, M.S., et al, [1991,eng] 48-3068
Investigation of material and geometric characteristics of highway snow fence. Perchanok, M.S., [1993,eng] 48-4005
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Performance of in-situ hot mix recycling as a maintenance technique in Ontario. Marks, P., et al, [1993,eng] 48-5073
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] 48-823
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632

—Ontario—Fraserdale

Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614

—Ontario—James Bay

Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617

—Ontario—Kinosheo Lake

Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

—Ontario—Moosonee

Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612

—Ontario—Peterborough

Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139

—Prince Edward Island

Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725

—Quebec

Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Ice accumulation characteristics on Hydro-Quebec HV insulators. Drapeau, J.F., et al, [1993,eng] 48-846
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] 48-3261
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Rheological properties of regular and polymer modified asphalts. Gagnon, P.F., et al, [1993,eng] 48-5090
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] 48-812
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622

—Quebec—Boniface River

Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994

—Quebec—Grande Rivère de la Baleine

Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765

—Quebec—Hudson Bay

Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805

Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] 48-1383
—Quebec—James Bay
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay. Messier, D., et al, [1989,fre] 48-3432
—Quebec—Mont du Lac des Cygnes
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
—Quebec—Montmorency
Icing study for a future suspended bridge at Montmorency Falls. McComber, P., et al, [1993,eng] 48-2971
—Quebec—Montmorency Forest
Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] 48-1858
—Quebec—Montreal
Planning for snow removal. Girard, Y., [1993,eng] 48-2044
—Quebec—Nunavik
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] 48-3393
Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] 48-350
—Quebec—Scheffervilie
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
—Quebec—St. Lawrence River
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] 48-932
—Quebec—Ungava Peninsula
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
—Queen Elizabeth Islands
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
—Rocky Mountains
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
—Saint Lawrence, Gulf
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471
—Saskatchewan
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Key Lake spill. Final report.[1984,eng] 48-3677
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
—Saskatchewan—Prince Albert
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
—Saskatchewan—Watrous
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
—Saskatchewan River
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
—Ungava Bay
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
—Yukon
Canada : ze: up oil, gas strikes in Yukon, N.W.T.[1994,eng] 48-2157
—Yukon Territory
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] 48-2728
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] 48-1148
Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4006
Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-3264
Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4127
Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4126
—Yukon Territory—Logan, Mt.
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] 48-2545
—Yukon Territory—St. Elias Mountains
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
Capillarity
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] 48-3624
Capillary ice
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
Carbon black
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Carbon dating
See [also]: Radioactive age determination
Carbon dioxide
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] 48-4540
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] 48-2584
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] 48-4643
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] 48-5382
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Atmospheric carbon dioxide and the ocean. Siegenthaler, U. et al, [1993,eng] 48-334
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] 48-4822
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] 48-4197
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
CO_2 and glacial cycles. Saltzman, B., et al, [1994,eng] 48-2912
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
CO_2 monitored fluxes from northern terrestrial ecosystems. Zimov, S.A., et al, [1993,eng] 48-2310
CO_2 uptake in the Nordic seas. Nes, A., et al, [1992,eng] 48-2905
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] 48-3606
Evaluation of the use of supercritical fluids for the extraction of explosives and their degradation products from soil. Thorne, P.G., [1994,eng] 48-5310
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] 48-1797
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] 48-2974
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] 48-3255
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] 48-635
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D A., et al, [1992,eng] 48-988
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
Numerical simulation of the climatic change caused by CO2 doubling. Wang, H.J., et al, [1993,eng] 48-768
Numerical simulation of the ice age climate. Wang, H.J., et al, [1993,eng] 48-3221
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Paleovariations of atmospheric composition in ancient ice core air bubbles. Semiletov, I.P., [1993,rus] 48-3566
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Possible effects of ozone depletion on the global carbon cycle. Peng, T.H., [1992,eng] 48-1885
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Rel ase of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] 48-1476
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] 48-5419
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] 48-4758
See [also]: Dry ice (trademark)
Carbon isotopes
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Carbon monoxide
Carbon monoxide hazard in sub-antarctic exploration. Gill, R.M.F., [1994,eng] 48-5122
Carburetors
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Cyclohexyl nitrate fuel additive for cold starting. Dolmatov, V.IU., et al, [1992,eng] 48-5510
Diesel engine cold starting with catalytically ignited recirculated exhaust gas. Sun, R.N., et al, [1994,eng] 48-3092
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] 48-3086
Improving the cold start of spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3090
Unique cold start method used on Volvo's new 12L unit injector diesel engine. Gustavsson, T., et al, [1994,eng] 48-3112
Cargo
Arctic cargo transportation economic evaluation. Backlund, A., et al, [1993,eng] 48-101
Ice-navigating ships supply Chukotka. Novosel'tsev, E., et al, [1992,rus] 48-5400
See [also]: Frozen cargo
Carrying capacity
See [also]: Bearing strength

Cartography
See [also]: Mapping
Caterpillar tractors
See [also]: Tracked vehicles
Cation exchange
See [also]: Ion exchange
Caves
See [also]: Subglacial caves
Cavitation
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] **48-3115**
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] **48-120**
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] **48-2751**
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] **48-122**
Cellular plastic
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] **48-514**
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] **48-407**
See [also]: Thermal insulation
Cement admixtures
3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] **48-2317**
Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] **48-1520**
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] **48-447**
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] **48-1601**
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash. Chun, B.S., et al, [1993,eng] **48-3117**
Cements
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] **48-3954**
See [also]: Soil cement
Chambers
See [also]: Cloud chambers; Cold chambers; Test chambers; Wind tunnels
Channel stabilization
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] **48-2097**
Stabilisation of the tidal entrance at Hornafjordur, Iceland. Viggosson, G., et al, [1993,eng] **48-157**
Channels (waterways)
Calculation of flow in the network of snow removing channel. Sugimori, M., [1992,jpn] **48-3158**
Characteristics of the layout and operation of meliorative channels in Yakutia. Chzhan, R.V., et al, [1992,rus] **48-4786**
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] **48-404**
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] **48-2097**
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] **48-930**
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] **48-5233**
Experimental study of snow removing channel system driven by water jets. Kobayashi, T., et al, [1993,jpn] **48-3189**
Feasibility of conveying water by a canal in winter. Wu, Z.W., et al, [1993,chi] **48-1451**
Flow in ice covered channels. Schmidt, N.P., [1992,eng] **48-2654**
Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] **48-1452**
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] **48-510**
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] **48-4500**
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] **48-5207**
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] **48-1453**
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] **48-1533**
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] **48-1832**
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] **48-1543**
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] **48-3548**
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] **48-4499**
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] **48-5262**
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] **48-1137**
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] **48-479**
Prevention of frost damage to canals. Chen, X.B., [1993,eng] **48-5189**
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] **48-5239**
Procedures for building open irrigation channels with a high ground ice level. Ugarov, I.S., [1992,rus] **48-4787**
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] **48-1545**
Snow transport in an open channel on mild slope configuration. Fukushima, Y., et al, [1993,jpn] **48-3188**
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] **48-5219**
Study and development of the techniques against frost damage of hydraulic structures. Xu, B.M., et al, [1993,eng] **48-5254**
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] **48-420**
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] **48-1242**
Charge transfer
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] **48-1828**
Charge transfer during individual collisions in ice growing by riming. Avila, E.E., et al, [1991,eng] **48-3682**
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] **48-2859**
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] **48-4853**
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] **48-4936**
Ice-forming properties of organic reagents. IAtsimirskiĭ, V.K., et al, [1989,eng] **48-3748**
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] **48-71**
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] **48-4851**
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] **48-4691**
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] **48-4852**
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] **48-4925**
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] **48-4812**
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] **48-1823**
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] **48-983**
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] **48-4854**
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] **48-4050**
Charts
Charting the bathymetry of Weddell Sea, Antarctica. Hinze, H., [1994,eng] **48-5424**
Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] **48-2813**
See [also]: Maps; Meteorological charts
Chemical admixtures
See [also]: Admixtures
Chemical analysis
3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] **48-2317**
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] **48-4630**
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] **48-4025**
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] **48-2994**
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] **48-1012**
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] **48-1526**
Application of chromatograph in the study of frozen soils. Deng, Y.S., [1993,chi] **48-1457**
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] **48-2461**
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] **48-5145**
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] **48-2008**
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] **48-2425**
Chlorine activation during polar night. Müller, R., et al, [1993,eng] **48-3639**
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] **48-4835**
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] **48-1758**
Comments on paper by Bustamante et al. Leggett, D.C., [1994,eng] **48-5417**
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] **48-3825**
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] **48-3612**
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] **48-1233**
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] **48-218**
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] **48-1759**
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] **48-798**
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] **48-1867**
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] **48-982**
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms. Cragin, J.H., et al, [1993,eng] **48-1006**
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] **48-3755**
Evaluation of pre-extraction analytical holding times for nitroaromatic and nitramine explosives in water. Grant, C.L., et al, [1993,eng] **48-999**
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] **48-4657**
Experiments with explosive-contaminated soil. Jenkins, T.F., et al, [1993,eng] **48-723**
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] **48-5015**
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] **48-2047**
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] **48-526**
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] **48-4485**
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] **48-216**
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] **48-5367**
Heavy metal traces in antarctic ice and snow. Heumann, K.G., [1993,eng] **48-2382**
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] **48-2995**
Ice records of the past environment. Delmas, R.J., [1994,eng] **48-5308**
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] **48-3781**
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] **48-5156**
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] **48-3558**
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] **48-5146**
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] **48-3245**
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] **48-2431**
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] **48-1232**
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] **48-2055**
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] **48-1098**
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] **48-1818**
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] **48-1898**
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] **48-1253**
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] **48-1379**
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] **48-2374**
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] **48-2051**
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] **48-219**
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] **48-1092**
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] **48-2216**
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] **48-3607**
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] **48-4834**
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] **48-5509**
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] **48-1254**
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] **48-3892**
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] **48-1824**
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] **48-2636**
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] **48-4954**
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] **48-1234**
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] **48-3222**
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] **48-973**
See [also]: Frozen ground chemistry; Isotope analysis; Soil analysis
Chemical composition
Acetate de-icing agent for road surfaces. Stankowiak, A., et al, [1993,eng] **48-1939**
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] **48-1096**

Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993
Annual dynamics of nutrient transition through the western boundary of the Barents Sea. Volkovskaia, L.E., et al, [1991,rus] 48-2525
Anti-icing coating compositions. Murase, H., [1989,eng] 48-1872
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] 48-4659
Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] 48-1755
Atmospheric carbon dioxide and the ocean. Siegenthaler, U., et al, [1993,eng] 48-334
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Biogenic sulfur aerosol in the Arctic troposphere: 1. Contributions to total sulfate. Li, S.M., et al, [1993,eng] 48-3642
Biogenic sulfur aerosol in the Arctic troposphere: 2. Trends and seasonal variations. Li, S.M., et al, [1993,eng] 48-3643
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Circulation and water mass formation in the Weddell Sea. Fahrbach, E., [1993,ger] 48-767
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] 48-230
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Deicing compositions. Hansen, C.N., [1986,eng] 48-4273
Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272
Formulating automatic transmission fluids with improved low temperature fluidity. Watts, R.F., et al, [1991,eng] 48-3931
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] 48-2049
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] 48-2451
Interferometer measurements of O_3, HNO_3 and $ClONO_3$ over the Arctic. Von Clarmann, T., et al, [1993,eng] 48-3640
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] 48-3038
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
North Atlantic atmospheric circulation and ice cover. Mayewski, P.A., et al, [1994,eng] 48-3244
Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] 48-1753
Oxidation-reduction reactions in growing ice crystals, comment and reply. Gross, G.W., et al, [1991,eng] 48-778
Patterns of snow accumulation and O-18 in Queen Maud Land. Isaksson, E., [1991,eng] 48-1112
Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] 48-355
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] 48-1366
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Production of pour-point depressants for diesel and furnace fuels. Chesnovitskii, K.G., et al, [1993,eng] 48-981
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089
Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] 48-541
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756
Sulfate aerosols and polar stratospheric cloud formation. Tolbert, M.A., [1994,eng] 48-3734
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832
Tires with polymer composition and silica filler. Rauline, R., [1993,eng] 48-4367
See [also]: Atmospheric composition; Frozen ground chemistry; Geochemistry; Ice composition; Snow composition; Soil chemistry; Soil composition; Water chemistry

Chemical ice prevention

Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] 48-3695
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] 48-3694
Aircraft de-icing and anti-icing composition. Comeau, D., et al, [1990,eng] 48-2266
Aircraft ground deicing and anti-icing fluids. Louchez, P.R., et al, [1994,eng] 48-3111
Anti-icing compositions for e.g. aircraft wing surfaces, with increased hold over time. Ashrawi, S.S., et al, [1993,eng] 48-5519
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] 48-4959
Biodegradation of aircraft deicing fluids in soil at low temperatures. Klečka, G.M., et al, [1993,eng] 48-3265
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Device for heating aircraft deicer fluid. Hightower, E.C., [1987,eng] 48-4419
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] 48-704
Effectiveness of calcium magnesium acetate deicer. Perchanok, M.S., et al, [1992,eng] 48-3069
Field tests of liquid salt and pre-wetted salt. Raukola, T., et al, [1993,fin] 48-3067
Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base.[1991,eng] 48-3123
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
Glycol ice protection system on a general aviation airfoil. Kohlman, D.L., et al, [1981,eng] 48-1142
Heating aircraft deicer fluid. Whitmire, T.W., et al, [1987,eng] 48-4418
Highway de-icers: standards, practice and research in the Province of Ontario. Perchanok, M.S., et al, [1991,eng] 48-3068
Ice melter comprising an alpha-methyl glucoside and method of making same. Connor, M.B., et al, [1990,eng] 48-2257
Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] 48-4897
Methods and materials for snow and ice control on Swedish roads and runways. Gustafson, K., [1993,eng] 48-1193
Metro Division snow and ice research field studies 1992-1993 winter season. Barnes, M., [1993,eng] 48-4905
On the way: anti-icing instead of deicing. Mergenmeier, A., [1994,eng] 48-4256
Oregon experiments with anti-icing operations.[1994,eng] 48-4254
Performance evaluation of anti-icing pavement. Kawamura, K., et al, [1993,eng] 48-1196
Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025
Science of snow and ice (10). Inoue, M., [1987,jpn] 48-544
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids. Laforte, J.L., et al, [1994,eng] 48-3367
To salt or not to salt. What are the alternatives. Samuels, J., [1989,eng] 48-2043
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms. Hartwell, S.I., et al, [1993,eng] 48-1846
Transcription of presentations. SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993, [1993,eng] 48-1107
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017
What's new in deicing.[1994,eng] 48-4257
Wing/ground ice detection system for aircraft. Kunik, W.G., [1994,eng] 48-3109
Winning the ice war. Wilhelmsen, G., [1990,eng] 48-1922
Winter operations guidance for air carriers, and other adverse weather topics. U.S. Federal Aviation Administration, [1982,eng] 48-1144
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938
See [also]: Salting

Chemical properties

3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] 48-2584
Ab initio characterization of ClOOH: implications for atmospheric chemistry. Lee, T.J., et al, [1993,eng] 48-2316
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] 48-5497
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] 48-5477
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] 48-5483
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] 48-5480
Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] 48-5457
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] 48-5138
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] 48-4133
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] 48-4014
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Arctic stratospheric chemistry—winter 1989-90. Fiedler, M., et al, [1993,eng] 48-950
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] 48-5145
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] 48-3059
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] 48-631
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] 48-3047
Comments on paper by Bustamante et al. Leggett, D.C., [1994,eng] 48-5417
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] 48-[illegible]6
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] 48-1837
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] 48-4697
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna*. Karentz, D., et al, [1992,eng] 48-5096
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] 48-3885
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] 48-4048
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] 48-2579
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622

Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] 48-3046
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Grinding of frozen soil samples. Esala, M.J., [1994,eng] 48-5389
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] 48-5484
Halocarbons in the arctic and antarctic atmosphere. Sturges, W.T., [1993,eng] 48-3053
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] 48-3061
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] 48-3050
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] 48-2575
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] 48-2580
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] 48-5456
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] 48-5478
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] 48-629
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] 48-5146
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] 48-458
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Major results from SAGE II. Poole, L.R., et al, [1993,eng] 48-3732
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] 48-3054
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] 48-339
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Microwave sounding of antarctic stratospheric ozone content. Waters, J.W., et al, [1993,eng] 48-962
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station. Gerber, L., et al, [1994,eng] 48-5460
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] 48-3150
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] 48-2582
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] 48-3052
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] 48-3145
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin. I.M. et al, [1993,eng] 48-1888
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltiu, E., et al, [1994,eng] 48-5490
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] 48-5491
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Polar atmosphere nitrous oxide morphology during AASE II. Podolske, J.R., et al, [1993,eng] 48-2583
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] 48-3731
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] 48-3045
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] 48-3146
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of North Polar atmospheric chemistry. Douglass, A., et al, [1993,eng] 48-628
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] 48-3058
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] 48-4483
Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] 48-5453
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] 48-5485
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] 48-5482
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] 48-5492
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581

Chemical reactions
See [also]: Photochemical reactions

Chemistry
See [also]: Frozen ground chemistry; Geochemistry; Hydrogeochemistry; Soil chemistry; Water chemistry

Chernozem
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Local introduction of fertilizer. Antipina, D.K., [1988,rus] 48-912
Mikrobiologiia krioaridnykh pochv (na primere Zabaikal'ia). Nimaeva, S.Sh., [1992,rus] 48-3633

China
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] 48-1424
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
Engineering geological survey and distribution of permafrost along Qingkang Highway. Zhu, L.N., et al, [1993,chi] 48-1454
First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] 48-2017
Formation and calculation of cold region runoff in the Qilian mountains. Yang, Z.H., [1990,eng] 48-1597
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] 48-1453
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] 48-3652
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] 48-4339
Impact of ice on hydraulic structures and hydropower stations and its prevention. Li, G.F., et al, [1994,eng] 48-5553
Investigation on application of grey cognate analysis for snowmelt runoff forecast. Lan, Y.C., [1993,chi] 48-4577
Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] 48-1426
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
Prevention of frost damage to canals. Chen, X.B., [1993,eng] 48-5189
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] 48-5239
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Railway construction and environmental protection in permafrost. Zheng, Q.P., [1993,eng] 48-5263

Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost. Cheng, G.D., et al, [1993,chi] 48-4569
Snow research at Lanzhou Institute of Glaciology and Geocryology. Yang, D.Q., [1993,eng] 48-1800
Soil formation and environmental changes in China's loess. Ohmori, H., et al, [1990,jpn] 48-3425
State Key Laboratory of Frozen Soil Engineering, 1993. Lanzhou Institute of Glaciology and Geocryology, [1993,chi] 48-2130
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] 48-4754
Study and development of the techniques against frost damage of hydraulic structures. Xu, B.M., et al, [1993,eng] 48-5254
—Altai Mountains
Landform and origin of Hanasi Lake, Altay Mountains. Feng, M., [1993,chi] 48-4588
Quaternary glaciations in the Altai Mountains of China. Cui, Z.J., et al, [1992,chi] 48-2014
—Anhui Province
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] 48-2016
—Beijing
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing. Guo, X.D., et al, [1993,chi] 48-4590
Periglacial period and Pleistocene natural environment of Western Mountains of Beijing. Guo, X.D., [1993,eng] 48-5208
—Bohai Sea
Effect of Bohai ice crushing strength on vertical structures. Zhang, M.Y., et al, [1993,chi] 48-2096
Ice observation on a platform in Bohai Sea. Yue, Q.J., et al, [1994,eng] 48-5557
Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] 48-1064
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] 48-3462
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
—Daqing
Research of frost heave property of soil in Daqing region. Jang, H.J., et al, [1993,eng] 48-405
—Gansu Province
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] 48-5260
—Greater Khingan Range
Drilling characteristics of engineering geology of permafrost in Da Hinggan Ling region. Qiu, X.Q., [1993,chi] 48-4509
Drilling characteristics of engineering geology of permafrost on Da Hinggan Ling region. Zou, X.Q., [1993,eng] 48-5267
Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] 48-498
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] 48-508
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] 48-476
Ice wedges in northeastern China. Tong, B.L., [1993,eng] 48-466
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429
Permafrost and ground water in the Greater Khingan Range. Yuan, H.Y., et al, [1993,chi] 48-4490
Permafrost and groundwater in the Greater Khingan Range. Yuan, H.Y., et al, [1993,eng] 48-5259
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] 48-425
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] 48-387
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] 48-5225
Repair of pavement distress in permafrost. Luo, W.Q., [1993,chi] 48-4504
Road design and renovations of the north slope in Da Hinggan Ling. Luo, W.Q., [1993,eng] 48-5227
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] 48-421
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256
—Heilong River
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] 48-493
—Heilongjiang Province
Frigid zone ice dike prediction system. Wang, X.R., et al, [1994,eng] 48-5604
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216
Geographic boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,chi] 48-4488
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] 48-5226
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] 48-4493
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Research of the frostheaving project survey. Huang, J.S., [1993,chi] 48-4581
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] 48-4494
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] 48-5217
Traffic and transport on ice cover in Nenjiang River. Xu, B.M., et al, [1992,chi] 48-2018
—Henerguna River
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
—Hubei Province
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,chi] 48-4489
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,eng] 48-5265
—Inner Mongolia
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,chi] 48-4491
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,eng] 48-5264
Geographic boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,chi] 48-4488
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] 48-5226
Holocene periglacial processes in Inner Mongolia. Cui, Z.J., et al, [1992,chi] 48-2012
Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] 48-369
Recent discovery of periglacial phenomena in Inner Mongolia. Wang, Z.Y., et al, [1993,eng] 48-5249
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247
—Kunlun Mountains
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains. Cao, Z.T., [1993,chi] 48-4591
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] 48-2095
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region. Zhang, X.P., et al, [1993,chi] 48-4574
—Kunlun Shan
Loess and its climate records in Kunlun Shan region since the late Pleistocene. Zhao, X.F., et al, [1993,eng] 48-504
—Lanzhou
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] 48-5224
—Liaodong Bay
Observation of drift ice and salt field in the Liaodong Bay, China, by MOS-1/MESSR. Ogata, S., [1998,eng] 48-4870
—Mahan Mountain
Permafrost in the loess plateau of China and its relationship to the environment. Li, Z.F., [1993,eng] 48-884
—Qilian Mountains
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] 48-2015
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
—Qinghai
Effect of lake proximity on permafrost formation. Wu, Q.B., et al, [1993,eng] 48-485
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] 48-494
—Qinghai Plateau
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] 48-4260
—Qinghai-Xizang Plateau
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] 48-368
Air pollution and atmospheric environmental effects. Qiu, Q., et al, [1992,chi] 48-1485
Air pollution and the air purity conditions in Wudaoliang region. Wen, J., et al, [1992,chi] 48-1486
Air pollution on the Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1482
Atmospheric circulation and weather and climate background in the Wudaoliang region. Jiang, H., et al, [1992,chi] 48-1484
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway. Wang, S.L., et al, [1993,chi] 48-4589
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1487
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Culvert engineering in the permafrost region of Qinghai- Xizang Plateau. Zhang, J.Z., et al, [1993,chi] 48-4502
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,eng] 48-5261
Degradation and protection of grassland on the Qinghai-Tibet Plateau. Yang, D.G., [1992,eng] 48-4411
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] 48-1492
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] 48-1493
Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] 48-1490
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] 48-1491
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Frozen ground database system for the Qinghai-Xizang Plateau. Xia, Z.Y., [1992,chi] 48-1489
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] 48-2131
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] 48-5201
Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway. Zhao, X.F., [1992,chi] 48-1488
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] 48-4394
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] 48-5223
Permafrost change for asphalt pavement along Qinghai-Xizang highway. Wang, S.L., et al, [1993,eng] 48-5245
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] 48-401
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology. Xu, Q.Q., [1993,chi] 48-4572
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province. Li, S.J., et al, [1992,chi] 48-2011
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] 48-5183
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] 48-1483
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] 48-1718
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388
—Sichuan Province
Developing conditions, amounts and distributions of glaciers in Gongga Mountains. Su, Z., et al, [1993,chi] 48-4587
—Tian Shan
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] 48-503
Denudation rate by gelifraction in Tian Shan. Liu, G.N., et al, [1992,chi] 48-2013
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Formation and distribution of the sorted circles at the head area of Urumqi River. Liu, G.N., et al, [1993,chi] 48-4576
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] 48-423
Geocryology in Mt. Tianshan. Gorbunov, A.P., [1993,eng] 48-5206
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake. Qiu, G.Q., et al, [1993,eng] 48-2134
Investigations of the precipitation conditions in the central part of the Tianshan mountains. Blumer, F.P., [1990,eng] 48-1566
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] 48-507
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] 48-5202
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] 48-4487
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] 48-1598
Snow and permafrost in the Tian Shan Mountains. Hu, R.J., et al, [1993,eng] 48-5215
Sorted circles in an empty cirque at the head of the Urumqi River. Xiong, H.G., et al, [1993,eng] 48-5253
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] 48-1855
—Xinjiang
Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] 48-5230

Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] **48-406**

—Xizang

Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] **48-4582**

—Yellow River

Ice jam breakup flood discharge on the Yellow River. Yang, L.F., et al, [1994,eng] **48-5542**

Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] **48-1549**

Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] **48-5600**

Chlorinity

See [also]: Chemical properties

Chlorophylls

Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] **48-133**

Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] **48-3201**

Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] **48-3607**

Chukchi Sea

Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] **48-4993**

Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] **48-787**

Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] **48-1478**

Coupled ice-ocean model of the Beaufort and Chukchi Seas. Hedstrom, K.S., et al, [1993,eng] **48-791**

Dry coastal ecosystems of Alaska. Batten, A.R., et al, [1993,eng] **48-1124**

First Soviet-American oceanographic expedition in the Chukchi Sea (CHOEX/ICE-90). Sen'ko, N.P., [1992,eng] **48-737**

Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] **48-3458**

Petroleum potential of the Beaufort and Chukchi Seas. Cooke, L.W., [1993,eng] **48-788**

Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] **48-794**

Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] **48-2704**

Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskii, S.M., et al, [1993,eng] **48-4532**

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] **48-4555**

Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] **48-1062**

Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] **48-653**

Circulation

See [also]: Atmospheric circulation; Drift; Ocean currents; Tidal currents

Cirque glaciers

Avalanche activity in Tuckerman Ravine. Boyne, H., [1994,eng] **48-3274**

French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] **48-4094**

Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] **48-5179**

Cirques

Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] **48-3650**

Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] **48-4987**

Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] **48-3343**

Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] **48-3232**

Sorted circles in an empty cirque at the head of the Urumqi River. Xiong, H.G., et al, [1993,eng] **48-5253**

Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] **48-3342**

CIS

Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] **48-2744**

Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States. Krasiuk, V.S., et al, [1992,rus] **48-1954**

—Dnepr River

Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] **48-1952**

—Don River

Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] **48-1952**

—Volga River

Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] **48-1952**

City planning

See [also]: Urban planning

Classifications

Accident classification in the Arctic. Frimodt-Møller, B., et al, [1992,eng] **48-4963**

Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] **48-2833**

Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] **48-5002**

Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] **48-2670**

Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] **48-937**

Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] **48-205**

Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] **48-5130**

Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] **48-1651**

Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] **48-3229**

Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] **48-4055**

Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] **48-4293**

Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] **48-2394**

Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] **48-4011**

Classification of meadow communities of the tundra zone on the Taymyr Peninsula: the *Pediculari verticillatae-Astragaletum arctici* association. Zanokha, L.L., [1993,rus] **48-1643**

Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] **48-5321**

Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] **48-2886**

Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] **48-1353**

Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] **48-199**

Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] **48-4481**

Double-moment multiple-phase four-class bulk ice scheme. Part I: description. Ferrier, B.S., [1994,eng] **48-3808**

Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] **48-2518**

Epidemiology of injuries in northern areas. Middaugh, J., [1992,eng] **48-4962**

Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] **48-2860**

Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] **48-5028**

Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] **48-4613**

Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] **48-2541**

Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] **48-638**

Flowering phenology in tundra plants. Molau, U., [1993,eng] **48-2423**

Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] **48-498**

Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] **48-2697**

Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] **48-3608**

Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] **48-4100**

Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] **48-3652**

Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] **48-1280**

Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] **48-3762**

Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] **48-2368**

Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] **48-1244**

Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] **48-131**

Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] **48-4832**

Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] **48-4111**

Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] **48-2106**

Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] **48-84**

Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] **48-2878**

Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] **48-5003**

Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] **48-67**

Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] **48-1833**

Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] **48-81**

Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] **48-1302**

Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] **48-1880**

Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] **48-4992**

Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] **48-2861**

Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] **48-2613**

Multi-lingual index of permafrost terms. Van Everdingen, R.O., [1993,eng] **48-470**

New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] **48-2102**

New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] **48-4292**

NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] **48-1097**

Northern and southern hemispheric polar lows—a comparative study. Rasmussen, E.A., [1993,eng] **48-2101**

On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] **48-206**

Overview of research on snow in Alaska. Mason, C.S., [1993,eng] **48-1801**

Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] **48-208**

Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] **48-1882**

Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] **48-3895**

Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] **48-2565**

Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] **48-1888**

Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] **48-5001**

Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] **48-942**

Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] **48-4996**

Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] **48-4647**

Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] **48-2107**

Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] **48-3757**

Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] **48-4833**

Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] **48-2325**

Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] **48-2539**

Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] **48-5640**

Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] **48-4412**

Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] **48-5396**

Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] **48-1761**

Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] **48-4603**

SAR application calibration requirements. Brown, R.J., et al, [1993,eng] **48-1511**

Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] **48-1298**

Sea ice altimeter processing scheme at the EODC. Laxon, S.W., [1994,eng] **48-4036**

Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] **48-2086**

Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] **48-4034**

Single scattering by non-spherical ice particles. Macke, A., [1993,eng] **48-2991**

Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] **48-3892**

SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] **48-2631**

Snow avalanches in Iceland, winter 1988-89. Magnússon, M.M., [1991,ice] **48-5294**

Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] **48-5136**

Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] **48-4371**

Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] **48-4965**

Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] **48-1156**

Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] **48-2385**

Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] **48-4628**

Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] **48-1331**

Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] **48-931**

Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] **48-1744**

Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] **48-4627**

Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] **48-3609**

Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
See [also]: Landscape types; Soil classification
Clathrates
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Calculation of the vapor-saturated liquidus for the NaCl-CO2-H2O system. Barton, P.B., et al, [1993,eng] 48-1769
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] 48-3618
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] 48-3219
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Glaciological survey of clathrate hydrates. Hondoh, T., [1993,jpn] 48-3176
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] 48-1612
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261
Clay minerals
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Clay soils
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] 48-2016
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Heat and mass transfer in frozen saline kaolin. Xu, X.Z., et al, [1992,chi] 48-2009
Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] 48-1408
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Overburden pressure and ice formation in clay. Wang, J.C., et al, [1993,chi] 48-1433
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Primary study on interface conditions of ice-saturated clay. Xu, X.Z., et al, [1992,chi] 48-1409
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530
Clays
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Construction in polar regions using local raw materials. Cherskii, I.N., et al, [1994,eng] 48-3948
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] 48-478
Climate
Climates of the world. Martyn, D., [1992,eng] 48-2709
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] 48-2974
Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] 48-1869
Metal and alloy corrosion at Mirnyy Station. Mikhailov, A.A., et al, [1993,eng] 48-2312
Thin ice cap instability (TICI). Matteucci, G., [1993,eng] 48-2678
See [also]: Indoor climates
Climate control
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845
Climatic changes
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] 48-4643
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] 48-2033
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] 48-2593
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] 48-285
Arctic and alpine biodiversity: patterns, causes and ecosystem consequences. Chapin, F.S., III, et al, [1994,eng] 48-4163
Arctic marine ecosystems. Alexander, V., [1992,eng] 48-1261
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] 48-1230
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Australian snowfields past and present. Galloway, R.W., [1986,eng] 48-203
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Biennial report 1991/92. Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials, [1993,ger] 48-3646
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Can sea ice be responsible for climate change?. Zakharov, V.F., [1992,eng] 48-733
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] 48-4822
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] 48-4197
Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] 48-4975
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1487
Climate change and methane. Nisbet, E.G., [1990,eng] 48-1812
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Climate change in continental isotopic records. Swart, P.K., ed, et al, [1993,eng] 48-1494
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Climate change—its possible impact on the environment and the people of northern regions. Roots, E., [1992,eng] 48-2037
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] 48-4194
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] 48-2720
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] 48-2569
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] 48-503
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes. Webb, T., III, et al, [1993,eng] 48-2978
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] 48-4113
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps). Todaro, C., [1993,ita] 48-4114
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5065
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] 48-1311
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] 48-1233
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] 48-4568
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Correlations between climate records from North Atlantic sediments and Greenland ice. Bond, G., et al, [1993,eng] 48-335
Cryolithozone as an indicator of current climate change (Western Siberia). Shpolianskaia, N.A., [1992,rus] 48-4777
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Duration of navigation without icebreakers on the Northern Sea Route. Buzuev, A.IA., [1994,eng] 48-5572
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] 48-451
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] 48-952
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Effect of global climate changes on the cryolithozone of Chukotka. Kotov, A.N., [1992,rus] 48-4776
Effect of global climate changes on the cryolithozone. Gavrilova, M.K., [1992,rus] 48-4773
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] 48-2019
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] 48-441
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] 48-2458
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores. Taylor, K.C., et al, [1993,eng] 48-1899
End of the ice age. Nisbet, E.G., [1990,eng] 48-1747
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Errata. Global warming: a polar approach. Wadhams, P., [1992,eng] 48-1535
Estimating ice-sheet response to climate change. Hindmarsh, R.C.A., [1992,eng] 48-784
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] 48-4971
Evidence from Hudson Bay region of severe cold in the summer of 1816. Catchpole, A.J.W., [1985,eng] 48-2722
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Exploring the southern ocean response to climate change. Final report. Martinson, D.G., et al, [1993,eng] 48-3817
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] 48-1793
Fluctuations of the atmospheric circulation and climate changeability of polar regions. Vanda, IU.A., et al, [1994,eng] 48-3849

French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] 48-4094
Future climate changes and permafrost. Gavrilova, M.K., [1992,rus] 48-4774
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Geographic boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,chi] 48-4488
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] 48-5226
GISP2 completes coring of Greenland ice sheet. Morrison, M.C., [1993,eng] 48-773
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] 48-4970
Glacial ice cores: a window on the past. Saunders, A., et al, [1990,eng] 48-1877
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] 48-2661
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] 48-1797
Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] 48-2572
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] 48-2669
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] 48-4485
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] 48-2286
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
Global change policy for Alaska. Cole, H., [1992,eng] 48-2042
Global climate models and Antarctica. Connolley, W.M., [1992,eng] 48-783
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] 48-2974
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] 48-2036
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Global warming on trial. Broecker, W.S., [1992,eng] 48-1611
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] 48-2035
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskiĭ, M., et al, [1994,eng] 48-5370
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662
Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] 48-604
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Holocene periglacial processes in Inner Mongolia. Cui, Z.J., et al, [1992,chi] 48-2012
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] 48-2054
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] 48-3044
Ice age paleotopography. Peltier, W.R., [1994,eng] 48-5106
Ice and climate studies. Oerlemans, J., [1989,eng] 48-223
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308
Ice sheets, wayward winds and sea change. Lehman, S., [1993,eng] 48-333
Ice shelves on the Antarctic Peninsula: changing climate and sea level. Vaughan, D.G., [1992,eng] 48-785
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] 48-2030
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] 48-5369
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] 48-3553
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Isotope shifts reflect Greenland moisture source changes. Charles, C.D., et al, [1994,eng] 48-2667
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] 48-1495
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] 48-692
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] 48-4108
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] 48-1007
Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] 48-2878
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] 48-2723
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] 48-2422
Loess and its climate records in Kunlun Shan region since the late Pleistocene. Zhao, X.F., et al, [1993,eng] 48-504
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] 48-1053
Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] 48-5571
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskiĭ, D.A., et al, [1993,eng] 48-518
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] 48-1677
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] 48-4195
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877
Modulation of the atmospheric annual cycle in the Southern Hemisphere. Hurrell, J.W., et al, [1994,eng] 48-4927
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] 48-1794
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] 48-3150
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] 48-4204
North Atlantic atmospheric circulation and ice cover. Mayewski, P.A., et al, [1994,eng] 48-3244
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] 48-2566
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Numerical simulation of the climatic change caused by CO2 doubling. Wang, H.J., et al, [1993,eng] 48-768
Numerical simulation of the ice age climate. Wang, H.J., et al, [1993,eng] 48-3221
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] 48-1861
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] 48-5230
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972
Periglacial geomorphology in the 21st century. Barsch, D., [1993,eng] 48-4941
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] 48-5181
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Permafrost and climatic change: an annotated bibliography. Koster, E.A., et al, [1994,eng] 48-5434
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] 48-387
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] 48-2468
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] 48-4105
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation. Weaver, A.J., et al, [1994,eng] 48-2913
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] 48-5183
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836

Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] 48-2846
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] 48-3139
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Sea ice and climatic change in the Canadian Arctic since 1800. Dunbar, M., [1985,eng] 48-2721
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] 48-5418
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] 48-3256
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] 48-1312
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] 48-1787
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] 48-1799
Statistical detection of climate change. MacNeil, I.B., [1993,eng] 48-1798
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Stratospheric ozone and solar radiative climate forcing. Haigh, J.D., [1994,eng] 48-5323
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4373
Synchronous changes in atmospheric CH4 and Greenland climate between 40 and 8 kyr bp. Chappellaz, J.A., et al, [1993,eng] 48-1668
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] 48-1325
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Terrestrial component of the cryosphere. Mel'nikov, P.A., et al, [1993,eng] 48-2705
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] 48-1330
U.S. arctic research in a technological age. Johnson, P.L., [1992,eng] 48-2041
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Understanding the "cryolithosphere" and the dynamics of its development. Shepelev, V.V., [1992,rus] 48-4775
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] 48-5574
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Volcanic record in a Greenland ice core. Zielinski, G.A., et al, [1994,eng] 48-3941
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] 48-1507
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935
Younger Dryas Age advance of Franz Josef Glacier. Denton, G.H., et al, [1994,eng] 48-4926
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

Climatic extremes
See [also]: Records (extremes)

Climatic factors
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] 48-2593
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
Climates of the world. Martyn, D., [1992,eng] 48-2709
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] 48-4060
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] 48-3047
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] 48-1749
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Dynamics of the elements of climate and the strength of the active layer in western Yakutia. Vasil'ev, I.S., [1992,rus] 48-4779
Early Pliocene climate and ice-sheet modeling. Prentice, M.L., et al, [1992,eng] 48-2617
Effect of global climate changes on the cryolithozone of Chukotka. Kotov, A.N., [1992,rus] 48-4776
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Flowering phenology in tundra plants. Molau, U., [1993,eng] 48-2423
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Future climate changes and permafrost. Gavrilova, M.K., [1992,rus] 48-4774
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] 48-2783
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] 48-4186
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] 48-4260
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Modelling of glacier mass balance. Oerlemans, J., [19[illegible]3,eng] 48-4183
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
Overview of large scale effects of seasonal snow cover. Li, P.J., [1993,chi] 48-4593
Overview of research on snow in Alaska. Benson, C.S., [1993,eng] 48-1801
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] 48-2417
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] 48-401
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] 48-356
Permafrost in the north of Korean peninsula. An, V., [1993,eng] 48-511
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] 48-2589
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991, [1993,ita] 48-4091
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering. Hall, K.J., [1993,eng] 48-390
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] 48-5132
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow cover and climate. Cohen, J., [1994,eng] 48-4768
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] 48-446
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Spatial temperature and accumulation rate variations in the Antarctic Peninsula. Peel, D.A., [1992,eng] 48-781
Surface mass balance of the Antarctic Peninsula ice sheet. Frolich, R.M., [1992,eng] 48-780
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] 48-2545
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4055
Understanding the "cryolithosphere" and the dynamics of its development. Shepelev, V.V., [1992,rus] 48-4775
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] 48-2416

Climatology
1990 temperature and precipitation during Northern Wetlands Study. Mortsch, L.D., [1994,eng] 48-4602
1994 IASC meeting report. International Arctic Science Committee, [1994,eng] 48-4644
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] 48-1795
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] 48-2593
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Antarctic climate of the UKMO Unified Model. Connolley, W.M., et al, [1994,eng] 48-3041
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] 48-287
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] 48-4975
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820

Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] **48-2513**
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] **48-4194**
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] **48-4701**
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] **48-2744**
Climates of the world. Martyn, D., [1992,eng] **48-2709**
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] **48-195**
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] **48-2569**
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] **48-4113**
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] **48-5321**
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] **48-5307**
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps). Todaro, C., [1993,ita] **48-4114**
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] **48-2336**
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] **48-3047**
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] **48-4016**
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] **48-4474**
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] **48-199**
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] **48-1805**
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] **48-3937**
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] **48-1791**
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] **48-222**
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] **48-2596**
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] **48-959**
Dangers of multiyear averaging in analyses of long-term climate trends. Parkinson, C.L., [1989,eng] **48-2362**
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] **48-1808**
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] **48-1792**
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] **48-4088**
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] **48-338**
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] **48-1676**
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] **48-2366**
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] **48-2428**
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] **48-4048**
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] **48-5028**
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] **48-4844**
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] **48-4971**
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] **48-3046**
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] **48-1793**
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] **48-2388**
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] **48-5318**
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] **48-4970**
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] **48-1797**
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] **48-4485**
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] **48-1280**
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] **48-4106**
Ice and climate studies. Oerlemans, J., [1989,eng] **48-223**
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] **48-2557**
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] **48-4846**
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] **48-5369**
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] **48-5372**
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] **48-4108**
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] **48-1807**
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] **48-3728**
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] **48-3509**
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] **48-5437**
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] **48-612**
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] **48-3500**
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] **48-4847**
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] **48-4848**
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] **48-1815**
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] **48-3037**
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] **48-4849**
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] **48-987**
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] **48-988**
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] **48-1677**
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] **48-3729**
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] **48-1794**
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] **48-1788**
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] **48-5368**
Need for removing biases from rain and snowgage measurements. Legates, D.R., [1993,eng] **48-1804**
Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] **48-1789**
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] **48-340**
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] **48-4450**
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] **48-2890**
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] **48-4972**
Periodic temperature inversions in the arctic troposphere. Nagurnyi, A.P., et al, [1993,eng] **48-1825**
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] **48-4132**
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] **48-4700**
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] **48-1292**
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] **48-4177**
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] **48-3045**
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] **48-5045**
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] **48-1618**
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] **48-1425**
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] **48-3146**
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] **48-4203**
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] **48-3727**
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] **48-5418**
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] **48-1802**
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] **48-5132**
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] **48-3256**
Snow cover and climate. Cohen, J., [1994,eng] **48-4768**
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] **48-1803**
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] **48-1796**
Snow research at Lanzhou Institute of Glaciology and Geocryology. Yang, D.Q., [1993,eng] **48-1800**
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on-the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] **48-1787**
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] **48-1602**
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] **48-2892**
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] **48-1799**
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] **48-614**
Statistical detection of climate change. MacNeil, I.B., [1993,eng] **48-1798**
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] **48-4373**
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] **48-1023**
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] **48-4652**
Temperature conditions in Iceland 1901-1990. Einarsson, M.A., [1991,eng] **48-5291**
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] **48-1790**
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] **48-4210**
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] **48-1835**
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] **48-191**
Ultraviolet radiation in Antarctica: measurements and biological effects. Weiler, C.S., ed, et al, [1994,eng] **48-4379**
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] **48-1816**

See [also]: Microclimatology; Paleoclimatology

Clothing

Cold weather breathing mask. Adams, W.R., [1990,eng] **48-2173**
Hybrid electronic control system and method for cold weather garment. Batcheller, B.D., et al, [1991,eng] **48-2250**
Pedestrian anti-skid winter footwear. Gard, G., et al, [1994,eng] **48-3947**
Personal Arctic Survival Kit (PASK) field trials. Dick, R.A., et al, [1992,eng] **48-5104**
Protective clothing against cold. Holmér, I., [1992,eng] **48-4968**
Review of footwear for cold/wet scenarios. Part I: the boot. Dyck, W., [1992,eng] **48-4750**
Simulation of the effect of wind on clothing by measurements and calculations. Anttonen, H., et al, [1993,eng] **48-4902**
Test plan for military skis and bindings. Hoger, S.E., et al, [1993,eng] **48-1770**
Thermal insulation for cold climate clothing. Miller, S.D., [1987,eng] **48-4900**
Thermal protectiveness of electrically heated clothing and boots. Hickey, C.A., Jr., et al, [1993,eng] **48-4753**
Wind-induced heat transfer through permeable clothing. Kind, R.J., et al, [1993,eng] **48-874**

Cloud chambers

Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] **48-992**
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] **48-71**
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] **48-2512**
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] **48-2556**

Cloud cover

Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] **48-4831**
Aircraft icing environment in wintertime, low ceiling conditions. Guttman, N.B., et al, [1985,eng] **48-5100**
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] **48-856**
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] **48-3697**
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] **48-4015**
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] **48-3537**
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] **48-1344**
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] **48-3665**
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] **48-5133**
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] **48-3229**
Cape Cod snowstorm. Ruminski, M., [1994,eng] **48-2761**
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] **48-1308**
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] **48-4016**
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] **48-4474**
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] **48-2886**
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] **48-1353**
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] **48-992**
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] **48-1805**
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] **48-3075**

Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] 48-3758
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] 48-5028
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] 48-1475
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] 48-3733
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Northern and southern hemispheric polar lows—a comparative study. Rasmussen, E.A., [1993,eng] 48-2101
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] 48-4708
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] 48-1323
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] 48-3256
Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] 48-4874
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Study of cloud and snow cover over Kinki district, west Japan. Inoue, J., [1990,eng] 48-4873
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072

Cloud droplets

Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] 48-856
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] 48-4853
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Phase change from cloud droplets to snow particles. Wada, M., [1993,eng] 48-1680
Snowfall rate and supercooled liquid water content. Adams, W.M., et al, [1993,eng] 48-1725
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] 48-826

Cloud electrification

Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] 48-4853
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] 48-71
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4851
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Oxidation-reduction reactions in growing ice crystals, comment and reply. Gross, G.W., et al, [1991,eng] 48-778
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] 48-209
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] 48-983
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854

Cloud height indicators

Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743

Cloud physics

3-dimensional scattering functions of ice crystals and depolarization effects. Rockwitz, K.D., [1989,eng] 48-1473
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] 48-3059
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] 48-4474
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] 48-992
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] 48-229
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] 48-4697
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] 48-5028
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] 48-4853
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] 48-2369
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] 48-3730
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Icing relevant parameters from sounding of stratiform clouds. Hoffmann, H.E., et al, [1990,ger] 48-4862
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] 48-4441
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] 48-71
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4851
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] 48-4694
Light scattering by finite hexagonal crystals arbitrarily oriented in space. Brogniez, G., [1989,eng] 48-1477
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] 48-339
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500

Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Modeling of cirrus bidirectional reflectances. Brogniez, G., et al, [1993,eng] 48-2988
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Modelling cirrus optical properties. Hess, M., et al, [1993,eng] 48-2990
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Nucleation of ice. Vali, G., [1991,eng] 48-1119
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] 48-2493
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] 48-5119
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] 48-1213
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Scattering of electromagnetic radiation by atmospheric ice crystals. Macke, A., [1991,ger] 48-4865
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] 48-2992
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Single scattering by non-spherical ice particles. Macke, A., [1993,eng] 48-2991
Small-angle light scattering by crystalline particles within clouds. Shifrin, K.S., et al, [1989,eng] 48-1474
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] 48-983
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Studies of cubic ice crystals. Finnegan, W.G., et al, [1991,eng] 48-4755
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Cloud seeding
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] 48-2369
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice-forming properties of organic reagents. IAtsimirskiĭ, V.K., et al, [1989,eng] 48-3748
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470
Nucleation of ice. Vali, G., [1991,eng] 48-1119
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
See [also]: Fog dispersal; Hail prevention; Weather modification

Cloud seeding generators
See [also]: Smoke generators

Clouds (meteorology)
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Chlorine activation during polar night. Müller, R., et al, [1993,eng] 48-3639
Cirrus ice crystal measurements. Matrosov, S.Y., [1993,eng] 48-3644
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Development of automatic antenna elevation angle setting at Doppler radar observation. Oi, M., [1992,jpn] 48-3217
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] 48-740
Ice particles in noctilucent clouds. Sugiyama, T., [1994,eng] 48-3634
Ice water content in cirrus clouds. Brown, P.R.A., [1993,eng] 48-2555
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Measuring precipitation over the ocean. Bauer, P., et al, [1993,eng] 48-3645
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] 48-4384
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Role of clouds and ozone on spectral ultraviolet-B radiation. Gautier, C., et al, [1994,eng] 48-4385
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Solar ultraviolet irradiance at Palmer Station, Antarctica. Frederick, J.E., et al, [1994,eng] 48-4383
Spectroscopic detection of molecular hydrogen frozen in interstellar ices. Sandford, S.A., et al, [1993,eng] 48-769
Stratospheric volcanic aerosols and PSCs over Spitsbergen. Beyerle, G., [1994,eng] 48-3925
Sulfate aerosols and polar stratospheric cloud formation. Tolbert, M.A., [1994,eng] 48-3734
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772
See [also]: Hail clouds; Supercooled clouds

Coagulation
Modification of physical properties of natural obscurants. Hogan, A.W., [1993,eng] 48-3032
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
Reactive transport of suspended particles: mechanisms and modeling. Mercier, R.S., [1985,eng] 48-4895

Coal
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Problems of power and transport industries in the Asian polar regions of Russia. Bredikhin, V.I., et al, [1994,eng] 48-3949
Spring thaw in the land of Cold War coal. Abbott, S., [1993,eng] 48-1648

Coalescence
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058

Coastal topographic features
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon. Enoki, K., et al, [1993,eng] 48-154
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Stabilisation of the tidal entrance at Hornafjordur, Iceland. Viggosson, G., et al, [1993,eng] 48-157
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
See [also]: Shoreline modification

Coasts
See [also]: Banks (waterways); Beaches; Shores

Coatings
See [also]: Protective coatings

Codes
See [also]: Building codes; Standards

Cohesion
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects. Lee, W.J., [1994,eng] 48-3544

Cold brittleness
See [also]: Brittleness

Cold chambers
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] 48-2468

Cold deserts
See [also]: Deserts

Cold storage
Calmac ice storage test report. Stovall, T.K., [1991,eng] 48-3676
Cold storage system. Furuhama, K., [1991,eng] 48-2232
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Economics of snow use (storing vegetables in snow). Hatori, A., [1988,jpn] 48-655
Grinding of frozen soil samples. Esala, M.J., [1994,eng] 48-5389
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Regional implementation and industrial use of snow. Yamamura, E., [1986,jpn] 48-30
Simple snow storage method. Muramatsu, K., [1988,jpn] 48-656

Cold stress
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4362
Cold climate effects on composite materials—preliminary results. Varna, J., et al, [1994,eng] 48-3979
Cold stress and cold adaptation. Budd, G.M., [1993,eng] 48-3738
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] 48-1758
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] 48-3606
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Protective clothing against cold. Holmér, I., [1992,eng] 48-4968
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] 48-4834

Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] 48-3429
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] 48-720

Cold tolerance

Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937
Antioxidant response and winter hardiness in red spruce (*Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] 48-4284
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] 48-133
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] 48-2559
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] 48-1252
Crop cold-resistant appraisal principles and appraisal technology system research. Zhao, Y.T., et al, [1993,chi] 48-4508
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil. Nelson, L.M., et al, [1978,eng] 48-3410
Effects of freeze-thaw stress on bacterial populations in soil microcosms. Morley, C.R., et al, [1983,eng] 48-3411
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] 48-1028
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et al, [1993,eng] 48-3936
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] 48-2156
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] 48-1253
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] 48-2468
Protein changes and functions during cold acclimation of winter wheat. Zhao, Y.T., et al, [1993,eng] 48-505
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Room temperature isolations of low temperature microfungi. Carreiro, M.M., et al, [1992,eng] 48-3409
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134

See [also]: Acclimatization; Viability

Cold weather concreting

See [also]: Winter concreting

Cold weather construction

Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Arctic and subarctic construction foundations for structures.[1983,eng] 48-762
Arctic and subarctic construction: utilities.[1987,eng] 48-1141
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117
Basic considerations for the structural designer of buildings located in cold regions. Berretti, M.R., [1994,eng] 48-3348
Boring new ground.[1994,eng] 48-3786
Building construction on permafrost foundations. Goncharov, IU.M., [1993,eng] 48-519
Building the DEW line. Walker, C.W., [1957,eng] 48-289
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] 48-439
Challenges within oil and gas exploration and production in arctic regions. Usterud, O., et al, [1994,eng] 48-5562
Change in the concept of foundation building in the cryolithozone in connection with climate warming. Rastegaev, I.K., [1992,rus] 48-4778
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Cold climate HVAC '94. International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994, [1994,eng] 48-3841
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] 48-4236
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Construction and methods of erecting hydrotechnical structures in the northern zone. Erakhtin, B.M., [1993,rus] 48-1522
Construction calculation for freeze and thaw depths in soils.[1988,eng] 48-763
Construction heat engineering. Russia. Gosudarstvennyĭ komitet po delam stroitel'stva, [1986,rus] 48-1286
Construction in polar regions using local raw materials. Cherskiĭ, I.N., et al, [1994,eng] 48-3948
Construction material for the new central building at Showa Station. Hannuki, T., et al, [1993,jpn] 48-2877
Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] 48-402
Construction of highways and airports on permafrost. Davydov, V.A., [1993,rus] 48-1523
Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] 48-1182
Construction of the new Neumayer Station in Antarctica. Enss, D., [1992,ger] 48-3243
Construction on the DEW line. Cheever, M.S., [1957,eng] 48-291
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskiĭ, V.N., [1982,rus] 48-1287
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Design and construction of short range radar stations in the Canadian Arctic. Sanderson, K.J., [1994,eng] 48-3350
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] 48-3390
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Design of terraced houses for cold climate. Kalabin, A.V., [1994,eng] 48-3880
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] 48-3029
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] 48-1264
DEW line's construction seasons. Cheever, M.S., [957,eng] 48-288
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] 48-1103
Distinguishing features of pipeline construction in arctic regions. Kharionovskiĭ, V.V., [1994,eng] 48-3990
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] 48-3404
External design of houses in a cold and snow-fall region in the Tohoku District. Hirai, K., [1993,jpn] 48-1982
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost protected shallow foundations and freezing index climatography for residential construction. Crandell, J.H., et al, [1994,eng] 48-3398
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] 48-1453
Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] 48-409
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] 48-536
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Heat transfer in translucent enclosed structures. Drozdov, V.A., et al, [1986,rus] 48-1288
Heating and ventilation systems for industrial buildings. Finkel'shtein, S.M., [1994,eng] 48-3861
HVAC technology and trade in Russia and other East European countries. Tabunshchikov, IU.A., [1994,eng] 48-3855
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskiĭ, I.N., ed, [1991,rus] 48-1910
Investigation of the roof shape and roofing materials of wooden houses in Sapporo. Hoshino, M., et al, [1993,jpn] 48-1990
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994, [1994,eng] 48-4404
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
Method of making an integral heater for composite structure. Bayless, J.D., Jr., et al, [1990,eng] 48-2267
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
New course in management of cold regions construction. Bennett, F.L., [1993,eng] 48-4935
New heating concept for Inuit housing. Lim, H.T., [1979,eng] 48-4143
New method for estimating the heat effectiveness of a building in extreme climatic conditions. Brodach, M.M., et al, [1994,eng] 48-3874
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
Norman Wells air terminal building. Brown, K., et al, [1994,eng] 48-3349
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468
Positioning of houses on lots in snow districts. Fukazawa, D., [1993,jpn] 48-1985
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] 48-495
Procedures for building open irrigation channels with a high ground ice level. Ugarov, I.S., [1992,rus] 48-4787
Prospective railroad construction under the Bering Strait. Kudoiarov, L.I., [1994,eng] 48-4771
Providing tower cranes for construction sites in cold climate areas. Nevzorov, L.A., [1993,rus] 48-744
Qualities of home and work place achievable in intelligent buildings in cold climates. Kainlauri, E.O., [1994,eng] 48-3878
Rule-based assembly of architectural details for cold climates in three-d...ensions. Seebohm, T., [1994,eng] 48-3882
Safe water for villages of the North Slope Borough. Shillington, E.I., et al, [1994,eng] 48-3376
Sawauchi Village Institute of Snow Country Culture. Takahashi, T., [1989,jpn] 48-673
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] 48-467
Simplified ventilation system Thermonet. Hyvärinen, K., [1994,eng] 48-3872
Siting the DEW line radar stations. Brannian, J.D., [1957,eng] 48-290
Snowdrifts and the differential settlement of buildings (1). Yamanashi, M., et al, [1993,jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2). Hannuki, T., et al, [1993,jpn] 48-2001
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Solution to problems in mining ore deposits in the North. Grinev, V.G., [1992,rus] 48-652
Special demands for ventilation system and product standards in cold climates. Railio, J., [1994,eng] 48-3858
Sustainable urban development in cold climate. Lundborg, G., [1994,eng] 48-3883
Tariff policy in district heating. Jauhiainen, I., [1994,eng] 48-3856

Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873
Thermostats in an insulated residence with passive solar heating. Berglund, L.G., et al, [1994,eng] 48-3879
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269
Trans-Alaska Pipeline Research Program. Progress report 77-A. Crory, F.E., [1976,eng] 48-3427
Trans-Alaska Pipeline Research Program. Progress report 77-B. Austin, M.A., [1977,eng] 48-3428
Two similar insulated residences at 61 and 41N latitude. Berglund, H.N., et al, [1994,eng] 48-3868
Usable space in houses with and without raised floors. Numano, N., [1993,jpn] 48-1984
Using the working elements of earth moving machines under the conditions in Siberia and the Far North. Suslov, A.A., [1993,rus] 48-746
Variation of energy consumption in dwellings due to climate, building and inhabitants. Pettersen, T.D., [1994,eng] 48-3871
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] 48-4798
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] 48-1104

Cold weather operation

Accident classification in the Arctic. Frimodt-Møller, B., et al, [1992,eng] 48-4963
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] 48-4964
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] 48-1974
Automation of field tests of pipes and high pressure vessels and prospects for its development. Levin, A.I., et al, [1990,rus] 48-53
Baling facility for municipal solid waste for the city of Yellowknife. Levert, D., et al, [1994,eng] 48-3357
Bulletin on the budget for snow and cold weather operations for 1987. Fujieda, H., [1987,jpn] 48-283
Bulletin on the budget for snow and cold weather operations for 1988. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-565
Burning of diesel oil spill. D'Atri, B., et al, [1993,eng] 48-3719
Caterpillar Mobil-Trac system's application to cold regions mobility problems. Steinke, D., [1993,eng] 48-1178
Challenges within oil and gas exploration and production in arctic regions. Usterud, O., et al, [1994,eng] 48-5562
Characteristics of the layout and operation of meliorative channels in Yakutia. Chzhan, R.V., et al, [1992,rus] 48-4786
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788
Comprehensive analysis of the safety conditions in condensed gas plants in the Far North. Zabusov, V.V., [1993,rus] 48-1908
Deformations of shoreline slopes of reservoirs in permafrost regions. Gogolev, E.S., [1992,rus] 48-4781
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] 48-1837
Direct conversion of natural gas to higher hydrocarbon liquids. Sackinger, W.M., et al, [1994,eng] 48-3984
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Emergency readiness in heavy snow region. Part 1. Yamagata, T., et al, [1993,jpn] 48-1978
Emergency readiness in heavy snow region. Part 2. Takahashi, A., et al, [1993,jpn] 48-1979
Epidemiology of injuries in northern areas. Middaugh, J., [1992,eng] 48-4962
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] 48-4967
Estimated budget requirements for snow and cold weather operations for 1987. Fujieda, H., [1986,jpn] 48-267
Estimated budget requirements for snow and cold weather operations for 1988. Fujieda, H., [1987,jpn] 48-554
Estimated budget requirements for snow and cold weather operations for 1989. Nakagawa, M., [1988,jpn] 48-665
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] 48-73
Fast preparation and more accurate utilization of the peat production area. Leiviskä, V., [1991,fin] 48-3678
Fire protection strategies for the Northwest Territories. Marianayagam, C., et al, [1994,eng] 48-3365
Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285
Floating semi-submersible drilling rig "Sever". Potapov, V.M., [1992,rus] 48-747
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] 48-3379
Future aspects of cities in snowy region. Izumi, M., et al, [1993,jpn] 48-1977
GRIP deep drilling camp. Gundestrup, N.S., et al, [1994,eng] 48-5362
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice-navigating ships supply Chukotka. Novosel'tsev, E., et al, [1992,rus] 48-5400
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskiĭ, I.N., ed, [1991,rus] 48-1910
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Liquid waste management CFS Alert. Héroux, J.A., et al, [1994,eng] 48-3380
Maintaining a sluice during winter. Nevskiĭ, V., et al, [1992,rus] 48-3795
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Making a snowproof town—Nagaoka New Town. Nishida, T., [1988,jpn] 48-559
Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] 48-1869
Marine information systems as key-tools in port and ocean engineering in polar regions. Pfeiffer, K.D., et al, [1993,eng] 48-161
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Method of determining the stress of local flow in areas of stress concentration at low climatic temperatures. Novopashin, M.D., et al, [1990,rus] 48-61
Mining machines serviceability under cold climate conditions. Larionov, V.P., et al, [1994,eng] 48-3985
Multipurpose underwater transport ship outfitted for the Arctic. Dronov, B.F., et al, [1992,rus] 48-748
Nagaoka thriving in the snow. Nagaoka City Civil Engineering Department, [1987,jpn] 48-553
New ships and offshore structures for the Arctic.[1992,rus] 48-750
Northernmost project. Stepanov, S., [1993,rus] 48-1907
On winter warfare. Swinzow, G.K., [1993,eng] 48-1003
Operability: the first step to mobility. Diemand, D., [1993,eng] 48-1166
Operation and monitoring of sewage disposal by stack injection. Jensen, D.A., [1994,eng] 48-3387
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Peat leachmound treatment of residential wastewater in subarctic Alaska. Rizzyk, R.Z., et al, [1993,eng] 48-211
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. Johnson, K., et al, [1994,eng] 48-3381
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Problems in designing pipelines for northern Russia. Dimov, L.A., [1993,rus] 48-743
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] 48-3406
Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991, [1993,eng] 48-1160
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] 48-4961
Progress and future prospects for snow and cold weather operations. Terada, A., [1987,jpn] 48-269
Rapid deployment of camp facilities utilizing point-supported structures. Mimken, V.B., et al, [1994,eng] 48-5364
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Recent trends in research on snow and ice disaster prevention. Nakamura, T., [1987,jpn] 48-275
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Report on the budget items for snow and cold weather operations in 1985. Fujieda, H., [1986,jpn] 48-27
Report on the budget items for snow and cold weather operations in 1987. Nakagawa, M., [1988,jpn] 48-591
Report on the budget items for snow and cold weather operations in 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-716
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] 48-4966
Sawauchi Village Institute of Snow Country Culture. Takahashi, T., [1989,jpn] 48-673
Shoreline processes at the Viliuysk hydroelectric plant reservoir. Konstantinov, I.P., [1992,rus] 48-4782
Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] 48-4965
Solution to problems in mining ore deposits in the North. Grinev, V.G., [1992,rus] 48-652
Summary of the snow and cold weather operations budget for 1989. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-708
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358
Truth about winter maintenance. Muntz, H., [1994,eng] 48-5299
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] 48-5416
Use of steam-gas plants in Northern regions. Stepanov, I.R., [1992,rus] 48-4150
Using the working elements of earth moving machines under the conditions in Siberia and the Far North. Suslov, A.A., [1993,rus] 48-746
Valdez initiates sludge disposal operations. Van Hemert, W., et al, [1993,eng] 48-1886
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] 48-4798
Winter operations guidance for air carriers, and other adverse weather topics. U.S. Federal Aviation Administration, [1982,eng] 48-1144

Cold weather performance

3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] 48-2317
Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Aerodynamic protection of premises against cold through apertures. Shilkrot, E.O., et al, [1994,eng] 48-3865
Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876
Application of in-situ surface recycling methods in cold areas. Kikukawa, S., et al, [1993,eng] 48-5072
Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] 48-1763
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
Asphalt viscoelasticity under high and low temperatures. Hase, M., [1993,ger] 48-607
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4362
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] 48-3431
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] 48-1828
Bringing agricultural tractor hydraulics to life at -30 C. Macdonald, D.J., [1994,eng] 48-3097
Burner-assisted residential air-source heat pump. Jones, P.R., et al, [1994,eng] 48-3852
Characteristics of the structural formation of weld seams, applied by an irregular fusion method. Moskvitina, L.V., et al, [1990,rus] 48-54
Cold climate effects on composite materials—preliminary results. Varna, J., et al, [1994,eng] 48-3979
Cold climate HVAC '94. International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994. [1994,eng] 48-3841
Cold hand patching materials. Outcalt, W., [1993,eng] 48-3282
Cold regions performance of optical-fiber and pulsed near-infrared intrusion detection systems. Peck, L., [1994,eng] 48-1542
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] 48-1278
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Cold weather demonstration of the AH-64A helicopter. Final report. Riley, M.N., et al, [1993,eng] 48-1129
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Composite materials for arctic use. Sakurai, A., et al, [1993,jpn] 48-1041
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Construction in polar regions using local raw materials. Cherskiĭ, I.N., et al, [1994,eng] 48-3948
Correlation of studded tire use and road safety. Øberg, G., et al, [1993,swe] 48-4022
Cyclohexyl nitrate fuel additive for cold starting. Dolmatov, V.IU., et al, [1992,eng] 48-5510
Decreasing energy expenditures for warming engines before ignition. Reznik, L., et al, [1994,eng] 48-3085
Deformation of a pressure vessel during failure caused by a technological defect. Ammosov, A.P., et al, [1990,rus] 48-55
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] 48-3390
Design of terraced houses for cold climate. Kalabin, A.V., [1994,eng] 48-3880
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098

Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] 48-3981
Development of a temperature compensated gas lift cylinder. Popjoy, M.A., et al, [1994,eng] 48-3093
DEW line's construction seasons. Cheever, M.S., [1957,eng] 48-288
Diesel engine cold starting with catalytically ignited recirculated exhaust gas. Sun, R.N., et al, [1994,eng] 48-3092
Durable surface coatings for rubber articles e.g. wiper blades and seal packings. Hirokawa, Y., et al, [1993,eng] 48-5523
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion. Borisov, V.E., et al, [1990,rus] 48-59
Effect of highway geometry on distress of asphalt pavements in cold climates. Abd El Halim, A.O., et al, [1993,eng] 48-5079
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] 48-3086
Engines in passenger cars under subzero conditions. Lemke, H., [1994,eng] 48-3106
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] 48-4967
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] 48-5077
Experiment on durability of lightweight concrete exposed in the Okhotsk Sea. Sakurai, H., et al, [1993,jpn] 48-1043
Experimental method for vehicle mobility research on freezing/thawing soil. Shoop, S.A., et al, [1993,eng] 48-1163
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
External design of houses in a cold and snow-fall region in the Tohoku District. Hirai, K., [1993,jpn] 48-1982
Failure mechanics criteria for field testing large-sized structures. Guliaev, V.P., [1990,rus] 48-50
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] 48-5085
Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Formulating automatic transmission fluids with improved low temperature fluidity. Watts, R.F., et al, [1991,eng] 48-3931
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Gas engine driven heat pump: an excellent alternative in cold climate. Dentice d'Accadia, M., et al, [1994,eng] 48-3853
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
Heating and ventilation systems for industrial buildings. Finkel'shtein, S.M., [1994,eng] 48-3861
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] 48-2213
HVAC technology and trade in Russia and other East European countries. Tabunshchikov, IU.A., [1994,eng] 48-3855
Impact of nonstationary temperature effects on the stress state of integrated structures. Sobakin, A.A., et al, [1990,rus] 48-60
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Improvement of the cold start qualities of diesel engines with swirl chambers. Mohr, H., et al, [1994,eng] 48-3084
Improving the cold start of spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3090
Improving the cold starting ability of an engine. Gillbrand, P., et al, [1990,eng] 48-2202
Improving winter pavement performance. Darling, M., et al, [1993,eng] 48-2328
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
Initial study of railplugs as an aid for cold starting of diesels. Shen, K., et al, [1994,eng] 48-3104
Insulated compost containers for cold climate. Nilsson, P., et al, [1994,eng] 48-3977
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskiĭ, I.N., ed, [1991,rus] 48-1910
Investigation of the roof shape and roofing materials of wooden houses in Sapporo. Hoshino, M., et al, [1993,jpn] 48-1990
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] 48-5188
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Low temperature properties of asphalts and asphaltic mixtures. Moriyoshi, A., et al, [1993,eng] 48-5089
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
Lube basestock manufacturing technology and engine oil pumpability. Rossi, A., [1994,eng] 48-3100
Lubricant effects on low-temperature diesel engine cold starting. Buck, W.H., et al, [1994,eng] 48-3099
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Method and apparatus for thermal control of automotive components. Inkmann, M.S., et al, [1992,eng] 48-2240
Military vehicles for cold climates. Falk, A., [1994,eng] 48-3946
Mining machines serviceability under cold climate conditions. Larionov, V.P., et al, [1994,eng] 48-3985
Moisture protection of the industrial building enclosures in a cold climate by using dry jets. IUr'ev, O.F., [1994,eng] 48-3866
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
New diesel low temperature operability test—AGELFI filtration test. Hamon, D.M., et al, [1994,eng] 48-3088
New heating concept for Inuit housing. Lim, H.T., [1979,eng] 48-4143
New method for estimating the heat effectiveness of a building in extreme climatic conditions. Brodach, M.M., et al, [1994,eng] 48-3874
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
North Slope Borough's experiences with incineration. Thomas, J.E., et al, [1989,eng] 48-4136
Operability: the first step to mobility. Diemand, D., [1993,eng] 48-1166
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] 48-3945
Positioning of houses on lots in snow districts. Fukazawa, D., [1993,jpn] 48-1985
Pre-oiling system during cold-start of SI engine. Parpola, M., et al, [1994,eng] 48-3087
Preproduction cold weather test of a landmine. Reagan, J., [1993,eng] 48-1771
Principles and application of mechanical ductless ventilation systems. Maevskiĭ, I., [1994,eng] 48-3862
Problems in designing pipelines for northern Russia. Dimov, L.A., [1993,rus] 48-743
Problems in welding of structures used in polar regions of Russia. Larionov, V.P., et al, [1994,eng] 48-3978
Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991, [1993,eng] 48-1160
Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] 48-5066
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] 48-4961
Proceedings. Subzero Engineering Conditions Conference, Brainerd, MN, Feb. 21-24, 1994, [1994,eng] 48-3083
Production of pour-point depressants for diesel and furnace fuels. Chesnovitskiĭ, K.G., et al, [1993,eng] 48-981
Protective clothing against cold. Holmér, I., [1992,eng] 48-4968
Qualities of home and work place achievable in intelligent buildings in cold climates. Kainlauri, E.O., [1994,eng] 48-3878
Radial shaft sealing systems in arctic conditions. Välttilä, J., [1994,eng] 48-3983
Radial shaft seals in arctic conditions. Välttilä, J., [1994,eng] 48-3101
Rapid pothole repairs during adverse weather conditions: field evaluation. Joseph, P., et al, [1993,eng] 48-5092
Recovering heat in manufacturing facilities with energy capacious technology. Petersons, G., [1994,eng] 48-3854
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] 48-5076
Reduction of the energy consumption in air curtains. Nikulin, M.V., et al, [1994,eng] 48-3864
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Results of performance tests on the BelAZ-75191 automobile in cold climate conditions. Larionov, V.P., et al, [1990,rus] 48-58
Review of footwear for cold/wet scenarios. Part I: the boot. Dyck, W., [1992,eng] 48-4750
Rheological properties of regular and polymer modified asphalts. Gagnon, P.F., et al, [1993,eng] 48-5090
Rule-based assembly of architectural details for cold climates in three-dimensions. Seebohm, T., [1994,eng] 48-3882
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] 48-4966
Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025
Simplified ventilation system Thermonet. Hyvärinen, K., [1994,eng] 48-3872
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Simulation of the effect of wind on clothing by measurements and calculations. Anttonen, H., et al, [1993,eng] 48-4902
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Special demands for ventilation system and product standards in cold climates. Railio, J., [1994,eng] 48-3858
Stabilized recycled plastics as high performance asphalt binder modifiers. Liang, Z.Z., et al, [1993,eng] 48-5075
Study on the application of surface recycling methods. Nakanishi, T., et al, [1993,eng] 48-5074
Sustainable urban development in cold climate. Lundborg, G., [1994,eng] 48-3883
Synthetic diesel oil for use in cold temperatures. Zheng, C., [1993,eng] 48-5524
Tariff policy in district heating. Jauhiainen, I., [1994,eng] 48-3856
Temperature compensation techniques and technologies—an overview. Kruczynski, D.L., et al, [1991,eng] 48-3672
Test plan for military skis and bindings. Hoger, S.E., et al, [1993,eng] 48-1770
Tests of metal materials and structures at low climatic temperatures; collected scientific papers. Malinin, N.I., ed, [1990,rus] 48-49
Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846
Thermal insulation for cold climate clothing. Miller, S.D., [1987,eng] 48-4900
Thermal protectiveness of electrically heated clothing and boots. Hickey, C.A., Jr., et al, [1993,eng] 48-4753
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] 48-720
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] 48-5069
Thermostats in an insulated residence with passive solar heating. Berglund, L.G., et al, [1994,eng] 48-3879
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489
Tires with polymer composition and silica filler. Rauline, R., [1993,eng] 48-4367
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438
Tribology of frost-resistant antifriction materials. Cherskiĭ, I.N., et al, [1994,eng] 48-3980
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
Two similar insulated residences at 61 and 41N latitude. Berglund, H.N., et al, [1994,eng] 48-3868
Types of limiting conditions and factors which govern the cold resistance of supporting structures. Kuz'min, V.R., [1990,rus] 48-57
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017
Unique cold start method used on Volvo's new 12L unit injector diesel engine. Gustavsson, T., et al, [1994,eng] 48-3112
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] 48-5416
Usable space in houses with and without raised floors. Numano, N., [1993,jpn] 48-1984
Use of vehicle drive cycles to assess spark plug fouling performance. Shayler, P.J., et al, [1994,eng] 48-3102
Variation of energy consumption in dwellings due to climate, building and inhabitants. Pettersen, T.D., [1994,eng] 48-3871
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845
Welding of quenched and tempered steel at low temperatures. Lagerqvist, O., et al, [1994,eng] 48-3982
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] 48-1167
Wind-induced heat transfer through permeable clothing. Kind, R.J., et al, [1993,eng] 48-874
Winter ground gremlins. Cox, B., [1990,eng] 48-1920
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] 48-757

Cold weather survival

Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Arctic survival equipment testing and analysis. Dick, R.A., et al, [1992,eng] 48-5105
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
Cold weather breathing mask. Adams, W.R., [1990,eng] 48-2173
Cold weather marine survival guide. Canadian Coast Guard. Arctic Ship Safety, [1993,eng] 48-3999

Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] 48-1257
Dog sled safety on ice. Collins, J., [1994,eng] 48-3270
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] 48-1028
Flowering phenology in tundra plants. Molau, U., [1993,eng] 48-2423
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo*. Hincha, D.K., et al, [1993,eng] 48-1255
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] 48-2156
Hybrid electronic control system and method for cold weather garment. Batcheller, B.D., et al, [1991,eng] 48-2250
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Inflatable rucksack for avalanche survival. Rodger, I., [1994,eng] 48-3272
Manual of environmental effects: the countries of former Yugoslavia and Albania. Floou, M., et al, [1993,eng] 48-1869
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Personal Arctic Survival Kit (PASK) field trials. Dick, R.A., et al, [1992,eng] 48-5104
Protective clothing against cold. Holmér, I., [1992,eng] 48-4968
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Review of footwear for cold/wet scenarios. Part I: the boot. Dyck, W., [1992,eng] 48-4750
Seed survival in a high alpine block field. Moen, J., [1993,eng] 48-938
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Study on arctic survival, life saving equipment and navigation. Canadian Coast Guard. Arctic Ship Safety, [1991,eng] 48-4000
Subnivean development of a snowbank geophyte. Hamerlynch, E.P., et al, [1994,eng] 48-3503
Thermal protectiveness of electrically heated clothing and boots. Hickey, C.A., Jr., et al, [1993,eng] 48-4753
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] 48-2416

Cold weather tests
3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] 48-2317
Aircraft ground deicing and anti-icing fluids. Louchez, P.R., et al, [19[illegible],eng] 48-3111
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] 48-961
Arctic survival equipment testing and analysis. Dick, R.A., et al, [1992,eng] 48-5105
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] 48-133
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Bringing agricultural tractor hydraulics to life at -30 C. Macdonald, D.J., [1994,eng] 48-3097
Cold climate effects on composite materials—preliminary results. Varna, J., et al, [1994,eng] 48-3979
Cold hand patching materials. Outcalt, W., [1993,eng] 48-3282
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] 48-1278
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Cold weather demonstration of the AH-64A helicopter. Final report. Riley, M.N., et al, [1993,eng] 48-1129
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] 48-1758
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Decreasing energy expenditures for warming engines before ignition. Reznik, L., et al, [1994,eng] 48-3085
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098
Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] 48-3981
Development of a temperature compensated gas lift cylinder. Popjoy, M.A., et al, [1994,eng] 48-3093
Diesel engine cold starting with catalytically ignited recirculated exhaust gas. Sun, R.N., et al, [1994,eng] 48-3092
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] 48-3086
Engines in passenger cars under subzero conditions. Lemke, H., [1994,eng] 48-3106
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Experimental method for vehicle mobility research on freezing/thawing soil. Shoop, S.A., et al, [1993,eng] 48-1163
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Failure mechanics criteria for field testing large-sized structures. Guliaev, V.P., [1990,rus] 48-50
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et al, [1993,eng] 48-3936
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] 48-2156
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Improvement of the cold start qualities of diesel engines with swirl chambers. Mohr, H., et al, [1994,eng] 48-3084
Improving the cold start of spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3090
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] 48-4122
Initial study of railplugs as an aid for cold starting of diesels. Shen, K., et al, [1994,eng] 48-3104
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Lube basestock manufacturing technology and engine oil pumpability. Rossi, A., [1994,eng] 48-3100
Lubricant effects on low-temperature diesel engine cold starting. Buck, W.H., et al, [1994,eng] 48-3099
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403
New diesel low temperature operability test—AGELFI filtration test. Hamon, D.M., et al, [1994,eng] 48-3088
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Personal Arctic Survival Kit (PASK) field trials. Dick, R.A., et al, [1992,eng] 48-5104
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] 48-4809
Pre-oiling system during cold-start of SI engine. Parpola, M., et al, [1994,eng] 48-3087
Preproduction cold weather test of a landmine. Reagan, J., [1993,eng] 48-1771
Preproduction qualification test of a smoke generating system. Reagan, J., et al, [1994,eng] 48-5435
Proceedings. Subzero Engineering Conditions Conference, Brainerd, MN, Feb. 21-24, 1994. [1994,eng] 48-3083
Protein changes and functions during cold acclimation of winter wheat. Zhao, Y.T., et al, [1993,eng] 48-505
Radial shaft sealing systems in arctic conditions. Välttilä, J., [1994,eng] 48-3983
Radial shaft seals in arctic conditions. Välttilä, J., [1994,eng] 48-3101
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Study on frost heave tests. Kumagai, S., et al, [1988,jpn] 48-588
Test plan for military skis and bindings. Hoger, S.E., et al, [1993,eng] 48-1770
Tests of metal materials and structures at low climatic temperatures; collected scientific papers. Malinin, N.I., ed, [1990,rus] 48-49
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
Unique cold start method used on Volvo's new 12L unit injector diesel engine. Gustavsson, T., et al, [1994,eng] 48-3112
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Use of vehicle drive cycles to assess spark plug fouling performance. Shayler, P.J., et al, [1994,eng] 48-3102
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134
Welding of quenched and tempered steel at low temperatures. Lagerqvist, O., et al, [1994,eng] 48-3982
What's new in deicing.[1994,eng] 48-4257
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] 48-757

Collisions
See [also]: Ice crystal collision

Colloids
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] 48-3839
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] 48-2449
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
See [also]: Soil colloids

Colored ice
Correction to paper by S.G. Warren et al. Warren, S.G., et al, [1993,eng] 48-1150

Colored snow
Dyeing of snow surfaces to observe snow structure. Kovacs, A., [1993,eng] 48-3601
Dyeing of snow surfaces to observe structure. Kovacs, A., [1993,eng] 48-3001
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

Communication cables
See [also]: Transmission lines

Communications
See [also]: Telecommunication

Compaction
Compacting and freeze concentration of radioactive wastes. Husseiny, A.A., [1991,eng] 48-2229
Freeze-thaw durability of roller-compacted concrete made with Rolad binder. Delagrave, A., et al, [1994,fre] 48-5143
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
See [also]: Snow compaction; Soil compaction

Composite materials
Applications of recycled plastics for roadside safety hardware. Dutta, P.K., et al, [1994,eng] 48-3268
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4362
Cold climate effects on composite materials—preliminary results. Varna, J., et al, [1994,eng] 48-3979
Composite materials for arctic use. Sakurai, A., et al, [1993,jpn] 48-1041
Composites for roadside hardware. Dutta, P.K., et al, [1993,eng] 48-2094
Dynamic tensile strength of glass fiber reinforced pultruded composites. Dutta, P.K., et al, [1994,eng] 48-3267
Ecological and economical thermo-blocks for external walls. Lapsa, V.A., [1994,eng] 48-3877
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites. Madhukar, M.S., et al, [1994,eng] 48-5150
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Flexural fatigue and fracture of unidirectional graphite/epoxy composites at low temperatures. Dutta, P.K., [1993,eng] 48-2062
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] 48-1601
Fracture behavior of composites at room and cryogenic temperature. Lau, O.H., [1993,eng] 48-3539
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
Ice and snow melt. Greenwald, S., [1986,eng] 48-4274
Influence of low temperature on energy absorption in laminated composites. Dutta, P.K., et al, [1993,eng] 48-2061
Method of making an integral heater for composite structure. Bayless, J.D., Jr., et al, [1990,eng] 48-2267
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] 48-2080
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] 48-1366
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Stress waves through graphite/epoxy laminated plates. Hui, D., et al, [1993,eng] 48-2063

Composition
See [also]: Atmospheric composition; Chemical composition; Ice composition; Snow composition; Soil composition

Compressed air bubbling systems
See [also]: Bubbling

Compressive properties
Analysis of spatial heterogeneity of ultimate ice compressive strength. Surkov, G.A., et al, [1993,eng] 48-4329

Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] 48-3013
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Dilatometer for determination of the compression modulus of soils under field conditions. Blekhman, D.A., et al, [1990,eng] 48-1388
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] 48-483
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Measuring the compressive strength of ice. Kovacs, A., [1993,eng] 48-3494
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] 48-5394
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
Uniaxial compressive strength and elastic modulus of sea ice. Takeuchi, T., et al, [1993,eng] 48-4327
Use of fresh concrete for piles in permafrost. Senneset, K., et al, [1994,eng] 48-3352
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] 48-1167
See [also]: Frozen ground compression; Snow compression

Computer applications
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Antarctic career move for ageing torpedo. Anderson, I., [1993,eng] 48-3626
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Automation of field tests of pipes and high pressure vessels and prospects for its development. Levin, A.I., et al, [1990,rus] 48-53
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Development of automatic antenna elevation angle setting at Doppler radar observation. Oi, M., [1992,jpn] 48-3217
Distributed numerical weather prediction: what lies beyond television's "Volksmeteorologie". Reiter, E.R., [1990,eng] 48-3127
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] 48-3163
Forecasting thermokarst with a computer. Fel'dman, G.M., et al, [1992,rus] 48-4796
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Introduction of application methods for CT in frozen soil experimental research. Pu, Y.B., [1993,eng] 48-5231
Introduction of applying method for CT in frozen soil experiment research. Pu, Y.B., [1993,chi] 48-1459
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] 48-2824
Method for low temperature field tests of pipes and pressure vessels. Sosin, T.S., et al, [1990,rus] 48-51
Monitoring vibrations in a nuclear icebreaker. Lattka, A.L., et al, [1990,ger] 48-3929
MST-88 multichannel temperature data logger. Wang, L.W., et al, [1993,chi] 48-4592
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] 48-3227
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska. Haynes, F.D., et al, [1994,eng] 48-5409
Prediction of daily snowfall depth obtained from neuro computing method. Amenomori, M., et al, [1993,jpn] 48-3179
Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] 48-2121
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] 48-4557
Report of the IAHR Working Group on Ice Forces on Structures. Wessels, E., [1992,eng] 48-1561
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures. McKenna, R.F., [1992,eng] 48-1562
Snow profile computer drafting package. Weir, P., [1994,eng] 48-4118
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806
Use of computer-aided learning packages in glaciology and glacial geology. Hart, J.K., et al, [1993,eng] 48-3602

Computer programs
Advancements in the LEWICE Ice Accretion Model. Wright, W.B., [1993,eng] 48-4886
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729
Army MANPRINT program and its relationship to industry. Sloss, D.A., et al, [1993,eng] 48-1168
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] 48-2839
Compilation of geotechnical information from the short range radar sites into a public domain database. Biggar, K.W., et al, [1994,eng] 48-3389
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] 48-1961
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] 48-803
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] 48-5377
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis. Kestler, M.A., et al, [1994,eng] 48-3369
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Ice accretion and performance degradation calculations with LEWICE/NS. Potapczuk, M.G., et al, [1993,eng] 48-4884
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930
International Northern Sea Route Program. Løvås, S.M., et al, [1994,eng] 48-5593
Introduction of software used for experiment of mechanics of frozen soil. Shen, Z.Y., [1993,chi] 48-1455
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Modeling the transport of heavy metals in soils. Selim, H.M., et al, [1990,eng] 48-3493
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
NYTEMP user's manual: a pavement temperature model. Chen, H.J., [1993,eng] 48-1839
Particle trajectory computer program for icing analysis of axisymmetric bodies. Frost, W., et al, [1992,eng] 48-4861
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] 48-1682
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] 48-5212
Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] 48-2121
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures. McKenna, R.F., [1992,eng] 48-1562
Review of icing research at the Royal Aerospace Establishment. Gent, R.W., [1991,eng] 48-3689
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] 48-761
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750
Use of computer-aided learning packages in glaciology and glacial geology. Hart, J.K., et al, [1993,eng] 48-3602
Winter highway maintenance data, Vol.2. Grenney, W.J., et al, [1993,eng] 48-1847

Computerized simulation
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] 48-2593
Anti-icing system results on a NASA 0012 airfoil. Al-Khalil, K.M., et al, [1993,eng] 48-4883
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] 48-2839
BLASIM: a computational tool to assess ice impact damage on engine blades. Reddy, E.S., et al, [1993,eng] 48-2640
Calculation of flow in the network of snow removing channel. Sugimori, M., [1992,jpn] 48-3158
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes. Webb, T., III, et al, [1993,eng] 48-2978
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] 48-4730
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] 48-3011
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] 48-4824
Computer modeling of alpine stream diversions. Brady, T.M., et al, [1993,eng] 48-689
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Controlling the proportion of snow in snow removal drains. Kitahara, T., et al, [1992,jpn] 48-3164
Coupled ice-ocean model of the Beaufort and Chukchi Seas. Hedstrom, K.S., et al, [1993,eng] 48-791
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] 48-461
Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] 48-4063
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] 48-1371
Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] 48-3343
Estimating snow water equivalent using a GIS. McManamon, A., et al, [1993,eng] 48-684
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] 48-2932
Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] 48-2974
Hydrologic modelling of flooding and runoff. Feldman, A.D., et al, [1993,eng] 48-680
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
Impact of a repository on permafrost development during glaciation advance. Vallander, P., et al, [1991,eng] 48-4761
Incompressible solver and ice accretion on an airfoil. Ok, H.N., [1994,eng] 48-3554
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] 48-3553
Interactive calibration for the SSARR watershed model. Rockwood, D.M., et al, [1993,eng] 48-2954
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Melting windshield ice.[1994,eng] 48-3616
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] 48-5157
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] 48-3037
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Modelling of rime icing of wind turbines. Finstad, K.J., et al, [1993,eng] 48-822
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877

Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
Monthly mean sea ice data from ice prediction models. Posey, P.G., et al, [1991,eng] 48-4731
National Weather Service's transition to hydrologic modeling on scientific work stations. Farnsworth, R.K., et al, [1993,eng] 48-681
Nested grid sea ice modelling. Christensen, F.T., et al, [1993,eng] 48-165
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] 48-683
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] 48-2642
On computer simulation of atmospheric transport of radioactive tracers to the arctic ecosystem. Pudykiewicz, J.A., [1993,eng] 48-4559
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center. Preller, R.H., et al, [1991,eng] 48-4732
Parametric sensitivity in ice force calculation models. Timco, G.W., et al, [1994,eng] 48-5575
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993, [1993,eng] 48-679
Research developments in sophisticated automation technology for snow removal in cold regions. Sayama, S., et al, [1989,jpn] 48-676
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054
Rule-based assembly of architectural details for cold climates in three-dimensions. Seebohm, T., [1994,eng] 48-3882
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] 48-5132
Snow profile computer drafting package. Weir, P., [1994,eng] 48-4118
Snow water equivalent estimates from spatial modeling of data. Carroll, S.S., et al, [1993,eng] 48-2931
Snowmelt runoff forecasting. Pangburn, T., et al, [1993,eng] 48-685
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] 48-1223
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] 48-2790
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Study of the small ice cap instability in the presence of fluctuations. Lee, W.H., [1994,eng] 48-3551
Study on frazil and anchor ice processes and development of a river ice model. Wang, D.S., [1994,eng] 48-3547
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-889
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Three-dimensional time-dependent ship icing model. Zakrzewski, W.P., et al, [1993,eng] 48-172
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] 48-2027
Watershed modeling—spatial partitioning using GIS. Jeton, A.E., et al, [1993,eng] 48-687

Concrete admixtures

Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Compound to increase the frost-resistance of hardened concrete. Berntsson, L., et al, [1991,eng] 48-2252
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] 48-2371
Effects of high-range water reducers on the properties of fresh and hardened concrete. Zakka, Z.A., et al, [1989,eng] 48-3707
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Freeze-thaw durability of roller-compacted concrete made with Rolad binder. Delagrave, A., et al, [1994,fre] 48-5143
Frost resistance of portland cement concrete with admixtures. Khan, S.A., [1992,eng] 48-805
Low-temperature admixtures for concrete. Korhonen, C.J., et al, [1994,eng] 48-3354
New course in management of cold regions construction. Bennett, F.L., [1993,eng] 48-4935
Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture. Wood, T.B., et al, [1994,eng] 48-3353
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Structure and frost resistance of centrifuged concrete with admixtures. Ivanov, F.M., et al, [1989,rus] 48-307
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
Use of fresh concrete for piles in permafrost. Senneset, K., et al, [1994,eng] 48-3352
Using dry mixtures for concreting extended constructions on a frozen foundation. Shifrin, S.A., et al, [1992,rus] 48-1392
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954

Concrete aggregates

Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Development of stone mastic asphalt mixes for Ontario use. Emery, J., et al, [1993,eng] 48-5086
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
High performance concrete mixtures for durability. Shilstone, J.M., Sr., et al, [1993,eng] 48-2659
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956

Concrete curing

Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] 48-2371
Low-temperature admixtures for concrete. Korhonen, C.J., et al, [1994,eng] 48-3354
New course in management of cold regions construction. Bennett, F.L., [1993,eng] 48-4935
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture. Wood, T.B., et al, [1994,eng] 48-3353
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956
Why is there air in concrete. Hover, K.C., [1993,eng] 48-286

Concrete durability

Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Basic forms of damage to concrete by frost. Mironov, S.A., [1992,rus] 48-1393
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] 48-2371
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Durability of high performance concrete. Hansen, M.R., [1993,eng] 48-3538
Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Durability of high strength concrete: study on frost resistance. Han, C.G., [1993,kor] 48-3996
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Effects of high-range water reducers on the properties of fresh and hardened concrete. Zakka, Z.A., et al, [1989,eng] 48-3707
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Experiment on durability of lightweight concrete exposed in the Okhotsk Sea. Sakurai, H., et al, [1993,jpn] 48-1043
Freeze-thaw durability of roller-compacted concrete made with Rolad binder. Delagrave, A., et al, [1994,fre] 48-5143
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
Frost resistance of portland cement concrete with admixtures. Khan, S.A., [1992,eng] 48-805
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
High performance concrete for highway applications: field results. Schemmel, J.J., et al, [1993,eng] 48-2658
High performance concrete mixtures for durability. Shilstone, J.M., Sr., et al, [1993,eng] 48-2659
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Significance of pavement design and materials in D-cracking. Final report. Stark, D.C., [1991,eng] 48-4899
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Study of thermal distribution in concrete located in cold sea environment. Sakurai, H., et al, [1990,jpn] 48-4667
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956

Concrete freezing

Alberta Concrete Patch Evaluation Program. Gurjar, S., et al, [1987,eng] 48-4402
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Basic forms of damage to concrete by frost. Mironov, S.A., [1992,rus] 48-1393
Durability of high performance concrete. Hansen, M.R., [1993,eng] 48-3538
Durability of high strength concrete: study on frost resistance. Han, C.G., [1993,kor] 48-3996
Effects of high-range water reducers on the properties of fresh and hardened concrete. Zakka, Z.A., et al, [1989,eng] 48-3707
Frost resistance of portland cement concrete with admixtures. Khan, S.A., [1992,eng] 48-805
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Mathematical model of concrete temperature deformations during freezing-thawing. Pavlov, A.R., et al, [1994,eng] 48-3955
Microstructure of air-entrained concrete. Rashed, A.M.I., [1991,eng] 48-3524
Repair and protection of concrete structures. Mailvaganam, N.P., ed, [1992,eng] 48-2653
Structure and frost resistance of centrifuged concrete with admixtures. Ivanov, F.M., et al, [1989,rus] 48-307
Study of thermal distribution in concrete located in cold sea environment. Sakurai, H., et al, [1990,jpn] 48-4667
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954

Concrete pavements

Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
High performance concrete for highway applications: field results. Schemmel, J.J., et al, [1993,eng] 48-2658
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] 48-2116
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Significance of pavement design and materials in D-cracking. Final report. Stark, D.C., [1991,eng] 48-4899
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915

Concrete piles

Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] 48-439

Pile uplift forces and the adfreeze phenomenon. Suman, J.C., [1994,eng] 48-3019
Use of fresh concrete for piles in permafrost. Senneset, K., et al, [1994,eng] 48-3352
Concrete placing
Building construction on permafrost foundations. Goncharov, IU.M., [1993,eng] 48-519
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] 48-439
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
See [also]: Winter concreting
Concrete slabs
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] 48-5233
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] 48-4493
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Concrete strength
Alberta Concrete Patch Evaluation Program. Gurjar, S., et al, [1987,eng] 48-4402
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] 48-5391
Low-temperature admixtures for concrete. Korhonen, C.J., et al, [1994,eng] 48-3354
Mathematical model of concrete temperature deformations during freezing-thawing. Pavlov, A.R., et al, [1994,eng] 48-3956
Microstructure of air-entrained concrete. Rashed, A.M.I., [1991,eng] 48-3524
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] 48-4493
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] 48-5393
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] 48-5394
Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture. Wood, T.B., et al, [1994,eng] 48-3353
Relation between snow and damage on external wall of reinforced concrete construction. Tashiro, K., et al, [1993,jpn] 48-1983
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Structure and frost resistance of centrifuged concrete with admixtures. Ivanov, F.M., et al, [1989,rus] 48-307
Use of fresh concrete for piles in permafrost. Senneset, K., et al, [1994,eng] 48-3352
Why is there air in concrete. Hover, K.C., [1993,eng] 48-286
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954
Concrete structures
Concrete goes to sea for oil.[1994,eng] 48-4039
Concrete masonry handbook for architects, engineers, builders. Panarese, W.C., et al, [1991,eng] 48-2668
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] 48-552
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
Guidelines for type approval of waterproofing materials for concrete bridges. Wegan, V., [1994,eng] 48-4002
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Relation between snow and damage on external wall of reinforced concrete construction. Tashiro, K., et al, [1993,jpn] 48-1983
Repair and protection of concrete structures. Mailvaganam, N.P., ed, [1992,eng] 48-2653
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Concretes
Basic forms of damage to concrete by frost. Mironov, S.A., [1992,rus] 48-1393
See [also]: Bituminous concretes; Lightweight concretes; Precast concretes; Prestressed concretes; Reinforced concretes
Condensation
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] 48-1895
Heat transfer in translucent enclosed structures. Drozdov, V.A., et al, [1986,rus] 48-1288
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] 48-1818
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Condensation nuclei
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] 48-230
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] 48-229
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Condensation trails
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Conduction
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] 48-864
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Conductivity
See [also]: Electrical resistivity; Thermal conductivity
Conferences
See [also]: Meetings
Conservation
See [also]: Environmental impact
Consolidation
See [also]: Settlement (structural); Thaw consolidation
Construction
Avondale to build new icebreaker for USCG.[1993,eng] 48-3562
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
'Fennica' multipurpose icebreaker launched.[1992,eng] 48-3226
Finnish firms in arctic shipping joint venture.[1993,eng] 48-3228
Icebreaker M/S Fennica—Finnish shipbuilding know-how at its best. Lindqvist, R., [1993,eng] 48-2339
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] 48-3227
Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] 48-4300
World-class icebreaker: the Canadian *Polar*-8. Brigham, L.W., [1986,eng] 48-2337
See [also]: Cold weather construction; Modular construction
Construction equipment
Boring new ground.[1994,eng] 48-3786
Construction material for the new central building at Showa Station. Hannuki, T., et al, [1993,jpn] 48-2877
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] 48-1264
Providing tower cranes for construction sites in cold climate areas. Nevzorov, L.A., [1993,rus] 48-744
Using the working elements of earth moving machines under the conditions in Siberia and the Far North. Suslov, A.A., [1993,rus] 48-746
Construction materials
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4362
Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] 48-1520
Composite materials for arctic use. Sakurai, A., et al, [1993,jpn] 48-1041
Construction in polar regions using local raw materials. Cherskiĭ, I.N., et al, [1994,eng] 48-3948
Construction material for the new central building at Showa Station. Hannuki, T., et al, [1993,jpn] 48-2877
Evaluation problems of Russian gas pipeline constructions' resource. Kharionovskiĭ, V.V., [1994,eng] 48-3025
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] 48-1601
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] 48-1366
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Thermal conductivity and its determination technique for building insulation materials. Tao, Z.X., et al, [1993,chi] 48-1437
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
See [also]: Bituminous concretes; Bricks; Cements; Concretes; Ice (construction material); Insulation; Masonry; Panels; Plastics; Plates; Snow (construction material)
Construction sites
See [also]: Site surveys
Construction standards
See [also]: Building codes
Containers
See [also]: Tanks (containers)
Continental ice
See [also]: Land ice
Continuous permafrost
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] 48-487
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Cryogenic processes and phenomena in Mongolia. Lomborinchen, R., [1993,eng] 48-426
Effect of lake proximity on permafrost formation. Wu, Q.B., et al, [1993,eng] 48-485
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] 48-364
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Contrails
See [also]: Condensation trails
Convection
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] 48-2904
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] 48-2297
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574

Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Probable deep winter convection in Fram Strait. Bogorodskiĭ, P.V., et al, [1992,eng] 48-1767
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] 48-313

Coolants
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] 48-2371
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] 48-3959

Cooling
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] 48-2468
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] 48-860
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] 48-1507
See [also]: Air conditioning; Cryogenics; Ice refrigeration; Liquid cooling; Refrigeration

Cooling rate
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] 48-2451
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450

Cooling systems
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
Calmac ice storage test report. Stovall, T.K., [1991,eng] 48-3676
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] 48-2371
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Hybrid generator with deposited snow cooling. Satoh, K., [1993,jpn] 48-1981
Increasing the reliability of a nuclear icebreaker steam-turbine plant with a closed air-water cooling system. Klimov, IU.S., et al, [1992,rus] 48-751
See [also]: Air conditioning; Cryogenics; Refrigeration

Cooperation
See [also]: International cooperation

Core analysis
See [also]: Drill core analysis

Core samplers
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] 48-3612
Ice core processing at Dome F, Antarctica. Shoji, H., et al, [1994,eng] 48-5355
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
Novel shipboard ice properties measurement system. Rossiter, J.R., et al, [1994,eng] 48-5590
Pump freeze corer for recent sediments. Renberg, I., et al, [1993,eng] 48-1527
See [also]: Ice coring drills

Cores
See [also]: Drill core analysis; Ice cores

Coring
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
BZXJ super light ice core drill. Zhu, G.C., et al, [1994,eng] 48-5334
Deep core drilling in ice. Hansen, B.L., [1994,eng] 48-5326
Development of a JARE deep ice core drill system. Tanaka, Y., et al, [1994,eng] 48-5337
Development of Japanese mechanical drills—personal reminiscences. Suzuki, Y., [1994,eng] 48-5325
Development of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5329
Directional drilling in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-5342
Drilling fluid for Dome F project in Antarctica. Fujita, S., et al, [1994,eng] 48-5361
Drilling of glacier boreholes with a hydrophilic liquid. Zagorodnov, V.S., et al, [1994,eng] 48-5341
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland. Schwander, J., et al, [1994,eng] 48-5335
Experiment on ice cutting under high liquid pressure and low temperature. Narita, H., et al, [1994,eng] 48-5338
Fluids for use in deep ice-core drilling. Gosink, T.A., et al, [1994,eng] 48-5360
Future technical developments for the Polar Ice Coring Office 13.2 cm ice coring drill. Stanford, K.L., [1994,eng] 48-5331
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Hole liquids and gaskets for the ISTUK deep ice core drill. Gundestrup, N.S., et al, [1994,eng] 48-5359
Ice coring and drilling technologies developed by the Polar Ice Coring Office. Kelley, J.J., et al, [1994,eng] 48-5328
Instrumentation for the PICO deep ice coring drill. Hancock, W.H., [1994,eng] 48-5332
KEMS-112 electromechanical ice core drill. Kudriashov, B.B., et al, [1994,eng] 48-5340
New improved version of the ISTUK ice core drill. Johnsen, S.J., et al, [1994,eng] 48-5327
Operational considerations of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5330
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Technical aspects of deep ice drilling on Law Dome. Morgan, V., et al, [1994,eng] 48-5333
Thermal ice core drilling to 700 m depth at Mizuho Station, East Antarctica. Narita, H., et al, [1994,eng] 48-5343
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

Cornices
See [also]: Snow cornices

Corona discharge
See [also]: Electric corona

Correlation
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] 48-2584
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] 48-4713
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] 48-2394
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Comparative antarctic ozone spectrophotometry. Nichol, S.E., et al, [1993,eng] 48-1360
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] 48-626
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] 48-2354
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] 48-3825
Comparison of observed and modeled stratospheric water vapor. Mote, P.W., et al, [1993,eng] 48-636
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] 48-1311
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] 48-1805
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] 48-4568
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] 48-5441
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] 48-4200
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] 48-1791
Correlation of studded tire use and road safety. Øberg, G., et al, [1993,swe] 48-4022
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Dendrochronology and glacier variations in the Italian Alps. Baroni, C., et al, [1993,ita] 48-4095
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] 48-3885
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] 48-2860
Estimating the weight of a snow cover using only meteorological factors. Shinojima, K., et al, [1993,eng] 48-2850
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] 48-2572
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] 48-2917
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732

Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] 48-1794
Multi-lingual index of permafrost terms. Van Everdingen, R.O., [1993,eng] 48-470
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] 48-2582
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] 48-2585
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] 48-350
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] 48-1305
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] 48-2846
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] 48-5506
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] 48-3932
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] 48-2865
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] 48-5136
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] 48-5442
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] 48-2545
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] 48-1790
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] 48-2203
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135

Corrosion

Comprehensive domestic water quality study in the Northwest Territories. Facey, R.M., et al, [1994,eng] 48-3377
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Metal and alloy corrosion at Mirnyy Station. Mikhailov, A.A., et al, [1993,eng] 48-2312
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089

Cosmic dust

Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Methanol ice in the protostar GL 2136. Skinner, C.J., et al, [1992,eng] 48-3617

Cost analysis

1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] 48-3330
Alaska Energy Authority PV-diesel hybrid assessment and design program. Durand, S.J., et al, [1991,eng] 48-4757
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] 48-1139
Alaska's mineral industry 1993: a summary. Bundtzen, T.K., et al, [1994,eng] 48-3114
Arctic cargo transportation economic evaluation. Backlund, A., et al, [1993,eng] 48-101
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-1464
Arctic sciences program research summaries, 1992. Fondrk, J., ed, et al, [1993,eng] 48-1463
Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] 48-1763
Bulletin on road snow removal for 1987. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-573
Bulletin on road snow removal for 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-707
Bulletin on road snow removal in the 1986 snowstorms. Fujieda, H., [1986,jpn] 48-39
Bulletin on the budget for snow and cold weather operations for 1987. Fujieda, H., [1987,jpn] 48-283
Bulletin on the budget for snow and cold weather operations for 1988. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-565
Burner-assisted residential air-source heat pump. Jones, P.R., et al, [1994,eng] 48-3852
Canada Water Act Annual Report—1988-90. Environment Canada, [1989,eng] 48-3035
Changes and future topics for snow and cold weather operations in Aomori Prefecture. Sato, N., [1987,jpn] 48-272
Cold hand patching materials. Outcalt, W., [1993,eng] 48-3282
Cold region road maintenance in the 9th Five-Year Plan. Suzuki, A., [1988,jpn] 48-576
Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] 48-2872
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
Current status of snow removal equipment. Yamamoto, H., [1988,jpn] 48-555
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-2097
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] 48-704
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Estimated budget requirements for snow and cold weather operations for 1987. Fujieda, H., [1986,jpn] 48-267
Estimated budget requirements for snow and cold weather operations for 1988. Fujieda, H., [1987,jpn] 48-554
Estimated budget requirements for snow and cold weather operations for 1989. Nakagawa, M., [1988,jpn] 48-665
Fast preparation and more accurate utilization of the peat production area. Leiviskä, V., [1991,fin] 48-3678
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] 48-3379
How you can evaluate wetted salt.[1994,eng] 48-5302
Ice loads on multifaceted conical structures. Croasdale, K.R., et al, [1993,eng] 48-138
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] 48-567
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] 48-1426
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
Method of evaluating the cost of snow removal. Sakai, T., et al, [1993,jpn] 48-3186
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470
Nagaoka thriving in the snow. Nagaoka City Civil Engineering Department, [1987,jpn] 48-553
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] 48-1779
Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] 48-3382
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] 48-1186
Proceedings. Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992, [1993,eng] 48-1784
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] 48-1018
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident. Salbu, B., et al, [1993,eng] 48-4566
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Report on historical changes of road snow removal technique in Akita Prefecture. Ito, T., et al, [1993,jpn] 48-1970
Report on the budget items for snow and cold weather operations in 1985. Fujieda, H., [1986,jpn] 48-27
Report on the budget items for snow and cold weather operations in 1987. Nakagawa, M., [1988,jpn] 48-591
Report on the budget items for snow and cold weather operations in 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-716
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] 48-703
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054
Safe water for villages of the North Slope Borough. Shillington, E.I., et al, [1994,eng] 48-3376
SHRP research on snow and ice control. Minsk, L.D., [1993,eng] 48-1191
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-1126
Snow and cold weather operations at the Chubu Regional Construction Bureau. Chubu Regional Construction Bureau, [1988,jpn] 48-581

Snow and ice countermeasures in 1985. Murase, K., et al, [1986,jpn] 48-17
Snow avalanche disaster of winter 1992 in southeastern Anatoliya, Türkiye. Gürer, I., [1993,eng] 48-766
Snow melting measures in Asahikawa City. Ito, H., et al, [1988,jpn] 48-566
Snowstorms and countermeasures in 1985. Yamanaka, Y., [1986,jpn] 48-14
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336
Summary of the snow and cold weather operations budget for 1989. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-708
Tariff policy in district heating. Jauhiainen, L., [1994,eng] 48-3856
Technical assessment of maglev system concepts. Lever, J.H., [1993,eng] 48-295
Tenth Five-Year Plan for road maintenance. Ando, A., [1988,jpn] 48-575
To salt or not to salt. What are the alternatives. Samuels, J., [1989,eng] 48-2043
Tohoku regional snow and cold weather operations. Tohoku Regional Construction Bureau, [1988,jpn] 48-578
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413
Winter maintenance in Minnesota today and tomorrow. Pletan, R.A., [1993,eng] 48-1207
Winter maintenance of national roads in Norway. Leland, T., [1993,eng] 48-1190
See [also]: Economic analysis

Countermeasures
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
Accident classification in the Arctic. Frimodt-Møller, B., et al, [1992,eng] 48-4963
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] 48-4964
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] 48-368
Aircraft icing. Lansford, H., [1990,eng] 48-1921
Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] 48-376
Arctic and Marine Oilspill Program—AMOP. Meikle, K.M., [1989,eng] 48-4138
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Avalanche control technology: a growing industry in France. Penniman, D., [1990,eng] 48-2361
Avoiding aircraft icing. Horne, T.A., [1993,eng] 48-2881
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] 48-4169
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Developing means of controlling weeds in meadow agrophytocenoses. D'iachkovskiĭ, V.V., [1988,rus] 48-915
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils. Bech, C., et al, [1993,eng] 48-3720
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] 48-4967
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] 48-3405
Fire protection strategics for the Northwest Territories. Marianayagam, C., et al, [1994,eng] 48-3365
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] 48-510
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] 48-5304
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Ice: escape & evade. Cox, B., [1990,eng] 48-1919
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] 48-4172
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] 48-479
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] 48-4961
Report on Alaska's oil-spill response 1991-92. Marilyn Heiman and Associates, [1993,eng] 48-4046
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] 48-4966
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] 48-2086
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] 48-467
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Snow avalanche protection program and structural design—case study of Maseguchi area. Fujisawa, K., [1994,eng] 48-4932
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-4026
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
Winter ground gremlins. Cox, B., [1990,eng] 48-1920
See [also]: Bank protection (waterways); Dust control; Flood control; Frost protection; Hail prevention; Ice prevention; Ice removal; Landslide control; Protection; Slope protection

Covering
Aircraft icing prevention. Czaplyski, V., [1993,eng] 48-2880
Anti-skid device for vehicle wheels with automatic positioning by securing members. Metraux, M., [1991,eng] 48-1365
Antiskid device having rotatable crossbands. Koshi, M., [1991,eng] 48-1732
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Side discharge anti-ice manifold. Miller, S.M., [1993,eng] 48-1654
Structure to prevent snow- and ice-adhesion e.g. to railway vehicle. Kansai Paint Company Ltd, [1993,eng] 48-4434

Crack propagation
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al, [1994,eng] 48-5585
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] 48-3973
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Influence of specimen geometry on the fracture toughness of freshwater ice. Stehn, L.M., et al, [1994,eng] 48-3969
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Modeling of fracture and damage in quasibrittle materials. Jirasek, M., [1993,eng] 48-3540
Multiple cracking and damage in brittle solids. Kachanov, M., [1992,eng] 48-1551
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Study of fracture toughness and fatigue of freshwater ice. Weber, L.J., [1994,eng] 48-3546
Tensile fracture of saline ice. DeFranco, S.J., [1993,eng] 48-3533
Use of a low-powered laser to measure crack front development. Weber, L.J., et al, [1993,eng] 48-98
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730

Cracking (fracturing)
Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Classification of distress of asphalt pavements. Nishizawa, T., et al, [1993,eng] 48-5078
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] 48-3973
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Effect of highway geometry on distress of asphalt pavements in cold climates. Abd El Halim, A.O., et al, [1993,eng] 48-5079
Field monitoring of frost-related sidewalk cracking. Baker, T.H.W., et al, [1994,eng] 48-3366
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4851
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] 48-5188
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Low temperature properties of asphalts and asphaltic mixtures. Moriyoshi, A., et al, [1993,eng] 48-5089
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403
Multiple cracking and damage in brittle solids. Kachanov, M., [1992,eng] 48-1551
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] 48-5067
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids. Yuge, F., et al, [1993,eng] 48-5068
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] 48-5066
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838

Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Significance of pavement design and materials in D-cracking. Final report. Stark, D.C., [1991,eng] 48-4899
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] 48-720
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] 48-5069
See [also]: Fracturing

Cracks
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion. Borisov, V.E., et al, [1990,rus] 48-59
See [also]: Ice cracks

Creep
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
See [also]: Ice creep; Rheology; Snow creep; Soil creep

Creep properties
See [also]: Rheology

Crevasse detection
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] 48-2620
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] 48-5160
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582

Crevasses
Glacier travel and crevasse rescue. Selters, A., [1990,eng] 48-1934
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389

Crossings
See [also]: Bridges; Ice crossings; River crossings

Crude oil
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Petroleum potential of the Beaufort and Chukchi Seas. Cooke, L.W., [1993,eng] 48-788
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292

Crustal structure
See [also]: Tectonics

Cryobiology
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] 48-4659
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] 48-2236
Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] 48-2957
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil. Nelson, L.M., et al, [1978,eng] 48-3410
Effects of freeze-thaw stress on bacterial populations in soil microcosms. Morley, C.R., et al, [1983,eng] 48-3411
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] 48-1028
Ice algae in the subarctic ocean: review. Taguchi, S., [1990,eng] 48-4673
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] 48-2451
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Membrane fatty acid analysis of antarctic bacteria. Rotert, K.R., et al, [1993,eng] 48-3823
Microalgae distribution on Signy I. Davey, M.C., et al, [1993,eng] 48-1359
Microbial network of the marginal ice zone in the Weddell Sea. Lancelot, C., et al, [1993,eng] 48-2136
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Natural ice as a component of biosphere. Ivanov, A.V., [1993,eng] 48-1085
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] 48-1071
Primary production in sea ice covered waters. Alexander, V., [1990,eng] 48-4665
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] 48-2941
Spectral light environment in sea ice. Kishino, M., [1993,eng] 48-1077
United States Antarctic Program. Science Program Plan 1991-92. U.S. National Science Foundation, [1991,eng] 48-3822
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656
Viable microorganisms in permafrost. Gilichinskiĭ, D.A., [1993,eng] 48-881

Cryogenic process
See [also]: Geocryology

Cryogenic soils
Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309
Cryogenesis and paleocryogenesis in soils of Mongolia. Maksimovich, S.V., [1993,eng] 48-2278
Cryogenic deformation in soils and their engineering geology consequence. Danilov, I.D., et al, [1994,eng] 48-3400
Delta^{13}C-analysis of permafrost soil samples of NE- Siberia. Pfeiffer, E.M., et al, [1993,eng] 48-2304
Determination of the amount of carbon in highly cryoturbated soils. Kimble, J.M., et al, [1993,eng] 48-2302
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] 48-2294
Factoral-genetic systematization of Middle Siberia subarctic soils. Ershov, IU.I., [1993,eng] 48-2279
Humus accumulation and soil formation in Svalbard. Låg, J., [1993,eng] 48-2303
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia. Grishkan, I.B., et al, [1993,eng] 48-2301
Micromorphology for diagnostics of the modern and paleocryosoils features. Tursina, T.V., [1993,eng] 48-2287
Mikrobiologiia krioaridnykh pochv (na primere Zabaĭkal'ia). Nimaeva, S.Sh., [1992,rus] 48-3633
New techniques in studying humic substances in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2305
Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway. Zhao, X.F., [1992,chi] 48-1488
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Problems of genesis and classification of north taiga soils of the European Russia. Vtiurin, G.M., [1993,eng] 48-2280
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Redoximorphic features in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2296
Role of water in the formation of the characteristics of forest soils in northern Tian Shan. Usupaev, Sh.E., [1990,rus] 48-1239
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Soil cover of river valleys of the Yamal Peninsula. Gafurov, F.G., [1993,eng] 48-2283
Soil formation and cryogenesis on the Russian plain during the last 125,000 years. Velichko, A.A., et al, [1993,eng] 48-2285
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] 48-2284
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Specificity of the phase transformations in the cryogenic saline sandy soils. Frolov, A.D., et al, [1993,eng] 48-2300
Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293

Cryogenic structures
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-2299
Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] 48-508

Cryogenic textures
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] 48-2541
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] 48-2542
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826

Cryogenics
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-3679
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] 48-341
Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270
Fracture behavior of composites at room and cryogenic temperature. Lau, O.H., [1993,eng] 48-3539
Freeze plug isolation for undersea gas line. Knott, T., [1994,eng] 48-5046
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] 48-5015
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Freezing-temperature depressions of aqueous potassium hydrogen carbonate. Apelblat, A., [1994,eng] 48-3813
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] 48-5391
Manual on the use of thermocouples in temperature measurement. Fourth edition.[1993,eng] 48-3080
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] 48-2216
Pellet injection technology. Combs, S.K., [1993,eng] 48-1762
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-4759
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] 48-5393
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] 48-5394
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Reports of planetary geology and geophysics program, 1990.[1991,eng] 48-3696
Safety in the operation of cryogenic systems at the South Pole. Francis, A., [1993,eng] 48-1358
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
See [also]: Refrigeration

Cryopedology
See [also]: Geocryology

Cryoplanation
See [also]: Altiplanation

Cryostats
See [also]: Thermostats

Cryoturbation
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,chi] 48-4396
Determination of the amount of carbon in highly cryoturbated soils. Kimble, J.M., et al, [1993,eng] 48-2302
Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] 48-2294
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] 48-2563
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498

Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992. [1993,eng] 48-2272
Redoximorphic features in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2296
Soils of Casey Station (Wilkes Land, Antarctica). Blume, H.P., et al, [1993,eng] 48-2281
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149
Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471

Crystal defects
Dislocation/grain boundary interactions in ice Ih under creep conditions. Liu, F.P., et al, [1994,eng] 48-5587
In-situ synchrotron x-ray topographic studies of polycrystalline ice. Baker, I., et al, [1994,eng] 48-5579

Crystal growth
Effect of hydrostatic pressure on the formation of air-hydrate crystals. Ikeda, T., et al, [1993,eng] 48-1865
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] 48-4167
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
See [also]: Ice crystal growth; Snow crystal growth

Crystal optics
See [also]: Ice crystal optics

Crystallization
See [also]: Ice crystal growth; Snow crystal growth

Crystallization nuclei
See [also]: Ice crystal nuclei

Crystals
See [also]: Ice crystals; Snow crystals

Crystospheres
See [also]: Ground ice

Cubic ice
Studies of cubic ice crystals. Finnegan, W.G., et al, [1991,eng] 48-4755

Culverts
Application of thermalpile to culvert engineering in permafrost region. Ding, J.K., et al, [1993,eng] 48-375
Culvert engineering in the permafrost region of Qinghai- Xizang Plateau. Zhang, J.Z., et al, [1993,chi] 48-4502
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,eng] 48-5261
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-885
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544

Currents
See [also]: Ocean currents; Tidal currents

Cutting
See [also]: Ice cutting

Cyclic variations
See [also]: Periodic variations

Cyclones
See [also]: Atmospheric disturbances

Czechoslovakia
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609

Damage
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Basic forms of damage to concrete by frost. Mironov, S.A., [1992,rus] 48-1393
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] 48-1256
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Deep freeze causes havoc.[1994,eng] 48-2884
Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] 48-1257
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,en;;] 48-529
Effect of water absorption on f ost damage of autoclaved lightweight concrete. Hirai, K., [982,eng] 48-5375
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo*. Hincha, D.K., et al, [1993,eng] 48-1255
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] 48-5304
Ice control in northern harbors. Saeki, H., [1992,eng] 48-1534
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] 48-1253
Multiple cracking and damage in brittle solids. Kachanov, M., [1992,eng] 48-1551
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] 48-479
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] 48-4290
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] 48-2088

Damping
Development of a new type of silicone rubber phase spacer. Kato, J., et al, [1993,eng] 48-849
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] 48-832
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] 48-2597
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] 48-850
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] 48-294
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054

Dams
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] 48-5548
Formation of floods caused by outbursts from snow dams. Kereмkulov, V.A., [1992,rus] 48-4453
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] 48-2086
See [also]: Earth dams; Ice dams

Data processing
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Applications of data base technology in frozen soil research. Xia, Z.Y., [1993,eng] 48-5251
Applications of data base technology in frozen soil researches. Xia, Z.Y., [1993,chi] 48-4397
Applications of Geographic Information Systems to the analysis of arctic contaminants. Palmer, H.D., et al, [1993,eng] 48-4558
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States. Wakeford, B., ed, et al, [1993,eng] 48-2707
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] 48-3229
Bibliographic data file of WDC-A. Shartran, M.J., [1978,eng] 48-2981
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Charting the bathymetry of Weddell Sea, Antarctica. Hinze, H., [1994,eng] 48-5424
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] 48-1353
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] 48-2354
Compilation of geotechnical information from the short range radar sites into a public domain database. Biggar, K.W., et al, [1994,eng] 48-3389
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] 48-5631
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
Development of an inventory of ice core data. Weaver, R.L., [1978,eng] 48-2980
Development of operations management systems for snow removal equipment. Oana, H., et al, [1988,jpn] 48-556
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340
Distributed numerical weather prediction: what lies beyond television's "Volksmeteorologie". Reiter, E.R., [1990,eng] 48-3127
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
Estimating snow water equivalent using a GIS. McManamon, A., et al, [1993,eng] 48-684
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Frozen ground database system for the Qinghai-Xizang Plateau. Xia, Z.Y., [1992,chi] 48-1489
General problems in database formation for the study of arctic marine ecosystems. Matishov, G.G., et al, [1992,rus] 48-2071
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] 48-2917
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307
How the Cold Regions database covers polar oceanography. Hibben, S.G., [1994,eng] 48-5093
Hydrologic modelling of flooding and runoff. Feldman, A.D., et al, [1993,eng] 48-680
Ice jam data collection. White, K.D., et al, [1994,eng] 48-5406
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] 48-827
Ice observations in the western Weddell Sea. Darling, M.N., et al, [1992,eng] 48-3772
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] 48-4037
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Improving the information content of ice manuals. Kazanskii, M.M., et al, [1992,rus] 48-2743
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930
International Northern Sea Route Program. Løvås, S.M., et al, [1994,eng] 48-5593
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Marine information systems as key-tools in port and ocean engineering in polar regions. Pfeiffer, K.D., et al, [1993,eng] 48-161
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] 48-2933
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613
Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] 48-1909
MST-88 multichannel temperature data logger. Wang, L.W., et al, [1993,chi] 48-4592
National Weather Service's transition to hydrologic modeling on scientific work stations. Farnsworth, R.K., et al, [1993,eng] 48-681
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] 48-4381
Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] 48-683
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] 48-2642
Outline of glaciological data categories.[1978,eng] 48-2983
Overview of the functions of WDC-A. Barry, R.G., [1978,eng] 48-2979
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] 48-2121
Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993. [1993,eng] 48-679
Radiation amplification factors: improved formulation accounts for large increases in ultraviolet radiation associated with antarctic ozone depletion. Booth, C.R., et al, [1994,eng] 48-4382

Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] 48-1197
Recent developments of the geographic snow information system. Granberg, H.B., et al, [1993,eng] 48-756
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Research developments in sophisticated automation technology for snow removal in cold regions. Sayama, S., et al, [1989,jpn] 48-676
Results of a survey on WDC-A activities. Shartran, M.J., [1978,eng] 48-2982
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] 48-1710
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Sea ice altimeter processing scheme at the EGDC. Laxon, S.W., [1994,eng] 48-4036
Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] 48-1323
Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] 48-4034
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowmelt runoff forecasting. Pangburn, T., et al, [1993,eng] 48-685
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] 48-4067
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391
Watershed modeling—spatial partitioning using GIS. Jeton, A.E., et al, [1993,eng] 48-687
Winter highway maintenance data, Vol.2. Grenney, W.J., et al, [1993,eng] 48-1847
Workshop on study of polar atmosphere and cryosphere, report. Kanzawa, H., [1993,jpn] 48-1185

Data transmission
Compilation of geotechnical information from the short range radar sites into a public domain database. Biggar, K.W., et al, [1994,eng] 48-3389
Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] 48-1064
Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] 48-1055
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] 48-1915
Workshop on study of polar atmosphere and cryosphere, report. Kanzawa, H., [1993,jpn] 48-1185

Dating
See [also]: Age determination

Davis Strait
Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] 48-4400

Decomposition
Applying field-expedient bioreactors and landfarming in Alaskan climates. Reynolds, C.M., et al, [1994,eng] 48-4004
Biodegradation of aircraft deicing fluids in soil at low temperatures. Klečka, G.M., et al, [1993,eng] 48-3265
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] 48-341
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] 48-3061
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716

Defects
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] 48-4703
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] 48-2749
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] 48-4812
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
See [also]: Crystal defects

Deflation
See [also]: Wind erosion

Deformation
Basic forms of damage to concrete by frost. Mironov, S.A., [1992,rus] 48-1393
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Deformation of a pressure vessel during failure caused by a technological defect. Ammosov, A.P., et al, [1990,rus] 48-55
Deformations of shoreline slopes of reservoirs in permafrost regions. Gogolev, E.S., [1992,rus] 48-4781
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] 48-3394
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] 48-486
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] 48-512
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Glaciers. Knight, P.G., [1993,eng] 48-3137
Global ice loads on arctic structures interpreted from foundation displacements. Hewitt, K.J., et al, [1994,eng] 48-3363
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels. Makarova, I.P., et al, [1990,rus] 48-56
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] 48-2536
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] 48-478
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] 48-4837
Method of determining the stress of local flow in areas of stress concentration at low climatic temperatures. Novopashin, M.D., et al, [1990,rus] 48-61
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Types of limiting conditions and factors which govern the cold resistance of supporting structures. Kuz'min, V.R., [1990,rus] 48-57
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] 48-1104
See [also]: Ice deformation; Plastic deformation; Rheology; Snow deformation

Defrosting
Air conditioning system with a conduit for deicing driveways. Albertson, M.E., et al, [1992,eng] 48-2241
Aircraft window defroster. Mukherjee, A., [1990,eng] 48-1874
Anti-frost system for a windshield of a motor vehicle. Tachimori, T., et al, [1990,eng] 48-2199
Anti-frost system for motor vehicle windshield utilizing saturated steam calculator. Takada, H., [1991,eng] 48-2228
Automobile heater using a latent heat storage device. Tsantis, A.P., et al, [1994,eng] 48-3094
Electrically heated window for vehicle having at least three heatable zones. Forr, J.P., et al, [1993,eng] 48-4429
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Heat recovery ventilator operating under frost conditions. Mercadier, Y., et al, [1993,eng] 48-870
Melting windshield ice.[1994,eng] 48-3616
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815
Windscreen deicing system for vehicle. Canitrot, D., et al, [1990,eng] 48-4421

Degradation
Concentration stability of four volatile organic compounds in soil subsamples. Hewitt, A.D., [1994,eng] 48-5411
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] 48-493
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] 48-529
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] 48-458
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049

Degree days
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] 48-3155
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Forecasting snowmelt volume from remote sensing data. Mushiake, N., et al, [1993,eng] 48-1681
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] 48-4401
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592

Dehumidification
Comparison of observed and modeled stratospheric water vapor. Mote, P.W., et al, [1993,eng] 48-636
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Moisture protection of the industrial building enclosures in a cold climate by using dry jets. IUr'ev,).F, [1994,eng] 48-3866
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] 48-624

Deicing
See [also]: Ice prevention; Ice removal

Deltas
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] 48-319
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475
Specific nature of delta development in river estuaries in the arctic zone of Siberia. Korotaev, V.N., [1992,rus] 48-4785

Dendritic ice
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] **48-4936**
Ice spikes—can you explain them. Perry, H.F., [1993,eng] **48-316**
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] **48-2894**
Unusual ice formations. Bjørbæk, G., [1994,eng] **48-4769**
Dendrochronology
See [also]: Age determination
Denmark
Danish operational slippery-road-warning system and prospects for the future. Voldborg, H., [1993,eng] **48-1205**
Guidelines for type approval of waterproofing materials for concrete bridges. Wegan, V., [1994,eng] **48-4002**
White Spot Program in Denmark. Kasai, A., [1987,jpn] **48-549**
—Skagen Spit
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] **48-1384**
Denmark Strait
Where does all the Cs and Sr in Greenland waters come from. Dahlgaard, H., [1993,eng] **48-4525**
Density (mass/volume)
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] **48-3011**
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] **48-601**
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] **48-1620**
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] **48-895**
Noncritical behavior of density fluctuations in supercooled water. Xie, Y.L., et al, [1993,eng] **48-1020**
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] **48-4715**
See [also]: Atmospheric density; Ice density; Snow density
Density (number/volume)
See [also]: Ion density (concentration); Particle size distribution
Depolarization
Ice depolarization during rainfall events. Maekawa, Y., et al, [1994,eng] **48-4214**
Deposits
See [also]: Alluvium; Avalanche deposits; Glacial deposits; Lacustrine deposits; Marine deposits; Moraines; Quaternary deposits; Sediments
Depth
See [also]: Permafrost depth; Snow depth
Depth hoar
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] **48-2110**
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] **48-2825**
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] **48-4653**
Growth rates of depth hoar (II). Fukuzawa, T., et al, [1992,jpn] **48-3204**
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] **48-1320**
Desert soils
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] **48-2286**
Mikrobiologiia krioaridnykh pochv (na primere Zabaĭkal'ia). Nimaeva, S.Sh., [1992,rus] **48-3633**
Deserts
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] **48-2286**
Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] **48-5230**
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] **48-3507**
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] **48-401**
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] **48-1995**
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] **48-2416**
Desiccation
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] **48-3346**
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] **48-1883**
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] **48-1260**
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] **48-1372**
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] **48-1250**
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] **48-3429**
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] **48-2416**
Design
5 years operational experience with the Swedish icebreaker *Oden*. Backman, A., [1994,eng] **48-4306**
Aircraft deicer system. Manda, L.J., et al, [1993,eng] **48-1940**
Aircraft deicing apparatus utilizing heat distributing means. Byles, J.D., [1991,eng] **48-1941**
Anti-icing valve. Norris, R.M., et al, [1989,eng] **48-4363**
Anti-skid device for vehicle wheels with automatic positioning by securing members. Metraux, M., [1991,eng] **48-1365**
Antiskid device having rotatable crossbands. Koshi, M., [1991,eng] **48-1732**
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] **48-4959**
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] **48-3351**
Applying skin effect current tracing to pipeline heating. Tracey, R.W., [1979,eng] **48-4140**
Arctic research vessel design would expand science prospects. Elsner, R., et al, [1993,eng] **48-2160**
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] **48-5145**
Avondale to build new icebreaker for USCG.[1993,eng] **48-3562**
BAS hot water drill: development and current design. Makinson, K., [1993,eng] **48-2739**
Basic considerations for the structural designer of buildings located in cold regions. Berretti, M.R., [1994,eng] **48-3348**
Bv 206: a proven concept in winter mobility. Ljunggren, J., [1993,eng] **48-1165**
Caterpillar Mobil-Trac system's application to cold regions mobility problems. Steinke, D., [1993,eng] **48-1178**
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] **48-3018**
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] **48-2045**
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] **48-4141**
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] **48-5017**
Controller valve for deicer. Hlavac, K.A., [1992,eng] **48-1368**
Cross-type clamp to join snow net cables. Bolliger, R., [1993,eng] **48-1284**
Design and construction of short range radar stations in the Canadian Arctic. Sanderson, K.J., [1994,eng] **48-3350**
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] **48-1736**
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] **48-3024**
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] **48-3390**
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] **48-1837**
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] **48-5008**
Design of piles in swelling soils. Shishkin, V.IA., [1990,eng] **48-1387**
Designing ice-resistant structures according to the limit strength criterion. Appolonov, E.M., [1992,rus] **48-749**
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] **48-3029**
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] **48-4176**
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] **48-1827**
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] **48-1735**
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] **48-2597**
Efficiency of using non-traditional hull lines for icebreakers. Ierusalimskiĭ, A.V., et al, [1994,eng] **48-4307**
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] **48-1371**
Electrically heatable windshield. Osada, K., et al, [1991,eng] **48-1733**
Electro-repulsive separation system for deicing. Adams, L.J., et al, [1989,eng] **48-1875**
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] **48-4967**
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] **48-1536**
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] **48-3370**
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] **48-3837**
Feasibility study for an ice-capable oceanographic ship. Strasel, E.S., et al, [1993,eng] **48-4253**
Finnish-Swedish lawsuit over icebreaker hull form.[1992,ger] **48-2814**
Flameless deicer. Brigham, W.D., et al, [1993,eng] **48-1285**
Floating semi-submersible drilling rig "Sever". Potapov, V.M., [1992,rus] **48-747**
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] **48-3379**
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] **48-1547**
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] **48-3391**
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] **48-4294**
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] **48-510**
Frost protected shallow foundations and freezing index climatography for residential construction. Crandell, J.H., et al, [1994,eng] **48-3398**
Heated windshield wiper blade and holder. Meltzer, E.A., et al, [1989,eng] **48-1873**
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] **48-1652**
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] **48-1731**
Ice breaker. Hellmann, J.H., et al, [1990,eng] **48-1938**
Ice cleat design and testing for tracked military vehicles. Osborne, M.D., [1993,eng] **48-1164**
Ice detector probe. Kleven, L.A., [1991,eng] **48-1942**
Ice technology—advancing slowly.[1992,eng] **48-3224**
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] **48-3752**
Icebreaker for North West Passage—a designer's perspective. Keinonen, A., [1994,eng] **48-4311**
Icebreaker *Louis S St Laurent* returns to service.[1993,eng] **48-3561**
Icebreaker M/S Fennica- Finnish shipbuilding know-how at its best. Lindqvist, R., [1993,eng] **48-2339**
Icebreaking ship. Jans, P., et al, [1993,eng] **48-1734**
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] **48-4289**
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] **48-2855**
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] **48-2506**
Increasing the reliability of a nuclear icebreaker steam-turbine plant with a closed air-water cooling system. Klimov, IU.S., et al, [1992,rus] **48-751**
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] **48-3201**
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] **48-2598**
Investigation of forces incurred during snow plowing. Steiger, W., et al, [1993,eng] **48-1170**
'Kapitan Sorokin'.[1992,eng] **48-3225**
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] **48-4172**
Link rod for aircraft deicer vehicle. Vestergaard, G., [1993,eng] **48-4960**
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] **48-2614**
Master mariner's perspective on the performance of icebreakers. Toomey, P.R.M., [1994,eng] **48-4310**
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] **48-403**
Melting windshield ice.[1994,eng] **48-3616**
Method and equipment for maintaining ice-free locks. Pontynen, E., [1993,eng] **48-1656**
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] **48-2084**
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] **48-4298**
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] **48-3384**
MSV Fennica, a novel icebreaker concept. Lohi, P., et al, [1994,eng] **48-4301**
MSV Fennica, new operational profile for an icebreaker. Harjula, A., et al, [1994,eng] **48-4305**
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] **48-3227**
Multipurpose underwater transport ship outfitted for the Arctic. Dronov, B.F., et al, [1992,rus] **48-748**
New concept in trail grooming—"the KRC Groomer". Alger, R.G., [1994,eng] **48-3371**
New heating concept for Inuit housing. Lim, H.T., [1979,eng] **48-4143**
New ships and offshore structures for the Arctic.[1992,rus] **48-750**
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] **48-1517**
Norman Wells air terminal building. Brown, K., et al, [1994,eng] **48-3349**
Operation and monitoring of sewage disposal by stack injection. Jensen, D.A., [1994,eng] **48-3387**
Operation and performance of sludge freezing bed at Fort McCoy, Wisconsin. Martel, C.J., [1994,eng] **48-3386**
Operational performance of the RV *Nathaniel B. Palmer*. Schultz, L.A., et al, [1994,eng] **48-4308**
Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] **48-3382**
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] **48-1544**
Pneumatic deicer. Ely, D.N., et al, [1988,eng] **48-4272**
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] **48-1364**
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] **48-3012**
Protective system against icebergs or floating objects. Mogridge, G.R., et al, [1993,eng] **48-1516**
Pump freeze corer for recent sediments. Renberg, I., et al, [1993,eng] **48-1527**

Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] **48-4300**
Retractable tire stud. Nicholas, J.G., [1993,eng] **48-1653**
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] **48-4303**
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] **48-3368**
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] **48-2567**
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] **48-1603**
Side discharge anti-ice manifold. Miller, S.M., [1993,eng] **48-1654**
Snow avalanche protection program and structural design—case study of Maseguchi area. Fujisawa, K., [1994,eng] **48-4932**
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] **48-4026**
Snow melting apparatus. Brady, B.D., [1993,eng] **48-1655**
Snow-plow. Grübler, W., et al, [1992,eng] **48-1367**
Snowplow mounting assembly for front-end loaders. Morrell, J.R., [1989,eng] **48-1519**
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] **48-4957**
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] **48-4483**
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] **48-2404**
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] **48-605**
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] **48-606**
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] **48-2806**
Traction stud. Musselman, J.R., et al, [1993,eng] **48-4366**
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] **48-438**
Tread for pneumatic tire intended for winter driving. Lagnier, A., [1991,eng] **48-1518**
Wear element for a scraping operation. Bain, R.L., et al, [1993,eng] **48-1283**
Wiper motor driving device for automotive vehicles. Nishikawa, I., [1990,eng] **48-4958**

Design criteria
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] **48-4012**
Arctic research vessel design would expand science prospects. Elsner, R., et al, [1993,eng] **48-2160**
Arctic tanker 80/20 hullform optimisation. Volume V—Optimisation of structure. R.P. Browne Marine Consultants Limited, [1993,eng] **48-4125**
Basic considerations for the structural designer of buildings located in cold regions. Berretti, M.R., [1994,eng] **48-3348**
Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] **48-462**
Caterpillar Mobil-Trac system's application to cold regions mobility problems. Steinke, D., [1993,eng] **48-1178**
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] **48-3018**
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] **48-351**
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] **48-2633**
Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] **48-402**
Construction on the DEW line. Cheever, M.S., [1957,eng] **48-291**
Cross-country mobility of tracked vehicles. Andersson, B., [1993,eng] **48-1169**
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] **48-3024**
Design concepts for Sakhalin offshore production platforms. Gulati, K.C., [1993,eng] **48-139**
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] **48-3390**
Design of icebreaker bows. Herkens, H., [1993,eng] **48-104**
Design of piles in swelling soils. Shishkin, V.IA., [1990,eng] **48-1387**
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] **48-552**
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] **48-1102**
Designing ice-resistant structures according to the limit strength criterion. Appolonov, E.M., [1992,rus] **48-749**
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] **48-3029**
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] **48-1103**
Empirical review of the design and performance of icebreakers. Dick, R.A., et al, [1989,eng] **48-3747**
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] **48-4296**
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] **48-2114**
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] **48-3405**
External design of houses in a cold and snow-fall region in the Tohoku District. Hirai, K., [1993,jpn] **48-1982**
Feasibility study for an ice-capable oceanographic ship. Strasel, E.S., et al, [1993,eng] **48-4253**
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] **48-2111**
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] **48-427**
Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] **48-460**
Frost protected shallow foundations and freezing index climatography for residential construction. Crandell, J.H., et al, [1994,eng] **48-3398**
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] **48-536**
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] **48-2213**
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] **48-1538**
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] **48-1037**
Ice forces: current practices. Croasdale, K.R., [1989,eng] **48-4137**
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] **48-4291**
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] **48-2022**
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] **48-2690**
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] **48-829**
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] **48-4980**
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] **48-5617**
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] **48-4302**
Icebreaker for North West Passage—a designer's perspective. Keinonen, A., [1994,eng] **48-4311**
Iceload investigations on insulators and aerial warning balls for overhead lines. Greisert, K., et al, [1993,eng] **48-833**
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] **48-4289**
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] **48-3842**
Investigation of forces incurred during snow plowing. Steiger, W., et al, [1993,eng] **48-1170**
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] **48-2735**
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] **48-2688**
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] **48-5391**
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] **48-2614**
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] **48-3923**
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] **48-359**
MSV Fennica, a novel icebreaker concept. Lohi, P., et al, [1994,eng] **48-4301**
MSV Fennica, new operational profile for an icebreaker. Harjula, A., et al, [1994,eng] **48-4305**
New generation Arktika class nuclear icebreaker feasibility study. Tsoi, L.G., [1994,eng] **48-4304**
Norman Wells air terminal building. Brown, K., et al, [1994,eng] **48-3349**
Operation and monitoring of sewage disposal by stack injection. Jensen, D.A., [1994,eng] **48-3387**
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] **48-521**
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] **48-472**
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] **48-4299**
Problems in designing pipelines for northern Russia. Dimov, L.A., [1993,rus] **48-743**
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] **48-5390**
Propulsion plant of the *James Clark Ross*.[1991,eng] **48-3615**
Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] **48-4300**
Research studies on the snow load on roofs (2). Tosaka, M., et al, [1993,jpn] **48-1997**
Return period conversion coefficient for ground snow load on design. Takahashi, T., et al, [1993,jpn] **48-1995**
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] **48-3368**
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] **48-2356**
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] **48-1560**
Selection of standard level for sea ice strength. Truskov, P.A., et al, [1993,eng] **48-1036**
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] **48-467**
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] **48-4290**
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] **48-1546**
Snow loads on transmission and distribution lines in Alaska. Peabody, A.B., [1993,eng] **48-842**
Specifying air-entrained concrete. Hover, K.C., [1993,eng] **48-2026**
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] **48-280**
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] **48-2685**
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] **48-5312**
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] **48-516**
Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] **48-149**
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] **48-357**
Towards rational deformation limit states for buried pipelines. Zhou, Z.L., et al, [1993,eng] **48-4313**
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] **48-1016**
Wooden bracing and wall length for a snow-proof house. Uchiyama, K., et al, [1993,jpn] **48-1998**
World-class icebreaker: the Canadian *Polar*-8. Brigham, L.W., [1986,eng] **48-2337**

See [also]: Building codes

Destructive effects

See [also]: Damage

Detection
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] **48-3064**
Arctic and Marine Oilspill Program—AMOP. Meikle, K.M., [1989,eng] **48-4138**
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] **48-4175**
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] **48-3229**
Cape Cod snowstorm. Ruminski, M., [1994,eng] **48-2761**
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] **48-2886**
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] **48-1353**
Cold regions performance of optical-fiber and pulsed near-infrared intrusion detection systems. Peck, L., [1994,eng] **48-1542**
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] **48-1355**
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] **48-1713**
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] **48-1348**
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] **48-135**
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] **48-4176**
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] **48-798**
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] **48-3075**
Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] **48-3758**
Fence-mounted intrusion detection systems. Peck, L., [1993,eng] **48-1093**
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] **48-494**
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] **48-2210**
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] **48-3589**
Impact of different backgrounds on thermal infrared IDS performance. Lacombe, J., [1993,eng] **48-1094**
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] **48-1296**
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] **48-2427**
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] **48-5414**
Northern and southern hemispheric polar flows—a comparative study. Rasmussen, E.A., [1993,eng] **48-2101**
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] **48-3144**
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] **48-1092**
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] **48-4700**
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] **48-5415**
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] **48-1513**
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] **48-927**
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] **48-284**
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] **48-2426**
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] **48-2467**
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] **48-5135**
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] **48-1327**

Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Soil sampling for volatile organic compounds. Hewitt, A.D., [1993,eng] 48-1955
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Statistical detection of climate change. MacNeil, I.B., [1993,eng] 48-1798
Thermal variation in vegetated or snow-covered background scenes and its effect on passive infrared systems. Peck, L., [1993,eng] 48-2535
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12
Vapor fortification in soil sampling for contaminants. Hewitt, A.D., [1993,eng] 48-1956
See [also]: Crevasse detection; Ice detection; Moisture detection

Deterioration
See [also]: Ice deterioration

Deuterium oxide
See [also]: Heavy water

Deuterium oxide ice
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] 48-4703
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] 48-2051
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] 48-2052
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] 48-5021

Development
See [also]: Economic development; Land development; Landscape development; Natural resources

Diagenesis
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] 48-456
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760

Dictionaries
Dictionary of snow and ice. Japanese Society of Snow and Ice (Nihon seppyo gakkai), [1990,jpn] 48-755
Multi-lingual index of permafrost terms. Van Everdingen, R.O., [1993,eng] 48-470

Dielectric properties
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] 48-1828
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] 48-1867
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] 48-5024
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] 48-5056
Electrical properties of ice. Petrenko, V.F., [1993,eng] 48-1000
Electromagnetic wave propagation in saline permafrost. Fedi-ukin, I.V., et al, [1993,eng] 48-381
Enhancement of radar imaging by snow permittivity. Mitsu-hashi, R., et al, [1993,eng] 48-3812
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] 48-4703
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] 48-2400
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies. Fujita, S., et al, [1993,eng] 48-1712
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
New results of structural investigations in the central part of the FRIS. Blindow, N., et al, [1992,eng] 48-236
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Specificity of the phase transformations in the cryogenic saline sandy soils. Frolov, A.D., et al, [1993,eng] 48-2300
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] 48-4271

Diesel engines
Alaska Energy Authority PV-diesel hybrid assessment and design program. Durand, S.J., et al, [1991,eng] 48-4757
Diesel engine cold starting with catalytically ignited recirculated exhaust gas. Sun, R.N., et al, [1994,eng] 48-3092
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
Improvement of the cold start qualities of diesel engines with swirl chambers. Mohr, H., et al, [1994,eng] 48-3084
Initial study of railplugs as an aid for cold starting of diesels. Shen, K., et al, [1994,eng] 48-3104
Lubricant effects on low-temperature diesel engine cold starting. Buck, W.H., et al, [1994,eng] 48-3099
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] 48-3227
New diesel low temperature operability test—AGELFI filtration test. Hamon, D.M., et al, [1994,eng] 48-3088
Transient response model of low-speed diesel engine in ice-breaking cargo vessels. Larmi, M., [1993,eng] 48-3647
Unique cold start method used on Volvo's new 12L unit injector diesel engine. Gustavsson, T., et al, [1994,eng] 48-3112

Diffraction
See [also]: X ray diffraction

Diffusion
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
See [also]: Ion diffusion; Thermal diffusion; Turbulent diffusion; Vapor diffusion

Digging
See [also]: Excavation

Discontinuous permafrost
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] 48-399
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] 48-402
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] 48-354
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] 48-4094
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] 48-356
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] 48-4395
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] 48-4101
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442
See [also]: Taliks

Dislocations (materials)
Creep effects on a laterally loaded pile. Domaschuk, L., et al, [1993,eng] 48-377
Dislocation/grain boundary interactions in ice Ih under creep conditions. Liu, F.P., et al, [1994,eng] 48-5587
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
In-situ synchrotron x-ray topographic studies of polycrystalline ice. Baker, I., et al, [1994,eng] 48-5579
Influence of pore characteristic on deformation during material freezing. Wang, J.C., et al, [1993,chi] 48-1432
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] 48-2749
Origin of dislocations in frozen sediments of the Yamal Peninsula. Velikotskii, M.A., [1992,rus] 48-1394
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442

Dispersions
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922

Disposal
See [also]: Snow disposal; Waste disposal

Distribution
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] 48-2584
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Flora of Siberia. Volume 5: Salicaceae—Amaranthaceae. Krasnoborov, I.M., ed, et al, [1992,rus] 48-3722
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] 48-501
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] 48-207
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376
Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] 48-84
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003
Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67
Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] 48-1833
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] 48-4825
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001

Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures. McKenna, R.F., [1992,eng] 48-1562
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] 48-533
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] 48-3609
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543
See [also]: Permafrost distribution; Sea ice distribution; Snow cover distribution

Disturbances
See [also]: Atmospheric disturbances

Diurnal variations
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] 48-3155
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] 48-3216
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Examining the influence of snow cover on morning air temperature. Hogan, A.W., et al, [1993,eng] 48-2948
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
On the breakup of the nocturnal cooling layer in a basin in snowmelt season. Kodama, Y., et al, [1992,jpn] 48-3207
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Water b...nce of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] 48-3656
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Docks
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-1126
See [also]: Piers; Wharves

Domes
See [also]: Pingos

Doped ice
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] 48-1867
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945

Drainage
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Experiments with deep drainage. Bäckman, L., [1993,swe] 48-2706
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] 48-4982
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
See [also]: Runoff; Subglacial drainage; Subsurface drainage; Surface drainage

Drains
Application of a snow water mixture transport system for urban areas. Isobe, K., et al, [1988,jpn] 48-561
Calculation of flow in the network of snow removing channel. Sugimori, M., [1992,jpn] 48-3158
Controlling the proportion of snow in snow removal drains. Kitahara, T., et al, [1992,jpn] 48-3164
Development of a circulation-type snow removal drain system. Sato, Y., [1989,jpn] 48-705
Development of snow melting works using sewage treatment water. Toyama Prefecture Civil Engineering Department, [1988,jpn] 48-660
Development of technology for hydraulic transport of snow. Kobayashi, T., et al, [1987,jpn] 48-281
Experiment on using overflow lines for snow melting. Kobayashi, T., et al, [1988,jpn] 48-663
Experimental study of snow removing channel system driven by water jets. Kobayashi, T., et al, [1993,jpn] 48-3189
Hydraulic conveying of snow and ice—development of a snow-fraction meter. Kitahara, T., et al, [1993,jpn] 48-3184
Hydraulic transport of snow by pipe. Umemura, A., et al, [1986,jpn] 48-32
Machines for feeder control in hydraulic transport of snow. Murayama, K., et al, [1992,jpn] 48-3159
Pulsed flow control device for snow removal drains. Kato, K., et al, [1992,jpn] 48-3160
Roads in snowy and cold regions and bypass-type snow melting and removal drains. Sato, K., [1988,jpn] 48-569
Snow removal drain at Kutchian on National Highway 5. Nakamura, E., [1986,jpn] 48-22
Snow removal system by gravity. Kobayashi, T., [1993,jpn] 48-3172
Snow removal system using existing roadside ditches. Isobe, K., et al, [1986,jpn] 48-265
Snow transport in an open channel on mild slope configuration. Fukushima, Y., et al, [1993,jpn] 48-3188
Study on snow-water mixture flow in snow drain. Sasaki, M., et al, [1993,jpn] 48-1973
Surface snow removal system by snow removal pipe. Isobe, K., et al, [1986,jpn] 48-24

Drake Passage
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659

Dredging
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-2097
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Icy water suction dredger two-piece overflow pipe. Laitera, J., [1984,eng] 48-4417

Drift
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] 48-1291
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986. Colony, R.L., et al, [1989,eng] 48-3333
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Below the tip of an iceberg. Crane, D., [1993,eng] 48-5366
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] 48-4740
Collision events between adjacent ice floes driven by an ocean wave field. Rottier, P.J., et al, [1993,eng] 48-4355
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] 48-4730
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Coupled ice-ocean model of the Beaufort and Chukchi Seas. Hedstrom, K.S., et al, [1993,eng] 48-791
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] 48-4354
Drift and spread of oil in broken ice—field experiment. Vefsnmo, S., et al, [1994,eng] 48-5567
Dynamic model of ice-structure interaction. Bekker, A.T., et al, [1993,eng] 48-1054
Effect of the equatorial Pacific on Okhotsk Sea ice. Tachibana, Y., et al, [1990,jpn] 48-4672
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al, [1993,eng] 48-176
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone. Truskov, P.A., et al, [1993,eng] 48-1048
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Experimental study on the control of ice movement with a new design of ice boom. Enoki, K., et al, [1993,eng] 48-4352
Experiments of crushing interaction between ice floes. Sayed, M., et al, [1993,eng] 48-4357
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] 48-1781
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
History of Hobson's Choice Ice I. Jeffries, M.O., et al, [1993,eng] 48-898
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Ice conditions. Dmitriev, N.E., et al, [1992,eng] 48-2909
Ice cover of the Arctic basin. Romanov, I.P., [1992,rus] 48-4148
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice observation on a platform in Bohai Sea. Yue, Q.J., et al, [1994,eng] 48-5557
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Ice transference of Bering Strait. IAkunin, L.P., et al, [1993,eng] 48-4348
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Iceberg data from annual expeditions in the Barents Sea. Spring, W., et al, [1993,eng] 48-130
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Sallourn, J.E., [1993,eng] 48-5380
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
Initial conditions of ice-structure interaction problem. Bekker, A.T., et al, [1994,eng] 48-3026
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
International Arctic Buoy Program data report for 1 January 1992-31 December 1992. Colony, R.L., et al, [1993,eng] 48-3285
Laboratory and numerical studies of ice release. Sarraf, S., et al, [1994,eng] 48-5540
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Level ice thickness and multiyear drift in the Arctic. Mironov, E.U., [1994,eng] 48-5603
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al, [1992,rus] 48-3723
Minimum and maximum drift ice extent in the southern ocean in 1991. Romanov, A.A., [1992,eng] 48-732
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] 48-3450
Monthly mean sea ice data from ice prediction models. Posey, P.G., et al, [1991,eng] 48-4731
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452
Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] 48-1055
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al, [1992,rus] 48-1912

Numerical simulation of pack ice movement using the momentum conservation method. Rheem, C.K., et al, [1993,jpn] 48-1052
Numerical simulations of mesoscale rheology of broken ice fields. Frederking, R.M.W., et al, [1993,eng] 48-166
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] 48-171
Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] 48-3157
Particulars of weather and ice conditions in the Arctic in 1991. Kuraïov, V.K., et al, [1992,eng] 48-731
Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] 48-128
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd. Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] 48-3433
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127
Response of distinct ice floes to ocean gravity waves. Løset, S., et al, [1994,eng] 48-5563
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992. Spring, W., et al, [1993,eng] 48-129
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] 48-1511
Satellite time series monitoring of Okhotsk Sea ice in 1992. Ishida, K., et al, [1993,jpn] 48-1067
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] 48-3455
Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery. Emery, W., et al, [1993,eng] 48-3281
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] 48-3727
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] 48-3447
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] 48-2125
Use of numerical methods in ice conditions examination. Pokrashenko, S.A., [1993,eng] 48-1090
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] 48-3446
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] 48-4162
Vortex flows near the sea ice edge. Marchenko, A.V., et al, [1993,eng] 48-4216
See [also]: Snowdrifts

Drift stations
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986. Colony, R.L., et al, [1989,eng] 48-3333
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] 48-4730
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
International Arctic Buoy Program data report for 1 January 1992-31 December 1992. Colony, R.L., et al, [1993,eng] 48-3285
International Arctic Buoy Project.[1993,eng] 48-3320
Method and apparatus for monitoring ice masses. Page, R.D., [1989,eng] 48-4074
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452
"North Pole" drifting stations today and tomorrow. Ippolitov, V.S., [1992,eng] 48-738
Regional current measurements in the western Weddell Sea. Muench, R.D., et al, [1992,eng] 48-3776
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] 48-2125
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079

Drill core analysis
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Climate history of the last 150,000 years from Greenland ice cores. Moore, J.C., [1994,eng] 48-5569
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] 48-1233
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] 48-5354
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Development of an inventory of ice core data. Weaver, R.L., [1978,eng] 48-2980
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] 48-2388
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] 48-2711
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Ice core drilling in central Greenland. Moore, J.C., [1993,eng] 48-3322
Ice core processing at Dome F, Antarctica. Shoji, H., et al, [1994,eng] 48-5355
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] 48-1497
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] 48-4204
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra. Faustov, S.S., et al, [1993,rus] 48-3743
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] 48-364
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Preliminary depth-age scale of the GISP2 ice core. Meese, D.A., et al, [1994,eng] 48-5407
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Sediment descriptions, Bransfield Strait 1986-1987. Bryan, J.R., ed, et al, [1993,eng] 48-3816
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Taylor Dome ice-core study. Grootes, P.M., et al, [1992,eng] 48-2626
Viable microorganisms in permafrost. Gilichinskiĭ, D.A., [1993,eng] 48-881
See [also]: Coring; Ice cores

Drilling
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
Borehole drilling for sewage disposal at Asuka Station, East Antarctica. Ishizawa, K., et al, [1994,eng] 48-5347
Borehole logging device at Dome F, Antarctica. Naruse, R., et al, [1994,eng] 48-5351
Boring new ground.[1994,eng] 48-3786
BZXJ super light ice core drill. Zhu, G.C., et al, [1994,eng] 48-5334
Deep core drilling in ice. Hansen, B.L., [1994,eng] 48-5326
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] 48-1264
Development of a JARE deep ice core drill system. Tanaka, Y., et al, [1994,eng] 48-5337
Development of Japanese mechanical drills—personal reminiscences. Suzuki, Y., [1994,eng] 48-5325
Development of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5329
Drilling fluid for Dome F project in Antarctica. Fujita, S., et al, [1994,eng] 48-5361
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland. Schwander, J., et al, [1994,eng] 48-5335
Experiment on ice cutting under high liquid pressure and low temperature. Narita, H., et al, [1994,eng] 48-5338
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Fluids for use in deep ice-core drilling. Gosink, T.A., et al, [1994,eng] 48-5360
Future technical developments for the Polar Ice Coring Office 13.2 cm ice coring drill. Stanford, K.L., [1994,eng] 48-5331
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Hole liquids and gaskets for the ISTUK deep ice core drill. Gundestrup, N.S., et al, [1994,eng] 48-5359
Ice auger extractor for retrieving augers or similar devices from a bore hole. Walsh, M.R., [1990,eng] 48-2168
Ice coring and drilling technologies developed by the Polar Ice Coring Office. Kelley, J.J., et al, [1994,eng] 48-5328
Instrumentation for the PICO deep ice coring drill. Hancock, W.H., [1994,eng] 48-5332
KEMS-112 electromechanical ice core drill. Kudriashov, B.B., et al, [1994,eng] 48-5340
New improved version of the ISTUK ice core drill. Johnsen, S.J., et al, [1994,eng] 48-5327
New short borehole logging tool. Hansen, B.L., et al, [1994,eng] 48-5348
Operational considerations of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5330
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Rapid deployment of camp facilities utilizing point-supported structures. Mimken, V.B., et al, [1994,eng] 48-5364
Technical aspects of deep ice drilling on Law Dome. Morgan, V., et al, [1994,eng] 48-5333
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
UCPH borehole logger. Gundestrup, N.S., et al, [1994,eng] 48-5349
See [also]: Offshore drilling; Rock drilling; Rotary drilling

Drilling fluids
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] 48-3598
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers. Gosink, T.A., et al, [1990,eng] 48-4686
Drilling fluid for Dome F project in Antarctica. Fujita, S., et al, [1994,eng] 48-5361
Drilling of glacier boreholes with a hydrophilic liquid. Zagorodnov, V.S., et al, [1994,eng] 48-5341
Fluids for use in deep ice-core drilling. Gosink, T.A., et al, [1994,eng] 48-5360
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Hole liquids and gaskets for the ISTUK deep ice core drill. Gundestrup, N.S., et al, [1994,eng] 48-5359
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Interaction of hydrophilic liquid with ice. Nagornov, O.V., et al, [1993,eng] 48-875
Permafrost zone well cementing. Gridnev, S.M., et al, [1992,eng] 48-4073
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324

Drills
Floating semi-submersible drilling rig "Sever". Potapov, V.M., [1992,rus] 48-747
See [also]: Ice coring drills; Ice drills; Thermal drills
Drops (liquids)
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] 48-3541
See [also]: Cloud droplets
Dry ice (trademark)
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] 48-2371
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
Drying
Development of refrigerating cycling bath. Hou, Z.J., et al, [1993,chi] 48-1460
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
See [also]: Freeze drying
Ducts
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] 48-294
Dust
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] 48-2713
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] 48-988
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Rock-forming metals and Pb in modern Alaskan snow. Hinkley, T.K., [1993,eng] 48-3641
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] 48-3542
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116
See [also]: Cosmic dust
Dust control
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Dynamic loads
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] 48-5618
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Creep deflection of ice plate under variable loading. Wu, Z., et al, [1994,eng] 48-3016
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] 48-395
Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] 48-3809
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] 48-3394
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis. Kestler, M.A., et al, [1994,eng] 48-3369
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] 48-5560
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] 48-1223
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] 48-1235
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730
Dynamic properties
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Earth dams
Construction and methods of erecting hydrotechnical structures in the northern zone. Erakhtin, B.M., [1993,rus] 48-1522
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] 48-3959
Earth fills
Method of treating backfill. Suzuki, T., [1990,eng] 48-2164
See [also]: Rock fills
Earthquakes
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Earthquake Alaska—are we prepared. Combellick, R.A., ed, et al, [1994,eng] 48-5035
Earthquake response of offshore structures in sea ice (part 4). Adachi, H., et al, [1990,jpn] 48-4669
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] 48-1035
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824
See [also]: Seismology
Earthwork
See [also]: Excavation; Trenching; Tunneling (excavation)
Echo sounding
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al, [1991,eng] 48-4733
Ecology
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Abstracts. International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993, [1993,eng] 48-796
Agricultural melioration and cryoecology in permafrost conditions. Gavril'ev, P.P., [1992,rus] 48-4790
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Arctic and alpine biodiversity: patterns, causes and ecosystem consequences. Chapin, F.S., III, et al, [1994,eng] 48-4163
Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123
Biological recultivation in the North (theory and practice). Archegova, I.B., ed, [1992,rus] 48-4147
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Ecological aspects of the development of the hydro-energy potential of the cryolithozone. Biianov, G.F., et al, [1992,rus] 48-4780
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991. Sapozhnikov, V.V., [1992,eng] 48-2606
Ecological-economic aspects of using natural resources in the European northeast of the USSR. Bratsev, A.P., ed, [1990,rus] 48-5401
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers. Kalabin, G.V., ed, et al, [1992,rus] 48-2117
Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] 48-2540
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] 48-4380
Environmental protection in the design of land irrigation and water supply (Yakutia). Fedorov, P.F., [1992,rus] 48-4792
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity in the Arctic and Antarctic; proceedings. International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993, [1993,eng] 48-4510
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas. Hain, S., et al, [1994,eng] 48-3039
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Ice algae and kisel algae distribution. Hellum, C., [1992,eng] 48-2907
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology.[1994,eng] 48-2482
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801
Life cycle of a calanoid copepod in the Weddell Sea. Kurbjeweit, F., et al, [1993,eng] 48-594
Life in the cracks of antarctic sea ice. Schminke, H.K., et al, [1993,eng] 48-1665
Limnological research in Terra Nova Bay area. Guilizzoni, P., et al, [1992,eng] 48-4767
Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] 48-1833
Natural ice as a component of biosphere. Ivanov, A.V., [1993,eng] 48-1085
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands). Klöser, H., et al, [1994,eng] 48-3042
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] 48-1071
Phytoplankton ice-edge blooms in the northwestern Weddell Sea. Lancelot, C., et al, [1993,eng] 48-596
Planned industrial regions in the Amur taiga zone. Rianskiĭ, F.N., [1989,rus] 48-902
Plant resources of Siberia: their contemporary state and protection. Koropachinskiĭ, I.IU., et al, [1994,eng] 48-2479
Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] 48-2121
Problem of conservation of the water basin in the Krasnoyarsk region. Nepomniashchaia, N.V., [1993,rus] 48-1524
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radioecology of the northern and northwestern part of Russia. Aleksakhin, R.M., et al, [1993,eng] 48-4563
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Role of clouds and ozone on spectral ultraviolet-B radiation. Gautier, C., et al, [1994,eng] 48-4385
Seabirds and fur seals near the Antarctic Peninsula in winter 1986. Whitehouse, M.J., et al, [1994,eng] 48-5153
Site of Special Scientific Interest, Antarctica. Kanda, H., [1992,jpn] 48-2446
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] 48-2941
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North. Vysotskiĭ, V.N., et al, [1989,rus] 48-906
Solar ultraviolet irradiance at Palmer Station, Antarctica. Frederick, J.E., et al, [1994,eng] 48-4383
Spectral light environment in sea ice. Kishino, M., [1993,eng] 48-1077
Ultraviolet radiation in Antarctica: measurements and biological effects. Weiler, C.S., ed, et al, [1994,eng] 48-4379
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656
See [also]: Ecosystems; Paleoecology; Plant ecology
Economic analysis
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Climate change—its possible impact on the environment and the people of northern regions. Roots, F., [1992,eng] 48-2037
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] 48-2456
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599

Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992. [1992,eng] 48-2030
Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] 48-3382
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] 48-2091
Selection of sanitation alternatives: a strategy for remote Alaskan communities. Olofsson, J.A., et al, [1994,eng] 48-3383
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskii, A.V., et al, [1989,rus] 48-310
See [also]: Cost analysis

Economic development
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] 48-2033
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] 48-1139
Arctic perspectives.[1992,eng] 48-1810
Arctic policy bibliography. Green, K.W., et al, [1991,eng] 48-4939
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] 48-1019
Canada Water Act Annual Report—1988-90. Environment Canada, [1989,eng] 48-3035
Challenges within oil and gas exploration and production in arctic regions. Usterud, O., et al, [1994,eng] 48-5562
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] 48-4236
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-2097
Ecological-economic aspects of using natural resources in the European northeast of the USSR. Bratsev, A.P., ed, [1990,rus] 48-5401
Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] 48-2540
Fast preparation and more accurate utilization of the peat production area. Leiviskä, V., [1991,fin] 48-3678
Forest resources of Siberia. Sokolov, V.A., et al, [1994,eng] 48-2481
Forging new partnerships in the north: the Northern Forum and the Barents Euro- Arctic Council. Lange, M.A., [1993,eng] 48-3321
Future aspects of cities in snowy region. Izumi, M., et al, [1993,jpn] 48-1977
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994. [1994,eng] 48-4404
Law of the sea and the polar regions. Rothwell, D.R., et al, [1994,eng] 48-5120
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] 48-1779
Planned industrial regions in the Amur taiga zone. Rianskii, F.N., [1989,rus] 48-902
Problems in the use of natural resources in the taiga zone. Mikhailov, IU.P., ed, et al, Expanded session of the Scientific Council of the Siberian Branch of the Academy of Sciences of the USSR on the combined development of taiga territories, 16th, Irkutsk, 24-25 Nov. 1987, [1989,rus] 48-900
Problems of power and transport industries in the Asian polar regions of Russia. Bredikhin, V.I., et al, [1994,eng] 48-3949
Proceedings. Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992, [1993,eng] 48-1784
Producing Prudhoe Bay. Sohio-BP (Standard Oil Company of Ohio-British Petroleum Company), [1978,eng] 48-3328
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] 48-1018
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] 48-3993
Regional economy along the Okhotsk Sea in Hokkaido. Furuya, A., et al, [1994,eng] 48-3992
Russian arctic shelf hydrocarbon development to proceed. George, D., [1993,eng] 48-1017
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
Russia's far north opened up for West. MacKenzie, D., [1993,eng] 48-2803
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] 48-527
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North. Vysotskii, V.N., et al, [1989,rus] 48-906
Spring thaw in the land of Cold War coal. Abbott, S., [1993,eng] 48-1648
Strategy of developing regions in the European northeast of the USSR. Bratsev, A.P., et al, [1990,rus] 48-5402
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298
Technological, environmental and legal issues in northern development. Lange, M.A., [1994,eng] 48-3995
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269
See [also]: Land development; Landscape development; Natural resources

Ecosystems
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Abstracts. International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993, [1993,eng] 48-796
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726
Arctic and alpine biodiversity: patterns, causes and ecosystem consequences. Chapin, F.S., III, et al, [1994,eng] 48-4163
Arctic coastal ecosystems. Bliss, L.C., [1993,eng] 48-1123
Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898
Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123
Arctic marine ecosystems. Alexander, V., [1992,eng] 48-1261
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States. Wakeford, B., ed, et al, [1993,eng] 48-2707
Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed, et al, [1992,eng] 48-2694
Biological recultivation in the North (theory and practice). Archegova, I.B., ed, [1992,rus] 48-4147
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] 48-4822
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Climate change—its possible impact on the environment and the people of northern regions. Roots, F., [1992,eng] 48-2037
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
CO_2 monitored fluxes from northern terrestrial ecosystems. Zimov, S.A., et al, [1993,eng] 48-2310
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Dry coastal ecosystems of Alaska. Batten, A.R., et al, [1993,eng] 48-1124
Dry coastal ecosystems of Greenland. Daniels, F.J.A., et al, [1993,eng] 48-1125
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] 48-2918
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers. Kalabin, G.V., ed, et al, [1992,rus] 48-2117
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
General problems in database formation for the study of arctic marine ecosystems. Matishov, G.G., et al, [1992,rus] 48-2071
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] 48-204
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment. Walker, D.A., et al, [1993,eng] 48-2970
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] 48-4734
Migration of plutonium in arctic terrestrial ecosystems. Jaakkola, T., et al, [1993,eng] 48-4562
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] 48-5152
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
On computer simulation of atmospheric transport of radioactive tracers to the arctic ecosystem. Pudykiewicz, J.A., [1993,eng] 48-4559
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] 48-2121
Psychrophilic methanotrop from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661
Radioecology of the northern and northwestern part of Russia. Aleksakhin, R.M., et al, [1993,eng] 48-4563
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] 48-527
Site of Special Scientific Interest, Antarctica. Kanda, H., [1992,jpn] 48-2446
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] 48-2416
Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution. Makarova, T.D., [1992,rus] 48-2118
See [also]: Ecology; Forest ecosystems; Paleoecology; Plant ecology

Education
Changing circumpolar north: opportunities for academic development. Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992, [1994,eng] 48-4403
Geography meetings, research, and education in the United States. Shi, Y.F., [1993,chi] 48-4570
Growth of avalanche education in Japan. Nitta, R., et al, [1994,eng] 48-3277
Ice spikes—can you explain them. Perry, H.F., [1993,eng] 48-316
New course in management of cold regions construction. Bennett, F.L., [1993,eng] 48-4935
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772
UNIS—a new aspect of arctic education. Jørgensen, T.S., [1994,eng] 48-3994
Use of computer-aided learning packages in glaciology and glacial geology. Hart, J.K., et al, [1993,eng] 48-3602

Elastic properties
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] 48-3250
Dynamic elastic modulus and strength of sanira ed frozen silt. Ping, H., et al, [1993,eng] 48-395
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] 48-2380
Influence of various factors on dynamic elastic modulus of frozen silt. He, P., et al, [1992,chi] 48-1420
Multiple cracking and damage in brittle solids. Kachanov, M., [1992,eng] 48-1551
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] 48-1235
See [also]: Ice elasticity; Viscoelasticity

Elastic waves
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
New method to obtain 3-D Green's functions for anisotropic solids. Wang, C.Y., et al, [1993,eng] 48-5016
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054

Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Electric cables
See [also]: Transmission lines
Electric charge
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
See [also]: Charge transfer; Static electricity
Electric corona
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] 48-851
Development of a new type of silicone rubber phase spacer. Kato, J., et al, [1993,eng] 48-849
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] 48-850
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] 48-4342
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] 48-4339
Insulation properties of atmospheric iced insulators installed in high mountains. Sugawara, N., et al, [1993,eng] 48-848
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] 48-71
Withstand voltage and flashover performance of iced insulators. Sugawara, N., et al, [1993,eng] 48-847
Electric equipment
Electro-repulsive separation system for deicing. Adams, L.J., et al, [1989,eng] 48-1875
Hybrid generator with deposited snow cooling. Satoh, K., [1993,jpn] 48-1981
Ice thickness and particle size from an eddy current deicer. Smith, S.O., [1994,eng] 48-3110
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] 48-3227
Self-contained apparatus for de-icing aircraft surfaces using magnetic pulse energy. Zieve, P.B., [1990,eng] 48-2191
Electric fields
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] 48-4969
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] 48-2859
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Electric heating
Aircraft deicing apparatus utilizing heat distributing means. Byles, J.D., [1991,eng] 48-1941
Aircraft icing prevention. Czaplyski, V., [1993,eng] 48-2880
Aircraft propeller with electric deicers. Bowser, A.J., et al, [1991,eng] 48-2247
Aircraft window defroster. Mukherjee, A., [1990,eng] 48-1874
Applying skin effect current tracing to pipeline heating. Tracey, R.W., [1979,eng] 48-4140
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Decreasing energy expenditures for warming engines before ignition. Reznik, L., et al, [1994,eng] 48-3085
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] 48-1371
Electric-heater roof snow melter. Yoshida, N., et al, [1993,jpn] 48-1986
Electrically heatable windshield. Osada, K., et al, [1991,eng] 48-1733
Electrothermal timed de-icing apparatus for aircraft air foils. Kugelman, M.M., et al, [1989,eng] 48-5521
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Heated windshield wiper blade and holder. Meltzer, E.A., et al, [1989,eng] 48-1873
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
Hybrid electronic control system and method for cold weather garment. Batcheller, B.D., et al, [1991,eng] 48-2250
Method of making an integral heater for composite structure. Bayless, J.D., Jr., et al, [1990,eng] 48-2267
Rock and frozen ground breaking device using heating elements. Kharitonov, M.A., et al, [1992,eng] 48-5533
Roof snow sliding system with electric heater. Harada, H., et al, [1993,jpn] 48-1987
Snow melting heater mats. Bayless, R.E., et al, [1990,eng] 48-2263
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles. Higashiyama, Y., et al, [1993,jpn] 48-1989
Solid-state sequencing controller for timed de-icing. Kugelman, M.M., et al, [1988,eng] 48-5520
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] 48-4271
Electric power
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
Alaska Energy Authority PV-diesel hybrid assessment and design program. Durand, S.J., et al, [1991,eng] 48-4757
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] 48-5613
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] 48-3431
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] 48-1828
Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2. Mai, H.N., et al, [1994,eng] 48-3958
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Construction and methods of erecting hydrotechnical structures in the northern zone. Erakhtin, B.M., [1993,rus] 48-1522
Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] 48-402
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] 48-1837
Development and regional implementation of snow electric power generation systems. Tsushima, K., [1986,jpn] 48-29
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Ecological aspects of the development of the hydro-energy potential of the cryolithozone. Biianov, G.F., et al, [1992,rus] 48-4780
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] 48-4109
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Hybrid generator with deposited snow cooling. Satoh, K., [1993,jpn] 48-1981
Hydroelectric station with inflatable hoses for ice control. Kashevarov, IU.B., [1992,eng] 48-5532
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] 48-5549
Problems of power and transport industries in the Asian polar regions of Russia. Bredikhin, V.I., et al, [1994,eng] 48-3949
Regional implementation and industrial use of snow. Yamamura, E., [1986,jpn] 48-30
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Shoreline processes at the Viliuysk hydroelectric plant reservoir. Konstantinov, I.P., [1992,rus] 48-4782
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] 48-1878
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329
Use of steam-gas plants in Northern regions. Stepanov, I.R., [1992,rus] 48-4150
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815
See [also]: Nuclear power; Wind power generation
Electrical conductivity
See [also]: Electrical resistivity
Electrical insulation
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] 48-851
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] 48-1828
Development of a new type of silicone rubber phase spacer. Kato, J., et al, [1993,eng] 48-849
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] 48-5056
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] 48-850
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] 48-4342
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341
Ice accumulation characteristics on Hydro-Quebec HV insulators. Drapeau, J.F., et al, [1993,eng] 48-846
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] 48-4339
Insulation properties of atmospheric iced insulators installed in high mountains. Sugawara, N., et al, [1993,eng] 48-848
Withstand voltage and flashover performance of iced insulators. Sugawara, N., et al, [1993,eng] 48-847
Electrical logging
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
MST-88 multichannel temperature data logger. Wang, L.W., et al, [1993,chi] 48-4592
Electrical measurement
Capacitive ice detector for aircraft. Pruzan, D.A., et al, [1993,eng] 48-2638
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] 48-2859
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502
Electrical properties
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Ice-forming properties of organic reagents. IAtsimirskii, V.K., et al, [1989,eng] 48-3748
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] 48-1603
See [also]: Dielectric properties; Ice electrical properties; Snow electrical properties
Electrical prospecting
See [also]: Electromagnetic prospecting
Electrical resistivity
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] 48-1828
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2828
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] 48-1867
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores. Taylor, K.C., et al, [1993,eng] 48-1899
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] 48-3258
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Thermophysical and electric properties of saline frozen soils. Frolov, A.D., et al, [1993,eng] 48-890
Electricity
See [also]: Atmospheric electricity; Cloud electrification; Hailstone electrification; Static electricity
Electromagnetic properties
Borehole electrometry of permafrost zone. Snegirev, A.M., [1993,eng] 48-532
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Electromagnetic prospecting
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] 48-2701
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude. Kovacs, A., et al, [1993,eng] 48-1004
Investigation of sea ice interaction with SHF-electromagnetic field. Gavrilo, V.P., et al, [1993,eng] 48-1903
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393

Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] 48-2064
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513

Electron microscopy
See [also]: Scanning electron microscopy

Electron paramagnetic resonance
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756

Electron spin resonance
See [also]: Electron paramagnetic resonance

Electronic equipment
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] 48-2470

Elevation
See [also]: Altitude

Embankments
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] 48-368
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia. Leibman, M.O., [1994,eng] 48-3408
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397

Emergency shelters
See [also]: Shelters

Engine starters
Bringing agricultural tractor hydraulics to life at -30 C. Macdonald, D.J., [1994,eng] 48-3097
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Cold weather demonstration of the AH-64A helicopter. Final report. Riley, M.N., et al, [1993,eng] 48-1129
Cyclohexyl nitrate fuel additive for cold starting. Dolmatov, V.IU., et al, [1992,eng] 48-5510
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098
Diesel engine cold starting with catalytically ignited recirculated exhaust gas. Sun, R.N., et al, [1994,eng] 48-3092
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] 48-3086
Engines in passenger cars under subzero conditions. Lemke, H., [1994,eng] 48-3106
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
Improvement of the cold start qualities of diesel engines with swirl chambers. Mohr, H., et al, [1994,eng] 48-3084
Improving the cold start of spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3090
Improving the cold starting ability of an engine. Gillbrand, P., et al, [1990,eng] 48-2202
Initial study of railplugs as an aid for cold starting of diesels. Shen, K., et al [1994,eng] 48-3104
Lube basestock manufacturing technology and engine oil pumpability. Rossi, A., [1994,eng] 48-3100
Lubricant effects on low-temperature diesel engine cold starting. Buck, W.H., et al, [1994,eng] 48-3099
Method and apparatus for thermal control of automotive components. Inkmann, M.S., et al, [1992,eng] 48-2240
Military vehicles for cold climates. Falk, A., [1994,eng] 48-3946
Pre-oiling system during cold-start of SI engine. Parpola, M., et al, [1994,eng] 48-3087
Proceedings. Subzero Engineering Conditions Conference, Brainerd, MN, Feb. 21-24, 1994, [1994,eng] 48-3083
Unique cold start method used on Volvo's new 12L unit injector diesel engine. Gustavsson, T., et al, [1994,eng] 48-3112

Engineering
Construction estimate of runway on East Ongul I. Umemura, T., et al, [1993,jpn] 48-1184
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] 48-2536
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
See [also]: Avalanche engineering; Human factors engineering; Military engineering; Municipal engineering; Sanitary engineering

Engineering geology
About an assessment of factors in railway bed stability in the permafrost zone. Garagulia, L.S., et al, [1994,eng] 48-3399
Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
Basic characteristics of the engineering-geocryological conditions of the highlands of inner Tian Shan. Chaus, A.K., [1990,rus] 48-1240
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan. Talipov, M.A., et al, [1990,rus] 48-1237
Change in the concept of foundation building in the cryolithozone in connection with climate warming. Rastegaev, I.K., [1992,rus] 48-4778
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] 48-436
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] 48-461
Cryogenic deformation in soils and their engineering geology consequence. Danilov, I.D., et al, [1994,eng] 48-3400
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] 48-3404
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] 48-1492
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] 48-1493
Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] 48-1490
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] 48-1491
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] 48-3405
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] 48-486
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] 48-510
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] 48-536
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] 48-693
Hydrogeology and engineering geology of the Kirghiz SSR. Talipov, M.A., ed, [1990,rus] 48-1236
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] 48-496
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Plan for large-scale engineering-geocryological zoning of the highlands of central Tian Shan. Chaus, A.K., [1990,rus] 48-1238
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Preliminary engineering-geocryological investigations in the oil and gas bearing regions. Mel'nikov, E.S., et al, [1994,eng] 48-3401
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] 48-479
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] 48-3406
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] 48-495
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] 48-467
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Simulation of soil freeze-thaw mechanics. Zhu, L.N., et al, [1993,eng] 48-509
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] 48-516
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407

Engines
Anti-icing valve. Norris, R.M., et al, [1989,eng] 48-4363
Automobile heater using a latent heat storage device. Tsantis, A.P., et al, [1994,eng] 48-3094
Bringing agricultural tractor hydraulics to life at -30 C. Macdonald, D.J., [1994,eng] 48-3097
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Decreasing energy expenditures for warming engines before ignition. Reznik, L., et al, [1994,eng] 48-3085
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098
Development of a temperature compensated gas lift cylinder. Popjoy, M.A., et al, [1994,eng] 48-3093
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] 48-3086
Engine mounting arrangement and drive mechanism for small snowmobiles. Isobe, T., et al, [1991,eng] 48-2223
Engines in passenger cars under subzero conditions. Lemke, H., [1994,eng] 48-3106
Formulating automatic transmission fluids with improved low temperature fluidity. Watts, R.F., et al, [1991,eng] 48-3931
Icing studies in an aerospace altitude test facility. Osborn, A.R., et al, [1991,eng] 48-4736
Improving the cold start of spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3090
Increasing the reliability of a nuclear icebreaker steam-turbine plant with a closed air-water cooling system. Klimov, IU.S., et al, [1992,rus] 48-751
Lube basestock manufacturing technology and engine oil pumpability. Rossi, A., [1994,eng] 48-3100
Monitoring vibrations in a nuclear icebreaker. Lattka, A.L., et al, [1990,ger] 48-3929
Proceedings. Subzero Engineering Conditions Conference, Brainerd, MN, Feb. 21-24, 1994, [1994,eng] 48-3083
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] 48-3932
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] 48-605
Tests on world champion icebreaker successfully completed at Rauma.[1993,ger] 48-3279
Use of vehicle drive cycles to assess spark plug fouling performance. Shayler, P.J., et al, [1994,eng] 48-3102
See [also]: Diesel engines; Jet engines

Enthalpy
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone. Zviagin, V.V., et al, [1993,eng] 48-2611
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] 48-2573
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects. Okinshevich, V.V., [1990,rus] 48-306
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337

Entrainment
See [also]: Air entrainment

Environment simulation
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] 48-3565
Laboratory and numerical studies of ice release. Sarraf, S., et al, [1994,eng] 48-5540
Laboratory simulations of polar stratospheric clouds. Marti, J.J., [1994,eng] 48-3552
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Snowdrifting simulation around a Davis Station workshop. Smedley, D.J., et al, [1993,eng] 48-2911

Environmental impact
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Abstracts. International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993, [1993,eng] 48-796
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] 48-2033
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] 48-4133
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] 48-1526
Antarctic stratigraphic drilling, Cape Roberts project. Workshop report. Barrett, P.J., ed, et al, [1992,eng] 48-2319
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726

Applications of Geographic Information Systems to the analysis of arctic contaminants. Palmer, H.D., et al, [1993,eng] 48-4558
Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898
Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123
Arctic marine ecosystems. Alexander, V., [1992,eng] 48-1261
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Assessment of air pollution from the Noril'sk Mining and Metallurgy Plant. Belov, P.N., [1993,rus] 48-5288
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] 48-3033
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] 48-2461
Atomic "glow" of the North. Ramzaev, P.V., [1992,rus] 48-1270
Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] 48-3510
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Changing circumpolar north: opportunities for academic development. Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992, [1994,eng] 48-4403
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] 48-4975
Climate change—its possible impact on the environment and the people of northern regions. Roots, F., [1992,eng] 48-2037
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] 48-787
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] 48-1736
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Domestic sludge, a resource for Alaska. Johnson, R.A., [1980,eng] 48-4144
Dynamics of frozen terrain in Central Yakutia after technogenic exposure. Fedorov, A.N., et al, [1992,rus] 48-4797
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] 48-2918
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
Ecological-economic aspects of using natural resources in the European northeast of the USSR. Bratsev, A.P., ed, [1990,rus] 48-5401
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers. Kalabin, G.V., ed, et al, [1992,rus] 48-2117
Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] 48-2540
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] 48-2477
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Efficiency of equipment to reduce the harmful effects of oil spills at sea—an overview. Løset, S., [1993,eng] 48-160
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Environmental impact assessment, Cape Roberts Project. Keys, J.R., [1992,eng] 48-2323
Environmental impact of a subsea natural gas pipeline failure. Hyttinen, H., et al, [1994,eng] 48-3986
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity in the Arctic and Antarctic; proceedings. International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993, [1993,eng] 48-4510
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
Evaluation of environmental radiational consequences after hypothetical accident on Kola nuclear power plant. Baklanov, A.A., [1993,eng] 48-4565
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] 48-5388
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Fifteen years of arctic shipping—the lessons learned. Luce, M.P., et al, [1994,eng] 48-4309
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] 48-498
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Global change policy for Alaska. Cole, H., [1992,eng] 48-2042
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] 48-2036
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] 48-5367
Impact of Chernobyl accident on the Kola Peninsula radiation conditions. Semenov, A., [1993,eng] 48-4560
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] 48-2030
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994, [1994,eng] 48-4404
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] 48-3245
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991). Tubertini, O., et al, [1993,eng] 48-4534
Key Lake spill. Final report.[1984,eng] 48-3677
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Method of ecological normalization of technogenic stresses. Davydova, N.D., et al, [1990,rus] 48-2074
Migration of plutonium in arctic terrestrial ecosystems. Jaakkola, T., et al, [1993,eng] 48-4562
Mining impact on permafrost hydrology. Klimovskiĭ, I.V., et al, [1993,eng] 48-522
Nevada—Novaya Zemlya. Matushchenko, A.M., et al, [1992,rus] 48-1268
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549
North Slope Borough's experiences with incineration. Thomas, J.E., et al, [1989,eng] 48-4136
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795
Oil spill simulations as a contingency planning tool offshore West Greenland. Christensen, F.T., et al, [1993,eng] 48-158
Oil spreading in surface waters with an ice cover. Yapa, P.D., et al, [1993,eng] 48-317
On computer simulation of atmospheric transport of radioactive tracers to the arctic ecosystem. Pudykiewicz, J.A., [1993,eng] 48-4559
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Post-technogenic variations in the cryolithozone in the southern lower Anadyr' basin. Kotov, A.N., et al, [1992,rus] 48-4799
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] 48-3491
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Problem of conservation of the water basin in the Krasnoyarsk region. Nepomniashchaia, N.V., [1993,rus] 48-1524
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] 48-495
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Radioecology of the northern and northwestern part of Russia. Aleksakhin, R.M., et al, [1993,eng] 48-4563
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Role of snow cover in the pollution of landscapes in the Murmansk region. Ratkin, N.E., et al, [1992,rus] 48-2119
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] 48-527
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Site of Special Scientific Interest, Antarctica. Kanda, H., [1992,jpn] 48-2446
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-1126
Snow removal options based on inhabitant preferences. Miyakoshi, K., et al, [1993,eng] 48-2849
Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] 48-421
Special problems in the polar region and the monitoring and assessment to be done by AMAP. Reiersen, L.-O., [1993,eng] 48-4511
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
System of radioecological monitoring for sunken nuclear submarine. Lisovskiĭ, I.V., [1993,eng] 48-4515
Terrain and geochemical aspects of the interaction between natural and anthropogenic factors. Khrustaleva, M.A., [1990,rus] 48-2072
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms. Hartwell, S.I., et al, [1993,eng] 48-1846
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269
Trans-Alaska Pipeline Research Program. Progress report 77-A. Crory, F.E., [1976,eng] 48-3427
Trans-Alaska Pipeline Research Program. Progress report 77-B. Austin, M.A., [1977,eng] 48-3428
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
Visual assessment of environmental effect of fieldwork on ice free areas. Campbell, I.B., et al, [1993,eng] 48-899
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska. Racine, C.H., et al, [1993,eng] 48-3792
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution. Makarova, T.D., [1992,rus] 48-2118

Environmental protection

Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893

Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993

Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] 48-3598

Arctic and Marine Oilspill Program—AMOP. Meikle, K.M., [1989,eng] 48-4138

Arctic Monitoring and Assessment Program (AMAP). Lange, M.A., [1993,eng] 48-3323

Arctic perspectives.[1992,eng] 48-1810

Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-2122

Canada Water Act Annual Report—1988-90. Environment Canada. [1989,eng] 48-3035

Changing circumpolar north: opportunities for academic development. Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992, [1994,eng] 48-4403

Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] 48-787

Cooperation in Antarctica. Sarukhanian, E.I., [1992,eng] 48-730

Countermeasures for studded tires in Miyagi Prefecture. Sugiyama, A., [1986,jpn] 48-261

Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876

Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] 48-2540

Efficiency of equipment to reduce the harmful effects of oil spills at sea—an overview. Løset, S., [1993,eng] 48-160

Ensuring and ecological safety of the gas pipelines operating in the permafrost zone. Antonov-Druzhinin, V.P., [1993,eng] 48-5192

Environmental protection in the design of land irrigation and water supply (Yakutia). Fedorov, P.F., [1992,rus] 48-4792

Forest tundras of Kamchatka: problems of protection and use. Khomentovskii, P.A., et al, [1989,rus] 48-901

Forging new partnerships in the north: the Northern Forum and the Barents Euro- Arctic Council. Lange, M.A., [1993,eng] 48-3321

Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828

Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478

Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801

Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] 48-4172

NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097

Oil and hazardous substance contingency plan for Alaska. Lautenberger, C., et al, [1993,eng] 48-3717

Oil spill response preparedness. Murrell, T., [1993,eng] 48-790

Oil spill simulations as a contingency planning tool offshore West Greenland. Christensen, F.T., et al, [1993,eng] 48-158

Plant resources of Siberia: their contemporary state and protection. Koropachinskii, I.IU., et al, [1994,eng] 48-2479

Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska. Mironova, N.A., [1988,rus] 48-916

Problems in the use of natural resources in the taiga zone. Mikhailov, IU.P., ed, et al, Expanded session of the Scientific Council of the Siberian Branch of the Academy of Sciences of the USSR on the combined development of taiga territories, 16th, Irkutsk, 24-25 Nov. 1987, [1989,rus] 48-900

Railway construction and environmental protection in permafrost. Zheng, Q.P., [1993,eng] 48-5263

Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142

Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] 48-789

Report on Alaska's oil-spill response 1991-92. Marilyn Heiman and Associates, [1993,eng] 48-4046

Results from oil-spill response research 1991-1992. Tennyson, E.J., [1993,eng] 48-793

Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893

Russia's far north opened up for West. MacKenzie, D., [1993,eng] 48-2803

Siberian permafrost mapping. Meltzer, L.I., [1993,eng] 48-527

Special problems in the polar region and the monitoring and assessment to be done by AMAP. Reiersen, L.-O., [1993,eng] 48-4511

Technological, environmental and legal issues in northern development. Lange, M.A., [1994,eng] 48-3995

Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606

Territorial plan for environmental protection in gas producing regions in Western Siberia. Bud'kova, M.A., [1989,rus] 48-903

Trends abroad in snow and roads—the problem of studded tires. Kubo, H., [1987,jpn] 48-273

Environmental tests

1994 IASC meeting report. International Arctic Science Committee, [1994,eng] 48-4644

Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] 48-4025

Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] 48-3695

Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] 48-3694

Aircraft ground deicing and anti-icing fluids. Louchez, P.R., et al, [1994,eng] 48-3111

Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] 48-5382

Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] 48-4284

Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618

Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] 48-2461

Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] 48-5145

Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007

Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278

CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476

Cold environment tests of oil skimmer. Wessels, E., [1993,eng] 48-162

Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] 48-3825

Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630

Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129

Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453

Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991. Sapozhnikov, V.V., [1992,eng] 48-2606

Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] 48-3755

Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117

Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] 48-3715

Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622

Experiments of snow drift around the snow fences with model snow. Shirono, K., [1993,jpn] 48-1971

Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128

Flow in ice covered channels. Schmidt, N.P., [1992,eng] 48-2654

Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] 48-2049

Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047

Hi-E model ice—improving the elastic modulus of columnar model ice. Spencer, D., et al, [1994,eng] 48-5580

High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695

IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. Baxter, M.S., et al, [1993,eng] 48-4519

IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. Sjoeblom, K.L., et al, [1993,eng] 48-4518

Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341

Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627

Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-4316

Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842

Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308

Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288

Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] 48-5146

Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-4360

Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] 48-3700

Laboratory tests of ship structures under ice loading. Vols. 2 and 3. Tuhkuri, J., [1993,eng] 48-1963

Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232

Method of ecological normalization of technogenic stresses. Davydova, N.D., et al, [1990,rus] 48-2074

Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] 48-4158

Model ice developed at the HSVA ice tank. Evers, K.U., et al, [1993,eng] 48-173

Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116

Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-3688

Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334

Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953

New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277

Open-water resistance and seakeeping characteristics of ships with icebreaking bows. Moton, C.J., [1991,eng] 48-4727

Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] 48-5067

Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] 48-5609

Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] 48-5608

Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286

Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] 48-2645

Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811

Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] 48-175

Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656

Simulation of the effect of wind on clothing by measurements and calculations. Anttonen, H., et al, [1993,eng] 48-4902

Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155

Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938

Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954

Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420

Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] 48-2963

Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336

Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174

Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105

Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009

Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159

Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222

Visual assessment of environmental effect of fieldwork on ice free areas. Campbell, I.B., et al, [1993,eng] 48-899

Wind tunnel test for snowbreak forests along a highway. Yoshizawa, M., et al, [1993,jpn] 48-1972

Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690

Environments

See [also]: Alpine landscapes; Arctic landscapes; Deserts; Forest land; Landscape types; Littoral zone; Ocean environments; Planetary environments; Steppes; Subarctic landscapes; Taiga; Tundra

Eolian soils

Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929

Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788

Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827

Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805

Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363

Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway. Zhao, X.F., [1992,chi] 48-1488

Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691

Equipment

Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] 48-651

Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285

Investigation of forces incurred during snow plowing. Steiger, W., et al, [1993,eng] 48-1170

Maintaining a sluice during winter. Nevskii, V., et al, [1992,rus] 48-3795

Negatively buoyant jet/plume with applications to snow plow exit flow behavior. Lindberg, W.R., et al, [1993,eng] 48-1173

Operability: the first step to mobility. Diemand, D., [1993,eng] 48-1166

Permafrost surveys in western Siberia. Burn, R.A., et al, [1993,eng] 48-361

Removable snowthrower chute. Baumann, J.R., et al, [1992,eng] 48-2239

Snow melting apparatus. Brady, B.D., [1993,eng] 48-1655

Snow-plow. Grübler, W., et al, [1992,eng] 48-1367

Solar energy potentialities and prospects in Antarctica. Sheinstein, A.S., et al, [1993,rus] 48-3568

Ultra-track: the ultimate all-terrain attachable tracks. Jacobson, R., [1993,eng] 48-1179

See [also]: Airborne equipment; Construction equipment; Electric equipment; Electronic equipment; Infrared equipment; Machinery; Military equipment; Photographic equipment; Portable equipment; Rescue equipment; Telemetering equipment;

Test equipment
Erosion
Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] **48-3510**
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] **48-3491**
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] **48-2088**
See [also]: Avalanche erosion; Bank protection (waterways); Glacial erosion; Ice erosion; Shore erosion; Snow erosion; Soil erosion; Water erosion; Wind erosion
Errors
See [also]; Accuracy
Estuaries
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] **48-3033**
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay. Messier, D., et al, [1989,fre] **48-3432**
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] **48-2006**
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] **48-932**
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Ornstedt, A., et al, [1994,eng] **48-4413**
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] **48-1049**
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] **48-2333**
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] **48-3491**
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] **48-1766**
Specific nature of delta development in river estuaries in the arctic zone of Siberia. Korotaev, V.N., [1992,rus] **48-4785**
See [also]: Deltas
Evaporation
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] **48-5472**
Condensed gases under winter conditions: a study for the rescue services. Winter, S., et al, [1992,swe] **48-4719**
Deaerator use in soil tests. Deng, Y.S., et al, [1993,chi] **48-1458**
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] **48-1152**
Evaluation of evaporation models for alpine tundra, British Columbia, Canada. Saunders, I.R., et al, [1990,eng] **48-1571**
Evaporation from alpine tundra in the Canadian Cordillera. Bailey, W.G., et al, [1990,eng] **48-1570**
Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] **48-3715**
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] **48-647**
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] **48-3199**
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements. Cherkasov, P.A., et al, [1992,rus] **48-4459**
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] **48-4174**
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] **48-4615**
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] **48-3541**
See [also]: Evapotranspiration; Ice sublimation; Snow evaporation; Sublimation; Transpiration
Evapotranspiration
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] **48-5007**
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] **48-1380**
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] **48-2376**
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] **48-2547**
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] **48-4650**
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] **48-2034**
Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] **48-4374**
Excavation
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] **48-525**
Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] **48-651**
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] **48-5242**
Notched Charpy bar impact test on frozen soil. Yu, Q.H., et al, [1993,eng] **48-5258**
On the mechanics of frozen soil cutting. Yu, Q., et al, [1993,eng] **48-759**
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] **48-521**
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] **48-516**
See [also]: Rock excavation; Trenching; Tunneling (excavation)
Expansion
See [also]: Thermal expansion
Expeditions
34th Japanese Antarctic Research Expedition in 1992-1994. Sato, N., [1993,jpn] **48-2434**
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] **48-739**
AARI Arctic expeditions in 1990. Ippolitov, V.S., et al, [1992,eng] **48-735**
Arctic exploration and development, c. 500 B.C. to 1915: an encyclopedia. Holland, C., [1994,eng] **48-3337**
Arctic yesterday and today. Kiselev, IU.G., et al, [1992,rus] **48-2741**
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] **48-3297**
Death in the Arctic. Ranford, B., [1993,eng] **48-1647**
Escape from the Arctic. Alekseev-Gai, A., [1993,rus] **48-5399**
Experience of inland travel of JARE-33. Yamauchi, H., [1993,jpn] **48-2440**
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] **48-73**
Final report of Operation Deep Freeze '91 (1990-91). U.S. Naval Support Force Antarctica, [1991,eng] **48-1531**
First international expedition "World Scientists with Regard to Extreme North". Babaev, IU.M., [1992,eng] **48-727**
First Soviet-American oceanographic expedition in the Chukchi Sea (CHOEX/ICE-90). Sen'ko, N.P., [1992,eng] **48-737**
High latitudes: a history of Swedish polar travels and research. Liljequist, G.H., [1993,eng] **48-1811**
History of research on Novaya Zemlya. Nikandrov, O.M., et al, [1993,rus] **48-1906**
Inland traverse of JARE-33 in 1992. Kamiyama, K., [1993,jpn] **48-2439**
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] **48-717**
Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] **48-1857**
Nepal-Japan cooperation in research on glaciers and climates of the Nepal Himalaya. Higuchi, K., [1993,eng] **48-2769**
Oden-91 International Arctic Ocean Expedition. Travel report. Salmela, O., [1992,eng] **48-4894**
Operation Deep Freeze 92/93 end of season report. U.S. Naval Support Force Antarctica, [1993,eng] **48-1663**
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] **48-1861**
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] **48-3926**
Report of summer team of the 33rd JARE, 1991-92. Sano, M., [1992,jpn] **48-2444**
Report of wintering team of JARE-33 in 1991-1993. Fukuchi, M., [1993,jpn] **48-2438**
Report of wintering team of the 32nd JARE, 1990-92. Fujii, Y., [1992,jpn] **48-2445**
Russian discoveries and investigations in the Arctic: first half of the 19th century. Pasetskiĭ, V.M., [1984,rus] **48-1265**
Sea, ice and rock: sailing and climbing above the Arctic Circle. Bonington, C., et al, [1993,eng] **48-1931**
Soviet-Norwegian expedition in the Barents Sea. Abramov, V.A., [1992,eng] **48-736**
Summer activities of JARE-34 in 1992-1993. Naruse, R., [1993,jpn] **48-2441**
Water masses and circulation in the Eurasian Basin. Anderson, L.G., et al, [1994,eng] **48-4222**
See [also]: Traverses
Expenses
See [also]: Cost analysis
Experimentation
Canadian Habbakuk Project; a project of the National Research Council of Canada. Gold, L.W., [1990,eng] **48-311**
Condensed phase dynamics of OClO. Dunn, R.C., [1993,eng] **48-1025**
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] **48-2370**
Experimental method for vehicle mobility research on freezing/thawing soil. Shoop, S.A., et al, [1993,eng] **48-1163**
Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] **48-2369**
Melting with salt and heating with ice. Bohren, C., [1994,eng] **48-3239**
Microbial response to experimental sea ice formation. Grossmann, S., et al, [1993,eng] **48-2412**
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] **48-2620**
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] **48-1560**
Structural transitions in amorphous water ice and astrophysical implications. Jenniskens, P., et al, [1994,eng] **48-5108**
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] **48-337**
Exploration
1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] **48-3330**
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] **48-3257**
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] **48-1139**
Alaska's mineral industry 1993: a summary. Bundtzen, T.K., et al, [1994,eng] **48-3114**
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] **48-1019**
Canada sizes up oil, gas strikes in Yukon, N.W.T.[1994,eng] **48-2157**
Carbon monoxide hazard in sub-antarctic exploration. Gill, R.M.F., [1994,eng] **48-5122**
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] **48-179**
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] **48-2643**
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] **48-787**
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] **48-2918**
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] **48-2447**
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] **48-73**
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] **48-2456**
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] **48-1263**
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] **48-3329**
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] **48-2457**
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] **48-3231**
Landsat linear features and mineral occurrences in Alaska. Metz, P.A., [1983,eng] **48-800**
Methods to map ice conditions, to measure ice properties and to quantify ice features. Nortala-Hoikkanen, A., et al, [1993,eng] **48-177**
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] **48-2098**
Oil spill response preparedness. Murrell, T., [1993,eng] **48-790**
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] **48-4045**
Petroleum potential of the Beaufort and Chukchi Seas. Cooke, L.W., [1993,eng] **48-788**
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] **48-1018**
Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] **48-789**
Russian arctic shelf hydrocarbon development to proceed. George, D., [1993,eng] **48-1017**
Russian discoveries and investigations in the Arctic: first half of the 19th century. Pasetskiĭ, V.M., [1984,rus] **48-1265**
Russia's far north opened up for West. MacKenzie, D., [1993,eng] **48-2803**
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] **48-1274**
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] **48-155**
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] **48-292**
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] **48-3298**
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] **48-72**
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] **48-4121**
Explosion effects
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] **48-1526**
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] **48-2866**
Avalanche control technology: a growing industry in France. Penniman, D., [1990,eng] **48-2361**
Distribution of white phosphorus residues from the detonation of 81-mm mortar WP smoke rounds at an upland site. Walsh, M.E., et al, [1993,eng] **48-1002**
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion. Borisov, V.E., et al, [1990,rus] **48-59**
Military artillery for avalanche control. Abromeit, D., [1993,eng] **48-2647**
Saturated soil compaction by blasts under winter conditions. Minaev, O.P., et al, [1994,eng] **48-4486**
See [also]: Blasting; Nuclear explosions
Explosives
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] **48-1526**
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] **48-3033**
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] **48-3825**
Evaluation of pre-extraction analytical holding times for nitroaromatic and nitramine explosives in water. Grant, C.L., et al, [1993,eng] **48-999**
Evaluation of pre-extraction analytical holding times for tetryl in soil. Jenkins, T.F., [1994,eng] **48-5410**
Evaluation of the use of supercritical fluids for the extraction of explosives and their degradation products from soil. Thorne, P.G., [1994,eng] **48-5310**
Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil. Grant, C.L., et al, [1993,eng] **48-721**

Experiments with explosive-contaminated soil. Jenkins, T.F., et al. [1993,eng] 48-723
Explosives for avalanche control. Heywood, L., [1993,eng] 48-2648
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] 48-3558
Military artillery for avalanche control. Abromeit, D., [1993,eng] 48-2647
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] 48-5415
System for artificially triggering snow avalanches from helicopter. Wendl, F., [1993,eng] 48-4435
Temperature compensation techniques and technologies—an overview. Kruczynski, D.L., et al, [1991,eng] 48-3672
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222

Exposure
See [also]: Orientation; Slope orientation

Extraterrestrial ice
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-3679
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] 48-992
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Destruction of cometary ice. Kaĭmakov, E.A., et al, [1988,rus] 48-308
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] 48-341
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] 48-2380
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] 48-3618
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] 48-3543
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] 48-1106
Methanol ice in the protostar GL 2136. Skinner, C.J., et al, [1992,eng] 48-3617
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] 48-988
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] 48-1213
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-4759
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] 48-752
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Reports of planetary geology and geophysics program, 1990.[1991,eng] 48-3696
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] 48-1508
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] 48-1750
Spectroscopic detection of molecular hydrogen frozen in interstellar ices. Sandford, S.A., et al, [1993,eng] 48-769
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
Unusual radar echoes from the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-538
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Extraterrestrial material
See [also]: Cosmic dust

Extremes
See [also]: Records (extremes)

Extremes (records)
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318

Falkland Islands
Movement and decay of the tabular iceberg A-24. Hawkins, J.D., et al, [1993,eng] 48-328

Falling snow
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] 48-4819
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] 48-2004
Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] 48-2958
Aggregation of snow crystals in the early growth stage. Takahashi, T., et al, [1992,jpn] 48-3202
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] 48-2145
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] 48-2843
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] 48-2989
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] 48-4645
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165

Fallout
Atomic "glow" of the North. Ramzaev, P.V., [1992,rus] 48-1270
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity in the Arctic and Antarctic; proceedings. International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993, [1993,eng] 48-4510
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] 48-2799
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991). Tubertini, O., et al, [1993,eng] 48-4534
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
Nevada—Novaya Zemlya. Matushchenko, A.M., et al, [1992,rus] 48-1268
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskii, S.M., et al, [1993,eng] 48-4532
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] 48-4546
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] 48-4557
Sellafield as a source of radioactivity to the Barents Sea. Kershaw, P.J., et al, [1993,eng] 48-4531
Survey of artificial radionuclides in the Kara Sea. Strand, P., et al, [1993,eng] 48-4514

Farming
See [also]: Agriculture

Fast ice
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay. Messier, D., et al, [1989,fre] 48-3432
Errata. Global warming: a polar approach. Wadhams, P., [1992,eng] 48-1535
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] 48-932
Ice thickness variability of the McMurdo Sound landfast ice runway. Morris, K., et al, [1992,eng] 48-3768
In situ investigations of the shore-ice-grounded hummock interaction. Sukhorukov, K.K., et al, [1994,eng] 48-5582
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] 48-3819
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] 48-1047
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] 48-5379
Thraustochytrid protists in antarctic fast ice?. Riemann, F., et al, [1993,eng] 48-47
Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] 48-1081

Fatigue (materials)
Deformation of a pressure vessel during failure caused by a technological defect. Ammosov, A.P., et al, [1990,rus] 48-55
Failure mechanics criteria for field testing large-sized structures. Guliaev, V.P., [1990,rus] 48-50
Flexural fatigue and fracture of unidirectional graphite/epoxy composites at low temperatures. Dutta, P.K., [1993,eng] 48-2062

Fauna
See [also]: Animals

Faunal remains
See [also]: Fossils

Feeding (hydrology)
See [also]: Alimentation

Fences
See [also]: Snow fences

Films
Aircraft window defroster. Mukherjee, A., [1990,eng] 48-1874
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
See [also]: Water films

Filters
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] 48-520

Filtration
See [also]: Seepage

Fines
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978

Finland
Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066
Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] 48-4998
Climatic adaptation of Scots pine in Finland. Lu majoki, A., [1993,eng] 48-4060
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] 48-811
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Effect of lowered water table on nitrous oxide fluxes from northern peatlands. Martikainen, P.J., et al, [1993,eng] 48-1121
Fast preparation and more accurate utilization of the peat production area. Leiviskä, V., [1991,fin] 48-3678
Field tests of liquid salt and pre-wetted salt. Raukola, T., et al, [1993,fin] 48-3067
Finland breaks the ice. Brigham, L.W., [1987,eng] 48-2338
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] 48-1793
Finnish firms in arctic shipping joint venture.[1993,eng] 48-3228
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681

Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Goals and methods of winter maintenance in Finland. Katko, K., [1993,eng] 48-1188
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
Icebreaker M/S Fennica—Finnish shipbuilding know-how at its best. Lindqvist, R., [1993,eng] 48-2339
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Latitudinal differentiation of vegetation along the Russo-Finnish border. IUrkovskaia, T.K., et al, [1993,rus] 48-5287
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480
Multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-4345
Multipurpose icebreaker for the Finnish National Board of Navigation. Lohi, P., et al, [1993,eng] 48-4344
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] 48-2642
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] 48-4948
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Road conditions in Finland. Aoyama, K., [1989,jpn] 48-714
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] 48-4966
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Simplified ventilation system Thermonet. Hyvärinen, K., [1994,eng] 48-3872
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Tariff policy in district heating. Jauhiainen, I., [1994,eng] 48-3856
Tests on world champion icebreaker successfully completed at Rauma.[1993,ger] 48-3279
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] 48-1198
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938

—Hailuoto

Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279

—Lapland

Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] 48-4965

—Sodankylä

Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] 48-5487
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] 48-5442

Fires

Fire protection strategies for the Northwest Territories. Marianayagam, C., et al, [1994,eng] 48-3365
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] 48-4172
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824
See [also]: Forest fires

Firn

Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] 48-2854
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
Firn chemistry at Vostok Station. Bender, M.L., et al, [1994,eng] 48-4218
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] 48-2388
Gravitational separation in polar firn [and response]. Craig, H., et al, [1993,eng] 48-1902
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] 48-1818
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] 48-9
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] 48-2852

Firn stratification

Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] 48-2711
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] 48-1855

Fissure patterns

See [also]: Patterned ground

Flexural strength

Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] 48-459
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Flexural fatigue and fracture of unidirectional graphite/epoxy composites at low temperatures. Dutta, P.K., [1993,eng] 48-2062
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Prestressed ice as indigenous polar construction material. Nese, P.I., et al, [1991,eng] 48-4040
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] 48-3015
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730

Floating ice

Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-4360
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
See [also]: Ice floes

Floating structures

Arctic survival equipment testing and analysis. Dick, R.A., et al, [1992 eng] 48-5105
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
Protective system against icebergs or floating objects. Mogridge, G.R., et al, [1993,eng] 48-1516
Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] 48-789
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] 48-1603
Snowmobile. Smith, M.L., [1990,eng] 48-2179
Study on ice forces acting on floating structures. Taguchi, Y., et al, [1990,jpn] 48-4677

Flood control

Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] 48-2798

Flood forecasting

Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] 48-4405
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal. Meon, G., et al, [1993,eng] 48-2797
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Frigid zone ice dike prediction system. Wang, X.R., et al, [1994,eng] 48-5604
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] 48-2796
Hydrologic modelling of flooding and runoff. Feldman, A.D., et al, [1993,eng] 48-680
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] 48-5537
Ice jam breakup flood discharge on the Yellow River. Yang, L.F., et al, [1994,eng] 48-5542
Index system for delineating landslide regions. Wang, C.H., et al, [1992,eng] 48-4409
Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al, [1990,eng] 48-1580
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613
Mudflood activity in the foothills of Central Asia. Salikhova, D.Kh., et al, [1992,eng] 48-4408
National Weather Service's transition to hydrologic modeling on scientific work stations. Farnsworth, R.K., et al, [1993,eng] 48-681
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] 48-2798
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] 48-1581
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410

Flooding

Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012

Floodplains

Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] 48-2541
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Radioactive contamination of topsoil in the lower reaches of Techa River in the Urals. Pozolotina, V., et al, [1993,eng] 48-4527
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] 48-2284
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287

Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471

Floods
Formation of floods caused by outbursts from snow dams. Keremkulov, V.A., [1992,rus] 48-4453
Method of calculating annual runoff in terms of the seasonal total. Lobanov, V.A., et al, [1992,rus] 48-185
Modeling surface flow hydrography of a spring flood in small rivers. Vodogretskiĭ, V.E., et al, [1992,rus] 48-184
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] 48-3359

Floors
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Usable space in houses with and without raised floors. Numano, N., [1993,jpn] 48-1984

Flora
See [also]: Plants (botany); Vegetation

Flow
See [also]: Air flow; Fluid flow; Glacier flow; Laminar flow; Pipe flow; Plastic flow; Rheology; River flow; Shear flow; Stream flow; Turbulent flow; Unsteady flow; Viscous flow; Water flow

Flow control
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] 48-4959
Computer modeling of alpine stream diversions. Brady, T.M., et al, [1993,eng] 48-689
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] 48-5607
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2828
Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] 48-1452
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] 48-5606
Machines for feeder control in hydraulic transport of snow. Murayama, K., et al, [1992,jpn] 48-3159
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] 48-1549
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] 48-5609
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] 48-5608
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961
Pulsed flow control device for snow removal drains. Kato, K., et al, [1992,jpn] 48-3160
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] 48-1545
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] 48-1878

Flow measurement
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] 48-1615
Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] 48-2768
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] 48-2621
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] 48-5591
New views for antarctic glaciology. Bindschadler, R.A., [1993,eng] 48-772
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] 48-2620
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Thinning rate of ice sheet on Mizuho Plateau. Toh, H., et al, [1992,eng] 48-919

Flow rate
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] 48-400
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
Flow rate of rivers on the northern slope of Ketmen' Ridge during the vegetation period in the flood. Piven', E.N., [1992,rus] 48-4468
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Mass movement in the Great Wall Station area, Antarctica. Zhu, C., et al, [1992,eng] 48-78
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions. Huybrechts, P., [1993,eng] 48-2140
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] 48-2619
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] 48-4247
See [also]: Water transport

Fluid dynamics
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] 48-5027
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] 48-3944
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] 48-2835
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] 48-2146
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Melting windshield ice.[1994,eng] 48-3616
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Chiurova, I.E., et al, [1994,eng] 48-2469
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] 48-2806
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] 48-4594

Fluid flow
Aircraft deicer system. Manda, L.J., et al, [1993,eng] 48-1940
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] 48-4959
Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] 48-294
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] 48-4957
See [also]: Air flow; Glacier flow; Laminar flow; Pipe flow; Plastic flow; Rheology; River flow; Shear flow; Stream flow; Turbulent flow; Unsteady flow; Viscous flow; Water flow

Fluid infiltration
See [also]: Seepage

Fluids
See [also]: Liquids

Flumes
See [also]: Channels (waterways)

Foam plastics
See [also]: Cellular plastics

Fog
See [also]: Supercooled fog

Fog dispersal
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065

Foliage
See [also]: Forest canopy

Footings
See [also]: Foundations; Pavement bases; Permafrost bases

Forecasting
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] 48-399
Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] 48-1946
Case study in forecasting the stratospheric vortex during EASOE. Carver, G.D., et al, [1994,eng] 48-5500
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] 48-3839
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Estimating the weight of a snow cover using only meteorological factors. Shinojima, K., et al, [1993,eng] 48-2850
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] 48-512
Forecasting thermokarst with a computer. Fel'dman, G.M., et al, [1992,rus] 48-4796
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] 48-394
Hydrograph forecasts for a mountain river in a stochastic form. Mukhin, V.M., [1992,rus] 48-1948
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] 48-200
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone. Vakhnenko, S.V., et al, [1992,rus] 48-186
Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskiĭ, V.D., et al, [1994,eng] 48-2805
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] 48-1803
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Snowstorm effects on Birmingham ambulances services, UK. Speakman, D., [1994,eng] 48-3498
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] 48-1878
Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] 48-5501
See [also]: Avalanche forecasting; Flood forecasting; Frost forecasting; Ice forecasting; Long range forecasting; Permafrost forecasting; Runoff forecasting; Weather forecasting

Forest canopy
Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] 48-4998
Effect of land-cover type and season in microwave remote sensing of snow. Jääskeläinen, V., et al, [1993,eng] 48-1707
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] 48-2827
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647

Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Refinements in the remote sensing of snow-covered area. Holyd, E.W., III, et al, [1990,eng] 48-2426
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660
Snow depth in forests with various openness grades of canopies. Goto, Y., et al, [1993,jpn] 48-3180
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921

Forest ecosystems
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] 48-4975
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] 48-5388
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] 48-2036
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] 48-2422
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] 48-2124
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Problem of rational use and protection of forest resources in the West Siberian North. Bud'kov, S.T., [1989,rus] 48-904
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] 48-4374

Forest fires
Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Estimating localized SWE on the Yellowstone northern range. Farnes, P.E., et al, [1993,eng] 48-2928
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] 48-498
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] 48-5125
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730
Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] 48-421
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627

Forest land
Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] 48-3426
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] 48-2827
Forest tundras of Kamchatka: problems of protection and use. Khomentovskiĭ, P.A., et al, [1989,rus] 48-901
Groundwater temperatures during the winter in a forested basin. Calkins, D.J., [1993,eng] 48-2923
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] 48-81
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Problem of rational use and protection of forest resources in the West Siberian North. Bud'kov, S.T., [1989,rus] 48-904
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] 48-3429
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Snow depth in forests with various openness grades of canopies. Goto, Y., et al, [1993,jpn] 48-3180
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210

Forest lines
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] 48-3426
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] 48-4971
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] 48-5125
Geographic boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,chi] 48-4488
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] 48-5226
Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] 48-2572
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] 48-3429
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508

Forest soils
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Factoral-genetic systematization of Middle Siberia subarctic soils. Ershov, IU.I., [1993,eng] 48-2279
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Forest-growing potential of soils in the mountain boreal forests of southern Siberia. Ermolenko, L.G., et al, [1991,rus] 48-4145
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Role of water in the formation of the characteristics of forest soils in northern Tian Shan. Usupaev, Sh.E., [1990,rus] 48-1239
Room temperature isolations of low temperature microfungi. Carreiro, M.M., et al, [1992,eng] 48-3409
Soil cover of the southern taiga in Central Siberia. Gorbachev, V.N., et al, [1992,rus] 48-4149
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] 48-4374

Forest strips
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] 48-4060
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] 48-1736
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] 48-2422
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Wind tunnel test for snowbreak forests along a highway. Yoshizawa, M., et al, [1993,jpn] 48-1972
See [also]: Protective vegetation

Forest trees
See [also]: Trees (plants)
Forest tundra
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] **48-4822**
Forest tundras of Kamchatka: problems of protection and use. Khomentovskiĭ, P.A., et al, [1989,rus] **48-901**
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] **48-5125**
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] **48-4377**
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] **48-5065**
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] **48-425**
Phytocoenotic structure of *Larix* open woods in the extreme northern forest stand "Ary-Mas". Norin, B.N., [1993,rus] **48-5286**
Post fire tree establishmem at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] **48-2764**
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] **48-2724**
Satellite detection of the boreal forest-tundra transition. Awaya, Y., et al, [1993,eng] **48-1697**
Strategy of developing regions in the European northeast of the USSR. Bratsev, A.P., et al, [1990,rus] **48-5402**
Forestry
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] **48-82**
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] **48-1651**
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] **48-4060**
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] **48-637**
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] **48-649**
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] **48-2681**
Forest resources of Siberia. Sokolov, V.A., et al, [1994,eng] **48-2481**
Forest-growing potential of soils in the mountain boreal forests of southern Siberia. Ermolenko, L.G., et al, [1991,rus] **48-4145**
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] **48-5125**
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] **48-1883**
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] **48-1260**
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology.[1994,eng] **48-2482**
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] **48-2124**
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] **48-1246**
Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] **48-4809**
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] **48-4811**
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] **48-1650**
Severe snow loads on mountain afforestation in Japan. Nitta, R., et al, [1991,eng] **48-3702**
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] **48-5144**
Snow-cover condition in Japan and damage of the sugi *(Cryptomeria japonica* D. Don). Taira, H., [1991,eng] **48-3703**
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] **48-1675**
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] **48-1746**
Fossil ice
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] **48-1009**
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] **48-508**
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] **48-4906**
Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] **48-531**
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] **48-533**
Fossils
East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] **48-3294**
Interpreting past climate from stable isotopes in continental organic matter. Edwards, T.W.D., [1993,eng] **48-1501**
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] **48-5126**
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] **48-208**
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] **48-1498**
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] **48-3709**
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] **48-5638**
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] **48-3132**
Foundations
Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] **48-1916**
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] **48-3351**
Arctic and subarctic construction foundations for structures.[1983,eng] **48-762**
Basic considerations for the structural designer of buildings located in cold regions. Berretti, M.R., [1994,eng] **48-3348**
Building construction on permafrost foundations. Goncharov, IU.M., [1993,eng] **48-519**
Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] **48-462**
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] **48-439**
Change in the concept of foundation building in the cryolithozone in connection with climate warming. Rastegaev, I.K., [1992,rus] **48-4778**
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] **48-1267**
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] **48-3347**
Design and construction of short range radar stations in the Canadian Arctic. Sanderson, K.J., [1994,eng] **48-3350**
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] **48-1103**
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] **48-883**
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] **48-3975**
Frost heave damage to buildings and water pipelines in permafrost. Jiao, T.B., [1993,chi] **48-4507**
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] **48-371**
Frost protected shallow foundations and freezing index climatography for residential construction. Crandell, J.H., et al, [1994,eng] **48-3398**
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] **48-536**
Global ice loads on arctic structures interpreted from foundation displacements. Hewitt, K.J., et al, [1994,eng] **48-3363**
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] **48-4361**
Norman Wells air terminal building. Brown, K., et al, [1994,eng] **48-3349**
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] **48-885**
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska. Haynes, F.D., et al, [1994,eng] **48-5409**
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] **48-429**
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] **48-3397**
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] **48-4493**
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] **48-5228**
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] **48-5218**
Rational methods of building foundations in the southern part of the cryolithozone. Mirenburg, IU.S., et al, [1992,rus] **48-4804**
Reducing frost mounds under foundations by lowering the water table. Liu, S.F., et al, [1993,chi] **48-4495**
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] **48-5225**
Saturated soil compaction by blasts under winter conditions. Minaev, O.P., et al, [1994,eng] **48-4486**
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] **48-4494**
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] **48-5217**
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] **48-467**
Using dry mixtures for concreting extended constructions on a frozen foundation. Shifrin, S.A., et al, [1992,rus] **48-1392**
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] **48-2214**
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] **48-1016**
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] **48-1104**
See [also]: Pavement bases; Permafrost bases; Roadbeds
Fractals
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] **48-1601**
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] **48-933**
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] **48-1326**
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] **48-2992**
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] **48-2823**
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] **48-1235**
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] **48-1157**
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] **48-1331**
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] **48-2921**
Fracture zones
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] **48-5589**
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] **48-1554**
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] **48-1556**
Fracturing
Flexural fatigue and fracture of unidirectional graphite/epoxy composites at low temperatures. Dutta, P.K., [1993,eng] **48-2062**
Fracture behavior of composites at room and cryogenic temperature. Lau, O.H., [1993,eng] **48-3539**
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] **48-2536**
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskiĭ, I.N., ed, [1991,rus] **48-1910**
Fram Strait
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] **48-4728**
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] **48-4729**
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] **48-4740**
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] **48-3317**
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] **48-3316**
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] **48-2897**
Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] **48-3450**
Probable deep winter convection in Fram Strait. Bogorodskiĭ, P.V., et al, [1992,eng] **48-1767**
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] **48-4546**
Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] **48-1323**
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] **48-541**
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] **48-4089**
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] **48-3447**
France
Avalanche control technology: a growing industry in France. Penniman, D., [1990,eng] **48-2361**
Avalanche forecasting in France. Pahaut, E., [1993,ita] **48-1131**
—Alps
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] **48-2561**
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] **48-2103**
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] **48-4094**
Glaciers of the Alps. Rott, H., et al, [1993,eng] **48-4028**
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] **48-2829**
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] **48-3139**
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] **48-5418**
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] **48-1149**
—Aquitaine
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] **48-5047**
—Maine
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] **48-2563**
—Massif des Grandes Rousses
Mass balance of Sarennes Glacier, France, 1989-90. Valla, F., [1993,fre] **48-4115**
—Mont Blanc
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] **48-2713**
—Pyrenees
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] **48-4029**
—Vallon d'Asti
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] **48-4102**
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] **48-4101**

Frazil ice
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] 48-5602
Field study of ice control structure on river rapids. Mineta, M., et al, [1994,eng] 48-5551
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] 48-1547
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice accretion on trash racks in supercooled flows. Part 1: icing. Horjen, I., [1994,eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] 48-5597
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice jam data collection. White, K.D., et al, [1994,eng] 48-5406
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase I). Tsang, G., et al, [1992,eng] 48-4010
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] 48-5152
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] 48-5549
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Reactive transport of suspended particles: mechanisms and modeling. Mercier, R.S., [1985,eng] 48-4895
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Study on frazil and anchor ice processes and development of a river ice model. Wang, D.S., [1994,eng] 48-3547
Underwater frazil ice detector. Daly, S.F., et al, [1991,eng] 48-2221

Freeze drying
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] 48-3318
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] 48-5015
Mechanical freezing of alum sludge. Martel, C.J., [1994,eng] 48-5376
Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344

Freeze thaw cycles
Best compaction dry density study of sulphate salty soil. Fei, X.L., et al, [1993,chi] 48-1449
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] 48-1256
Characteristics of cryogenic weathering of hard rocks, such as dolerites. Gurevich, V.M., [1992,rus] 48-4784
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] 48-447
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Effect of freeze-thaw events on mineralization of soil nitrogen. DeLuca, T.H., et al, [1992,eng] 48-3412
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil. Nelson, L.M., et al, [1978,eng] 48-3410
Effects of freeze-thaw stress on bacterial populations in soil microcosms. Morley, C.R., et al, [1983,eng] 48-3411
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] 48-3385
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis. Kestler, M.A., et al, [1994,eng] 48-3369
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] 48-476
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo*. Hincha, D.K., et al, [1993,eng] 48-1255
Freeze/thaw characteristics of room temperature heat pipes. Ochterbeck, J.M., [1994,eng] 48-3555
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
Frost physical weathering at the Great Wall Station. Cui, Z.J., et al, [1992,eng] 48-79
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] 48-2563
Frost weathering at the Great Wall Station. Xiong, H.G., et al, [1992,eng] 48-77
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Heave and settlement of soils in one freeze-thaw cycle. Chen, X.S., et al, [1993,eng] 48-5197
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] 48-496
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] 48-635
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] 48-1253
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] 48-1719
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1150
Operation and performance of sludge freezing bed at Fort McCoy, Wisconsin. Martel, C.J., [1994,eng] 48-3386
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Permafrost formation time. Lunardini, V.J., [1993,eng] 48-428
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Simulation of soil freeze-thaw mechanics. Zhu, L.N., et al, [1993,eng] 48-509
Stone trails on unstable slopes. Dumas, B., et al, [1993,eng] 48-1848
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782
Why is there air in concrete. Hover, K.C., [1993,eng] 48-286
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240
See [also]: Seasonal freeze thaw

Freeze thaw tests
Airfield pavement evaluation: Springfield Air National Guard Base, Ohio. Buncher, M.S., et al, [1991,eng] 48-3667
Alberta Concrete Patch Evaluation Program. Gurjar, S., et al, [1987,eng] 48-4402
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Calculation of the vapor-saturated liquidus for the NaCl-CO2-H2O system. Barton, P.B., et al, [1993,eng] 48-1769
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Effects of high-range water reducers on the properties of fresh and hardened concrete. Zakka, Z.A., et al, [1989,eng] 48-3707
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects. Lee, W.J., [1994,eng] 48-3544
Experimental method for vehicle mobility research on freezing/thawing soil. Shoop, S.A., et al, [1993,eng] 48-1163
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] 48-1601
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] 48-3391
Freeze-thaw durability of roller-compacted concrete made with Rolad binder. Delagrave, A., et al, [1994,fre] 48-5143
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] 48-5015
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Long-term shear strength of frost-thaw transition zone. Ding, J.K., et al, [1993,chi] 48-4492
Mathematical model of concrete temperature deformations during freezing-thawing. Pavlov, A.R., et al, [1994,eng] 48-3955
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] 48-2020
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628

Freezeup
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] 48-1795
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] 48-1028
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] 48-2703
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] 48-2702
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] 48-3081
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] 48-3082
Ice thickness data, winter 1991-1992.[1993,eng] 48-2162
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] 48-4401
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Method of long range forecasting of freezeup on rivers in Kazakhstan. Shmarova, I.N., [1992,rus] 48-1953
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon. Enoki, K., et al, [1993,eng] 48-154
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] 48-1794
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] 48-3724
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] 48-2642
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766

Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992. [1993,eng] 48-1787
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] 48-3359
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] 48-5600

Freezing
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] 48-133
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Deep freeze causes havoc.[1994,eng] 48-2884
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
See [also]: Artificial freezing; Concrete freezing; Ice formation; Pipeline freezing; Regelation; Sea water freezing; Seasonal freeze thaw; Soil freezing; Spray freezing; Vacuum freezing

Freezing depth
See [also]: Frost penetration

Freezing front
Changing characteristics of hydraulic diffusivity of unsaturated soil. Deng, Y.S., et al, [1992,chi] 48-1412
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave. Fowler, A.C., et al, [1993,eng] 48-5205
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Essential types of heave development for soil freezing. Xu, X.Z., et al, [1993,chi] 48-1431
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] 48-5033
Experimental studies on ice segregation and the modes of frost heaving. Chen, R.J., et al, [1993,eng] 48-5195
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Frost heave study in Japan. Ishizaki, T., [1993,eng] 48-1427
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] 48-2443
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] 48-296
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] 48-1241
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] 48-5191
Interaction of particles and ice-water interfaces during bulk freezing. Lipp, G., et al, [1992,eng] 48-3079
Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] 48-1402
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Long-term shear strength at frozen/unfrozen transition zone. Ding, J.K., et al, [1992,chi] 48-1407
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] 48-5190
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1992,chi] 48-1413
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1993,eng] 48-453
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] 48-4580
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Preliminary study on freezing point in soil. Cui, G.X., et al, [1993,chi] 48-4496
Primary study on interface conditions of ice-saturated clay. Xu, X.Z., et al, [1992,chi] 48-1409
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] 48-3214
Relationship between ice intrusion temperature and confined pressure. Chen, R.J., et al, [1993,eng] 48-5196
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] 48-3706
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] 48-3215
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-389
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] 48-887
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] 48-5211
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] 48-1404
Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] 48-1403

Freezing indexes
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] 48-3155
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Frost protected shallow foundations and freezing index climatography for residential construction. Crandell, J.H., et al, [1994,eng] 48-3398
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] 48-469
Temperature variation at eighteen Canadian weather stations. McCormick, G., [1994,eng] 48-3362

Freezing nuclei
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466

Freezing point depressants
See [also]: Antifreezes

Freezing points
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] 48-3839
Deicing compositions. Hansen, C.N., [1986,eng] 48-4273
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] 48-2573
Freezing-temperature depressions of aqueous potassium hydrogen carbonate. Apelblat, A., [1994,eng] 48-3813
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Infrared studies of sulphuric acid films. Middlebrook, A.M., et al, [1993,eng] 48-3638
Melting with salt and heating with ice. Bohren, C., [1994,eng] 48-3239
New sensor can reduce highway deicer use.[1994,eng] 48-4 '55
Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] 48-1753
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] 48-1366
Preliminary study on freezing point in soil. Cui, G.X., et al, [1993,chi] 48-4496
Preliminary study on the freezing point in soil. Cui, G.X., et al, [1993,eng] 48-5200
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] 48-1430
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
Release of an ice-active substance by antarctic sea ice diatoms. Raymond, J.A., et al, [1994,eng] 48-3043
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366
See [also]: Melting points

Freezing rate
Acceleration of oxidation-reduction reactions in freezing solution. Takenaka, N., et al, [1993,eng] 48-1866
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] 48-3624
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] 48-4441
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Influence of pore characteristic on deformation during material freezing. Wang, J.C., et al, [1993,chi] 48-1432
Mixed layer dynamics in the onset of freezing. Claes, D.C., [1990,eng] 48-3668
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] 48-3214
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] 48-3215
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147
Thermal control of freezing processes with predetermined rate of freezing. Lin, S., [1993,eng] 48-897
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697

Friction
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
Open-water resistance and seakeeping characteristics of ships with icebreaking bows. Moton, C.J., [1991,eng] 48-4727
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Tribology of frost-resistant antifriction materials. Cherskii, I.N., et al, [1994,eng] 48-3980
See [also]: Ice friction; Internal friction; Metal ice friction; Plastics ice friction; Plastics snow friction; Rubber ice friction; Rubber snow friction; Skid resistance; Wood ice friction; Wood snow friction

Fronts (meteorology)
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834
Northern and southern hemispheric polar lows—a comparative study. Rasmussen, E.A., [1993,eng] 48-2101
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] 48-313

Frost
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321

Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] 48-1895
Frost formation and heat transfer on circular cylinders in crossflow. Raju, S.P., et al, [1993,eng] 48-2155
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] 48-2468
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152

Frost action
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Computer modeling of alpine stream diversions. Brady, T.M., et al, [1993,eng] 48-689
Denudation rate by gelifraction in Tian Shan. Liu, G.N., et al, [1992,chi] 48-2013
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] 48-447
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] 48-5077
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] 48-5233
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] 48-476
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] 48-5188
Mathematical model of concrete temperature deformations during freezing-thawing. Pavlov, A.R., et al, [1994,eng] 48-3955
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Prevention of frost damage to canals. Chen, X.B., [1993,eng] 48-5189
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] 48-2116
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] 48-5260
Significance of pavement design and materials in D-cracking. Final report. Stark, D.C., [1991,eng] 48-4899
Similitude analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,chi] 48-1448
Similitude modeling of frozen soil excluding overburden. Zhu, L.N., et al, [1992,chi] 48-1419
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826

Frost deposit
See [also]: Hoarfrost

Frost forecasting
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] 48-3216
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] 48-461
Danish operational slippery-road-warning system and prospects for the future. Voldborg, H., [1993,eng] 48-1205
Essential types of heave development for soil freezing. Xu, X.Z., et al, [1993,chi] 48-1431
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] 48-5033
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Forecasting system for snow and freezing. Masuda, Y., et al, [1986,jpn] 48-20
Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] 48-1452
Freeze/frost data. Koss, W.J., et al, [1988,eng] 48-4399
Frost Data Base (FDB). Svensson, J., [1993,swe] 48-3078
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,chi] 48-4491
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,eng] 48-5264
Frost heave study in Japan. Ishizaki, T., [1993,eng] 48-1427
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] 48-4500
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] 48-5207
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] 48-1468
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,chi] 48-4503
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] 48-5201
Measurement of atmospheric radiation for winter road management. Shimizu, M., et al, [1993,eng] 48-1206
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] 48-4580
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] 48-1719
NYTEMP user's manual: a pavement temperature model. Chen, H.J., [1993,eng] 48-1839
Orthogonal regression study of frost heave in saline soil. Gao, J.P., et al, [1993,chi] 48-1450
Preliminary study on freezing point in soil. Cui, G.X., et al, [1993,chi] 48-4496
Remote sensing of frozen soils in VHF range. Komarov, S.A., et al, [1993,eng] 48-1726
Research of the frostheaving project survey. Huang, J.S., [1993,chi] 48-4581
Road freezing countermeasures in Europe. Wada, J., [1987,jpn] 48-547
Road surface temperature and road surroundings relations observed in thermal mapping. Kajiya, Y., et al, [1993,jpn] 48-1975
Science of snow and ice (12). Inoue, M., [1988,jpn] 48-654
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] 48-5260
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] 48-5219
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] 48-420
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] 48-3215
Study of thermal distribution in concrete located in cold sea environment. Sakurai, H., et al, [1990,jpn] 48-4667
Study on frost heave tests. Kumagai, S., et al, [1988,jpn] 48-588
Study on winter road management methods using forecast reports. Wada, J., et al, [1989,jpn] 48-668
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] 48-4918
Summary of the road report system of the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1989,jpn] 48-669
Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] 48-2699
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] 48-2203
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] 48-256
White Spot Program in Denmark. Kasai, A., [1987,jpn] 48-549
Winter highway maintenance data, Vol.2. Grenney, W.J., et al, [1993,eng] 48-1847

Frost heave
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] 48-376
Basic forms of damage to concrete by frost. Mironov, S.A., [1992,rus] 48-1393
Best compaction dry density study of sulphate salty soil. Fei, X.L., et al, [1993,chi] 48-1449
Calculation of frost heave in saturated soil under constant surcharge. Sheng, Y., [1994,eng] 48-3395
Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] 48-462
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave. Fowler, A.C., et al, [1993,eng] 48-5205
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] 48-461
Cryogenic processes and phenomena in Mongolia. Lombo-rinchen, R., [1993,eng] 48-426
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Dependence of segregation potential on the thermal and hydraulic conditions predicted by model M_1. Nakano, Y., [1994,eng] 48-5151
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] 48-380
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] 48-1400
Essential types of heave development for soil freezing. Xu, X.Z., et al, [1993,chi] 48-1431
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] 48-5033
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Experimental studies on ice segregation and the modes of frost heaving. Chen, R.J., et al, [1993,eng] 48-5195
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] 48-5233
Experiments with deep drainage. Bäckman, L., [1993,swe] 48-2706
Field monitoring of frost-related sidewalk cracking. Baker, T.H.W., et al, [1994,eng] 48-3366
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] 48-508
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost Data Base (FDB). Svensson, J., [1993,swe] 48-3078
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Frost heave damage to buildings and water pipelines in permafrost. Jiao, T.B., [1993,chi] 48-4507
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] 48-460
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] 48-4480
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,chi] 48-4491
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,eng] 48-5264
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] 48-394
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] 48-510
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Frost heave study in Japan. Ishizaki, T., [1993,eng] 48-1427
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-371
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] 48-4500
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] 48-5207
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] 48-3953
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216

Frost susceptibility of powdered calcium carbonate. Chen, X.B., et al, [1993,eng] 48-5198
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis. Nakano, Y., et al, [1994,eng] 48-3793
Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] 48-1408
Heave and settlement of soils in one freeze-thaw cycle. Chen, X.S., et al, [1993,eng] 48-5197
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Influence of frost heave on pile stability. Liu, H.X., [1993,eng] 48-424
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] 48-477
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] 48-5191
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] 48-1468
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] 48-692
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] 48-5190
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] 48-386
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] 48-2020
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] 48-5262
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-885
Orthogonal regression study of frost heave in saline soil. Gao, J.P., et al, [1993,chi] 48-1450
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] 48-1515
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] 48-437
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Porous slab mixtures to prevent frost damage to roads. Zhu, Y.B., et al, [1993,chi] 48-4506
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] 48-5218
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] 48-479
Prevention of frost damage to canals. Chen, X.B., [1993,eng] 48-5189
Problems of slope protection latticeworks in cold regions. Noto, S., et al, [1988,jpn] 48-562
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-5180
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] 48-3214
Reducing frost mounds under foundations by lowering the water table. Liu, S.F., et al, [1993,chi] 48-4495
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] 48-5225
Relationship between ice intrusion temperature and confined pressure. Chen, R.J., et al, [1993,eng] 48-5196
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Research of frost heave property of soil in Daqing region. Jang, H.J., et al, [1993,eng] 48-405
Research of porous slab structures for preventing frost damage of roads. Zhu, Y.B., et al, [1993,eng] 48-5266
Research of the frostheaving project survey. Huang, J.S., [1993,chi] 48-4581
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] 48-2116
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] 48-5260
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] 48-4494
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] 48-5217
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] 48-467
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Sorted circles in an empty cirque at the head of the Urumqi River. Xiong, H.G., et al, [1993,eng] 48-5253
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] 48-1976
Study and development of the techniques against frost damage of hydraulic structures. Xu, B.M., et al, [1993,eng] 48-5254
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] 48-3215
Study of preventing frost heave with shaft construction for dissipating water energy. Wang, S.R., [1993,chi] 48-4501
Study on frost heave tests. Kumagai, S., et al, [1988,jpn] 48-588
Study on preventing frost heave of the shaft-type energy dissipator. Wang, S.R., [1993,eng] 48-5246
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463
Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] 48-2699
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442
Winter roads in Nagano Prefecture. Higashiura, K., [1988,jpn] 48-572

Frost line
See [also]: Frost penetration

Frost mounds
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Palsa formation in the Daisetsu Mountains, Japan. Sone, T., et al, [1993,eng] 48-5238
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Reducing frost mounds under foundations by lowering the water table. Liu, S.F., et al, [1993,chi] 48-4495
See [also]: Hummocks; Pingos

Frost penetration
Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] 48-462
Construction calculation for freeze and thaw depths in soils.[1988,eng] 48-763
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] 48-430
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Frost Data Base (FDB). Svensson, J., [1993,swe] 48-3078
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] 48-4500
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] 48-5207
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] 48-296
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Long range forecasting of spring inflow into the Cheboksary reservoir. Chemerenko, E.P., [1992,rus] 48-1947
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] 48-4580
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-885
Research of frost heave property of soil in Daqing region. Jang, H.J., et al, [1993,eng] 48-405
Research of the frostheaving project survey. Huang, J.S., [1993,chi] 48-4581
Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] 48-5241
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] 48-5219
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] 48-420
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] 48-4918
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] 48-887
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] 48-1840
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
See [also]: Thaw depth

Frost protection
Anti-siphon frost free faucet. Enterante, F., et al, [1990,eng] 48-2182
Arctic and subarctic construction: utilities.[1987,eng] 48-1141
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] 48-4917
Compound to increase the frost-resistance of hardened concrete. Berntsson, L., et al, [1991,eng] 48-2252
Concrete masonry handbook for architects, engineers, builders. Panarese, W.C., et al, [1991,eng] 48-2668
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] 48-2236
Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,eng] 48-5261
Durable surface coatings for rubber articles e.g. wiper blades and seal packings. Hirokawa, Y., et al, [1993,eng] 48-5523
Effects of high-range water reducers on the properties of fresh and hardened concrete. Zakka, Z.A., et al, [1989,eng] 48-3707
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] 48-5077
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] 48-5233
Experiments with deep drainage. Bäckman, L., [1993,swe] 48-2706
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Frost heave damage to buildings and water pipelines in permafrost. Jiao, T.B., [1993,chi] 48-4507
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] 48-3953
Frost resistance of portland cement concrete with admixtures. Khan, S.A., [1992,eng] 48-805
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216
Frost susceptibility of powdered calcium carbonate. Chen, X.B., et al, [1993,eng] 48-5198
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
Insulated tunnel liner and rehabilitation system. Weholt, R.L., [1990,eng] 48-2165
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994, [1994,eng] 48-4404
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Mixture for construction of car-road base. Leoshk vich, E.A., et al, [1992,eng] 48-4428
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Optimal thermal regime of pipeline gas transportation in permafrost zone. Antonov-Druzhinin, V.P., [1994,eng] 48-3989
Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] 48-5067
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] 48-4809
Porous slab mixtures to prevent frost damage to roads. Zhu, Y.B., et al, [1993,chi] 48-4506
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] 48-5218
Prevention of frost damage to canals. Chen, X.B., [1993,eng] 48-5189
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-5180

Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] 48-5066
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Reducing frost mounds under foundations by lowering the water table. Liu, S.F., et al, [1993,chi] 48-4495
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] 48-5225
Repair and protection of concrete structures. Mailvaganam, N.P., ed, [1992,eng] 48-2653
Repair of pavement distress in permafrost. Luo, W.Q., [1993,chi] 48-4504
Research of porous slab structures for preventing frost damage of roads. Zhu, Y.B., et al, [1993,eng] 48-5266
Road design and renovations of the north slope in Da Hinggan Ling. Luo, W.Q., [1993,eng] 48-5227
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] 48-5217
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] 48-1976
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915
Study and development of the techniques against frost damage of hydraulic structures. Xu, B.M., et al, [1993,eng] 48-5254
Study of preventing frost heave with shaft construction for dissipating water energy. Wang, S.R., [1993,chi] 48-4501
Study on preventing frost heave of the shaft-type energy dissipator. Wang, S.R., [1993,eng] 48-5246
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] 48-1840
Water tank cathodic protection system. Garlinger, R.A., [1990,eng] 48-2170
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954

Frost resistance
Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Airfield pavement evaluation: Springfield Air National Guard Base, Ohio. Buncher, M.S., et al, [1991,eng] 48-3667
Alberta Concrete Patch Evaluation Program. Gurjar, S., et al, [1987,eng] 48-4402
ASTM C666(A) freeze-thaw durability of air-entrained wet- and dry-mix shotcrete. Durand, B., et al, [1993,eng] 48-1471
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4362
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] 48-2559
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] 48-1256
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] 48-4835
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] 48-1758
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] 48-1257
Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] 48-3981
Durability of high performance concrete. Hansen, M.R., [1993,eng] 48-3538
Durability of high strength concrete: study on frost resistance. Han, C.G., [1993,kor] 48-3996
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion. Borisov, V.E., et al, [1990,rus] 48-59
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] 48-3606
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] 48-5077
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects. Lee, W.J., [1994,eng] 48-3544
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] 48-5085
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] 48-1601
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo*. Hincha, D.K., et al, [1993,eng] 48-1255
Freeze-thaw durability of roller-compacted concrete made with Rolad binder. Delagrave, A., et al, [1994,fre] 48-5143
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et al, [1993,eng] 48-3936
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] 48-3953
Frost resistance of portland cement concrete with admixtures. Khan, S.A., [1992,eng] 48-805
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash. Chun, B.S., et al, [1993,eng] 48-3117
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
Frost susceptibility of powdered calcium carbonate. Chen, X.B., et al, [1993,eng] 48-5198
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
High performance air entrained concrete for a bridge in Quebec. Aïtcin, P.C., et al, [1993,eng] 48-2657
High performance concrete for highway applications: field results. Schemmel, J.J., et al, [1993,eng] 48-2658
High performance concrete mixtures for durability. Shilstone, J.M., Sr., et al, [1993,eng] 48-2659
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
Influence of pore characteristic on deformation during material freezing. Wang, J.C., et al, [1993,chi] 48-1432
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskii, I.N., ed, [1991,rus] 48-1910
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] 48-5188
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] 48-5391
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Low temperature properties of asphalts and asphaltic mixtures. Moriyoshi, A., et al, [1993,eng] 48-5089
Mathematical model of concrete temperature deformations during freezing-thawing. Pavlov, A.R., et al, [1994,eng] 48-3955
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Molecular aspects of frost injury in herbaceous plants. Pa..., J.P., et al, [1993,eng] 48-1253
Molecular biology of plant c old hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] 48-5262
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-885
Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] 48-4916
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] 48-4809
Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] 48-3945
Porous slab mixtures to prevent frost damage to roads. Zhu, Y.B., et al, [1993,chi] 48-4506
Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] 48-5066
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] 48-4834
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Research of porous slab structures for preventing frost damage of roads. Zhu, Y.B., et al, [1993,eng] 48-5266
Rheological properties of regular and polymer modified asphalts. Gagnon, P.F., et al, [1993,eng] 48-5090
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Significance of pavement design and materials in D-cracking. Final report. Stark, D.C., [1991,eng] 48-4899
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] 48-1976
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Structure and frost resistance of centrifuged concrete with admixtures. Ivanov, F.M., et al, [1989,rus] 48-307
Study of thermal distribution in concrete located in cold sea environment. Sakurai, H., et al, [1990,jpn] 48-4667
Study on frost heave tests. Kumagai, S., et al, [1988,jpn] 48-588
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] 48-5069
Tribology of frost-resistant antifriction materials. Cherskii, I.N., et al, [1994,eng] 48-3980
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
Types of limiting conditions and factors which govern the cold resistance of supporting structures. Kuz'min, V.R., [1990,rus] 48-57
Welding of quenched and tempered steel at low temperatures. Lagerqvist, O., et al, [1994,eng] 48-3982
Why is there air in concrete. Hover, K.C., [1993,eng] 48-286
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628
Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954

Frost riving
See [also]: Frost shattering

Frost shattering
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Denudation rate by gelifraction in Tian Shan. Liu, G.N., et al, [1992,chi] 48-2013
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] 48-2563
Influence of below-freezing temperatures on the shear behavior of wet rock joints. Park, Y.J., [1992,eng] 48-3528
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156

Frost weathering
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237
Denudation rate by gelifraction in Tian Shan. Liu, G.N., et al, [1992,chi] 48-2013
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849
Frost physical weathering at the Great Wall Station. Cui, Z.J., et al, [1992,eng] 48-79
Frost weathering at the Great Wall Station. Xiong, H.G., et al, [1992,eng] 48-77
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Index system for delineating landslide regions. Wang, C.H., et al, [1992,eng] 48-4409
Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway. Zhao, X.F., [1992,chi] 48-1488
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156
Winter-associated changes in dry soil aggregation. Layton, J.B., [1993,eng] 48-3534

Frozen cargo
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984

Frozen ground

Applications of data base technology in frozen soil researches. Xia, Z.Y., [1993,chi] **48-4397**

Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] **48-1424**

Delta^{13}C-analysis of permafrost soil samples of NE- Siberia. Pfeiffer, E.M., et al, [1993,eng] **48-2304**

Dependence of segregation potential on the thermal and hydraulic conditions predicted by model M_1. Nakano, Y., [1994,eng] **48-5151**

Developing means of controlling weeds in meadow agrophytocenoses. D'iachkovskiĭ, V.V., [1988,rus] **48-915**

Dilatometer for determination of the compression modulus of soils under field conditions. Blekhman, D.A., et al, [1990,eng] **48-1388**

Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] **48-2366**

Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil. Grant, C.L., et al, [1993,eng] **48-721**

Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] **48-2156**

Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] **48-5162**

Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] **48-2443**

Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis. Nakano, Y., et al, [1994,eng] **48-3793**

Introduction of application methods for CT in frozen soil experimental research. Pu, Y.B., [1993,eng] **48-5231**

Introduction of applying method for CT in frozen soil experiment research. Pu, Y.B., [1993,chi] **48-1459**

Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] **48-1426**

Local introduction of fertilizer. Antipina, D.K., [1988,rus] **48-912**

Long range forecasting of spring inflow into the Cheboksary reservoir. Chemerenko, E.P., [1992,rus] **48-1947**

Microelements in soils of southern Yakutia. Shindler, D.R., et al, [1992,rus] **48-4146**

Mikrobiologiia kriolitozony (na primere Zabaĭkal'ia). Nimaeva, S.Sh., [1992,rus] **48-3633**

Origin of dislocations in frozen sediments of the Yamal Peninsula. Velikotskiĭ, M.A., [1992,rus] **48-1394**

Permafrost: a bibliography, 1978-1982. Brennan, A.M., [1983,eng] **48-2986**

Placement of cryosols in soil taxonomy. Arnold, R.W., et al, [1993,eng] **48-2273**

Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] **48-2272**

Principles of the Canadian cryosol classification. Tarnocai, C., [1993,eng] **48-2274**

Problems in the rational use of alassy. Desiatkin, R.V., [1988,rus] **48-910**

Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost. Cheng, G.D., et al, [1993,chi] **48-4569**

Soil cover of the southern taiga in Central Siberia. Gorbachev, V.N., et al, [1992,rus] **48-4149**

Soils of Casey Station (Wilkes Land, Antarctica). Blume, H.P., et al, [1993,eng] **48-2281**

Unfrozen water types in frozen soils. Ostroumov, V.E., [1993,eng] **48-2298**

Use and preservation of agricultural resources of Yakutia; collected scientific papers. Konorovskiĭ, A.K., ed, [1988,rus] **48-908**

Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] **48-4798**

See [also]: Geocryology; Soil freezing

Frozen ground chemistry

Application of chromatograph in the study of frozen soils. Deng, Y.S., [1993,chi] **48-1457**

Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] **48-1230**

Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] **48-5595**

Best compaction dry density study of sulphate salty soil. Fei, X.L., et al, [1993,chi] **48-1449**

Chemical denitrification in frozen soils. Christianson, C.B., [1981,eng] **48-3924**

Compressing properties and salt heaving mechanism study of sulphate salty soil. Fei, X.L., et al, [1993,eng] **48-5204**

Determination of the amount of carbon in highly cryoturbated soils. Kimble, J.M., et al, [1993,eng] **48-2302**

Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] **48-2294**

Dissolution of cementing ice and gas hydrates in permafrost rocks. Mikhailov, V.A., [1994,eng] **48-3976**

Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] **48-1739**

Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] **48-526**

Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] **48-435**

Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] **48-432**

Grinding of frozen soil samples. Esala, M.J., [1994,eng] **48-5389**

Heat and mass transfer in frozen saline kaolin. Xu, X.Z., et al, [1992,chi] **48-2009**

Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] **48-1408**

Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] **48-1241**

Impact of salt type on deformation of frozen saline soils. Roman, L.T., et al, [1993,eng] **48-5234**

Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] **48-444**

Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] **48-1402**

Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] **48-1887**

Microelements in soils of southern Yakutia. Shindler, D.R., et al, [1992,rus] **48-4146**

New techniques in studying humic substances in permafrost soils. Ping, C.L., et al, [1993,eng] **48-2305**

Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] **48-2414**

Orthogonal regression study of frost heave in saline soil. Gao, J.P., et al, [1993,chi] **48-1450**

Pool and renovation time of soil carbon in northern taiga and tundra of European Russia. Cherkinskiĭ, A.E., et al, [1993,eng] **48-2306**

Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] **48-1897**

Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] **48-4160**

Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] **48-2289**

Second order phase change in saline freezing soil. Zhang, L.X., et al, [1992,chi] **48-1411**

Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] **48-3706**

Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] **48-4359**

Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] **48-2293**

Study on the general thermal parameters of the frozen NaCl soil. Zhang, L.X., et al, [1993,chi] **48-1436**

Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] **48-2318**

Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] **48-2699**

Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] **48-1404**

Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] **48-1403**

Frozen ground compression

Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] **48-803**

Consolidation of deep layer frozen soils in triaxial tests. Li, K., et al, [1993,eng] **48-5222**

Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] **48-1399**

Depth consolidation of frozen soils in triaxial tests. Li, K., et al, [1993,chi] **48-4497**

Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] **48-1400**

Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] **48-1416**

Frost heave study in Japan. Ishizaki, T., [1993,eng] **48-1427**

Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] **48-1408**

Influence of various factors on dynamic elastic modulus of frozen silt. He, P., et al, [1992,chi] **48-1420**

Introduction of software used for experiment of mechanics of frozen soil. Shen, Z.Y., [1993,chi] **48-1455**

Microstructure damage in the frozen soil creep process. Zhang, C.Q., et al, [1993,chi] **48-1439**

Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] **48-5229**

New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] **48-1405**

Overburden pressure and ice formation in clay. Wang, J.C., et al, [1993,chi] **48-1433**

Pressure influence on pore characteristic of frozen soils. Wang, J.C., et al, [1992,chi] **48-1410**

Pressure influence on pore characteristics of frozen soils. Wang, J.C., et al, [1993,eng] **48-5244**

Relationship between ice intrusion temperature and confined pressure. Chen, R.J., et al, [1993,eng] **48-5196**

Similarity analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,eng] **48-5220**

Similitude analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,chi] **48-1448**

Similitude modeling of frozen soil excluding overburden. Zhu, L.N., et al, [1992,chi] **48-1419**

Strength and yield criteria of frozen soil. Ma, W., et al, [1992,chi] **48-1417**

Strength characteristic of frozen sandy soil. Wu, Z.W., et al, [1993,chi] **48-1445**

Study on creep of frozen soil by damage mechanics. Miao, T.D., et al, [1993,chi] **48-1438**

Frozen ground expansion

Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] **48-462**

Coefficients of linear expansion of freezing soils. Mordovskiĭ, S.D., et al, [1993,eng] **48-70**

Design of piles in swelling soils. Shishkin, V.IA., [1990,eng] **48-1387**

Influence of frost heave on pile stability. Liu, H.X., [1993,eng] **48-424**

Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] **48-2750**

Frozen ground mechanics

Analogic conditions of simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] **48-1443**

Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] **48-459**

Creep effects on a laterally loaded pile. Domaschuk, L., et al, [1993,eng] **48-377**

Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] **48-434**

Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] **48-461**

Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] **48-380**

Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] **48-1264**

Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] **48-651**

Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] **48-1014**

Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] **48-3394**

Dynamic strength and deformation properties of saturated frozen silt. He, P., et al, [1993,chi] **48-1447**

Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] **48-2351**

Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] **48-492**

Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] **48-476**

Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] **48-482**

Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] **48-4934**

Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] **48-4258**

Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] **48-460**

Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] **48-4480**

Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] **48-2330**

Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] **48-371**

Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] **48-409**

Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] **48-4839**

Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] **48-500**

Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] **48-5179**

Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] **48-5041**

Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] **48-4821**

Impact of salt type on deformation of frozen saline soils. Roman, L.T., et al, [1993,eng] **48-5234**

Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] **48-483**

Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] **48-502**

Introduction of software used for experiment of mechanics of frozen soil. Shen, Z.Y., [1993,chi] **48-1455**

Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] **48-692**

Laser detection of creep in frozen soil. Wang, T.D., et al, [1993,chi] **48-1456**

Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] **48-496**

Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] **48-478**

Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] **48-2449**

Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] **48-5229**

Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] **48-2430**

Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] **48-386**

Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] **48-2020**

Notched Charpy bar impact test on frozen soil. Yu, Q.H., et al, [1993,eng] **48-5258**

Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] **48-5290**

Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] **48-212**

Plastic frozen (saline) soil as bases. Aksenov, V.I., et al, [1993,eng] **48-349**

Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskii, V.D., et al, [1994,eng] 48-2805
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Questions on the preservation of frozen straw-colored soils. Sleptsov, V.I., et al, [1988,rus] 48-911
Research of frost heave property of soil in Daqing region. Jang, H.J., et al, [1993,eng] 48-405
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Saturated soil compaction by blasts under winter conditions. Minaev, O.P., et al, [1994,eng] 48-4486
Simulation of soil freeze-thaw mechanics. Zhu, L.N., et al, [1993,eng] 48-509
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Solution to problems in mining ore deposits in the North. Grinev, V.G., [1992,rus] 48-652
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431
Strength characteristic of frozen sandy soil. Wu, Z.W., et al, [1993,chi] 48-1445
Study of practicability about photoviscoelastic simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] 48-1444
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] 48-357
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1992,chi] 48-1415
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1993,eng] 48-5250
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013

Frozen ground physics

Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309
Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] 48-651
Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] 48-2294
Dynamics of the decomposition of butyl 2,4-D ether in frozen soils. Chakhov, V.K., et al, [1988,rus] 48-913
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] 48-477
Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils. Minkovskii, G.M., et al, [1993,eng] 48-2292
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1153
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] 48-437
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Seasonal emission of methane from the active layer of organic tundra soils—scale and controlling factors. Christensen, T.R., [1993,eng] 48-2308
Soil biological activity and transformation of organic matter during winter. Zolotareva, B., et al, [1993,eng] 48-2307
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465

Frozen ground settling

Design of piles in swelling soils. Shishkin, V.IA., [1990,eng] 48-1387
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] 48-3975
Heave and settlement of soils in one freeze-thaw cycle. Chen, X.S., et al, [1993,eng] 48-5197
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] 48-1468
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Performance of a water retaining dyke on a discontinuous permafrost foundation. Witteboile, R.J., et al, [1994,eng] 48-3397
Permafrost change for asphalt pavement along Qinghai-Xizang highway. Wang, S.L., et al, [1993,eng] 48-5245
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] 48-4493
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] 48-4494
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] 48-5217
Similarity analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,eng] 48-5220
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256
Towards rational deformation limit states for buried pipelines. Zhou, Z.L., et al, [1993,eng] 48-4313

Frozen ground strength

Analogic conditions of simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] 48-1443
Arctic and subarctic construction foundations for structures.[1983,eng] 48-762
Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Change of pore ice and ice phase stress during the creep process of frozen soil. Ma, W., et al, [1993,chi] 48-1440
Characteristic of shear creep of frozen fine sand. Mi, H.Z., et al, [1993,chi] 48-4579
Compressing properties and salt heaving mechanism study of sulphate salty soil. Fei, X.L., et al, [1993,eng] 48-5204
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] 48-803
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] 48-3393
Consolidation of deep layer frozen soils in triaxial tests. Li, K., et al, [1993,eng] 48-5222
Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] 48-1399
Creep and creep strength of frozen soil. Ma, W., et al, [1993,chi] 48-1441
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Depth consolidation of frozen soils in triaxial tests. Li, K., et al, [1993,chi] 48-4497
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] 48-1102
Determining strength of frozen soil with radial-split method. Shen, Z.Y., et al, [1992,chi] 48-1418
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] 48-1103
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] 48-395
Dynamic strength and deformation properties of saturated frozen silt. He, P., et al, [1993,chi] 48-1447
Dynamics of the elements of climate and the strength of the active layer in western Yakutia. Vasil'ev, I.S., [1992,rus] 48-4779
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] 48-1400
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] 48-486
Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] 48-1416
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Heat and mass transfer in frozen saline kaolin. Xu, X.Z., et al, [1992,chi] 48-2009
Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] 48-1408
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] 48-5242
Highwall stability in strip mines in permafrost. Vakili, J., [1994,eng] 48-3392
Impact of salt type on deformation of frozen saline soils. Roman, L.T., et al, [1993,eng] 48-5234
Influence of frost heave on pile stability. Liu, H.X., [1993,eng] 48-424
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] 48-483
Influence of various factors on dynamic elastic modulus of frozen silt. He, P., et al, [1992,chi] 48-1420
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Introduction of software used for experiment of mechanics of frozen soil. Shen, Z.Y., [1993,chi] 48-1455
Long-term shear strength at frozen/unfrozen transition zone. Ding, J.K., et al, [1992,chi] 48-1407
Long-term shear strength of frost-thaw transit zone. Ding, J.K., et al, [1993,eng] 48-5203
Long-term shear strength of frost-thaw transition zone. Ding, J.K., et al, [1993,chi] 48-4492
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Method of forming soil base on frozen ground. Petrov, B.G., et al, [1992,eng] 48-5512
Microstructure damage in the frozen soil creep process. Zhang, C.Q., et al, [1993,chi] 48-1439
Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] 48-5229
New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] 48-1405
Notched Charpy bar impact test on frozen soil. Yu, Q.H., et al, [1993,eng] 48-5258
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] 48-5262
On the mechanics of frozen soil cutting. Yu, Q., et al, [1993,eng] 48-759
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-885
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Overburden pressure and ice formation in clay. Wang, J.C., et al, [1993,chi] 48-1433
Pressure influence on pore characteristics of frozen soils. Wang, J.C., et al, [1993,eng] 48-5244
Primary research of determining strength of frozen soil with axial-split method. Shen, Z.Y., et al, [1993,chi] 48-1446
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-5180
Rock and frozen ground breaking device using heating elements. Kharitonov, M.A., et al, [1992,eng] 48-5533
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] 48-5260
Similarity analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,eng] 48-5220
Similitude analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,chi] 48-1448
Similitude modeling of frozen soil excluding overburden. Zhu, L.N., et al, [1992,chi] 48-1419
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Strength and yield criteria of frozen soil. Ma, W., et al, [1992,chi] 48-1417
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431
Strength characteristic of frozen sandy soil. Wu, Z.W., et al, [1993,chi] 48-1445
Study of practicability about photoviscoelastic simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] 48-1444
Study on creep of frozen soil by damage mechanics. Miao, T.D., et al, [1993,chi] 48-1438
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] 48-3959
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256
Thaw-consolidation of unsaturated frozen soil. Yang, L.F., et al, [1993,eng] 48-5257
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1992,chi] 48-1415
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1993,eng] 48-5250
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442

Frozen ground temperature

Borehole temperature equilibrium in permafrost. Wang, B.L., [1993,chi] 48-4585
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] 48-3761
Classification of seasonally freezing soils by their thermal regime. Gilichinskii, D.A., [1993,eng] 48-2276
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
Determining strength of frozen soil with radial-split method. Shen, Z.Y., et al, [1992,chi] 48-1418
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] 48-441
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] 48-430
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions. Skriabin, P.N., et al, [1992,rus] 48-4800
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] 48-394
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432

Ground temperature measurement at a permafrost site. Collins, C.M., et al, [1993,eng] 48-5199
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
Influence of various factors on dynamic elastic modulus of frozen silt. He, P., et al, [1992,chi] 48-1420
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,chi] 48-4503
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] 48-5201
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] 48-464
Method determining the thermal conductivity of frozen soil with the heat flow meter. Tao, Z.X., et al, [1992,chi] 48-1414
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] 48-1719
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] 48-384
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] 48-2537
Optimal thermal melioration of soil in climatic conditions of the North. Romanov, P.G., et al, [1992,rus] 48-4791
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Permafrost in the Selenge River basin (on the Mongolian territory). Sharkhuu, A., [1993,eng] 48-5236
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] 48-5212
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Preliminary study on freezing point in soil. Cui, G.X., et al, [1993,chi] 48-4496
Preliminary study on the freezing point in soil. Cui, G.X., et al, [1993,eng] 48-5200
Primary research of determining strength of frozen soil with axial-split method. Shen, Z.Y., et al, [1993,chi] 48-1446
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] 48-1430
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Regularities of perennially frozen ground forming in southern Zabaikalie. Sal'nikov, P.I., [1993,eng] 48-530
Remote sensing of frozen soils in VHF range. Komarov, S.A., et al, [1993,eng] 48-1726
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] 48-5210
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366
Warm permafrost soils of interior Alaska. Moore, J.P., et al, [1993,eng] 48-2282

Frozen ground thermodynamics

Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] 48-391
Change of pore ice and ice phase stress during the creep process of frozen soil. Ma, W., et al, [1993,chi] 48-1440
Changing characteristics of hydraulic diffusivity of unsaturated soil. Deng, Y.S., et al, [1992,chi] 48-1412
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,chi] 48-4396
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,eng] 48-5221
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave. Fowler, A.C., et al, [1993,eng] 48-5205
Creep and creep strength of frozen soil. Ma, W., et al, [1993,chi] 48-1441
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Dissolution of cementing ice and gas hydrates in permafrost rocks. Mikhailov, V.A., [1994,eng] 48-3976
Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil. Badmaeva, S.E., et al, [1992,rus] 48-4793
Essential types of heave development for soil freezing. Xu, X.Z., et al, [1993,chi] 48-1431
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] 48-492
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Feasibility of conveying water by a canal in winter. Wu, Z.W., et al, [1993,chi] 48-1451
Formation and calculation of cold region runoff in the Qilian mountains. Yang, Z.H., [1990,eng] 48-1597
Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] 48-1452
Frost heave study in Japan. Ishizaki, T., [1993,eng] 48-1427
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Heat and mass transfer in frozen saline kaolin. Xu, X.Z., et al, [1992,chi] 48-2009
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] 48-296
Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] 48-1408
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] 48-2297
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] 48-1402
Long-term shear strength at frozen/unfrozen transition zone. Ding, J.K., et al, [1992,chi] 48-1407
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] 48-520
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Method determining the thermal conductivity of frozen soil with the heat flow meter. Tao, Z.X., et al, [1992,chi] 48-1414
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] 48-5190
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] 48-417
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1992,chi] 48-1413
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] 48-5262
Numerical investigation of infiltration into frozen soil. Tao, Y.X., et al, [1993,eng] 48-888
Optimal thermal melioration of soil in climatic conditions of the North. Romanov, P.G., et al, [1992,rus] 48-4791
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] 48-4128
Pressure influence on pore characteristic of frozen soils. Wang, J.C., et al, [1992,chi] 48-1410
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Primary study on interface conditions of ice-saturated clay. Xu, X.Z., et al, [1992,chi] 48-1409
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Second order phase change in saline freezing soil. Zhang, L.X., et al, [1992,chi] 48-1411
Simulation of hydrocarbon spills in permafrost. Corapcioglu, M.Y., et al, [1993,eng] 48-367
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] 48-3706
Study on the general thermal parameters of the frozen NaCl soil. Zhang, L.X., et al, [1993,chi] 48-1436
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-889
Thermophysical and electric properties of saline frozen soils. Frolov, A.D., et al, [1993,eng] 48-890
Thermophysical conditions of frozen soils with regard to their sagging after thawing. Gavril'ev, R.I., [1992,rus] 48-4803
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] 48-887
Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] 48-2699
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] 48-5211
Unfrozen water content and freeze-thaw in saline soil. Zhang, L.X., et al, [1993,chi] 48-1434
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1992,chi] 48-1415
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1993,eng] 48-5250
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247
Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] 48-1404
Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] 48-1403

Frozen lakes

Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] 48-1795
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] 48-3484
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296
See [also]: Icebound lakes

Frozen liquids

Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] 48-3839
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] 48-3624
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] 48-3625
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] 48-2216
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756
Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Twin rinse columns for freeze concentration of rinsable concentrates. Heiland, W.K., et al, [1991,eng] 48-2224
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344

Frozen rock strength

Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2. Mai, H.N., et al, [1994,eng] 48-3958
Criteria of radiation and seismic safety of underground nuclear tests. Dumik, V.P., et al, [1993,eng] 48-4547
Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] 48-447
Drilling characteristics of engineering geology of permafrost on Da Hinggan Ling region. Zou, X.Q., [1993,eng] 48-5267
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
Influence of below-freezing temperatures on the shear behavior of wet rock joints. Park, Y.J., [1992,eng] 48-3528
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] 48-5191
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] 48-4837
Rock and frozen ground breaking device using heating elements. Kharitonov, M.A., et al, [1992,eng] 48-5533
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks. Skriabin, R.M., et al, [1994,eng] 48-3991

Frozen rock temperature

Dissolution of cementing ice and gas hydrates in permafrost rocks. Mikhailov, V.A., [1994,eng] 48-3976
Electric geophysical exploration by resistance methods during investigations into frozen rocks. Modin, I.N., et al, [1991,rus] 48-1389
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water. Gotovtsev, S.P., et al, [1992,rus] 48-4783
Mining impact on permafrost hydrology. Klimovskii, I.V., et al, [1993,eng] 48-522
Permafrost studies in Greenland. Mai, H., et al, [1993,eng] 48-5214
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156

Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering. Hall, K.J., [1993,eng] 48-390
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] 48-516

Frozen rocks
Characteristics of cryogenic weathering of hard rocks, such as dolerites. Gurevich, V.M., [1992,rus] 48-4784
Electric geophysical exploration by resistance methods during investigations into frozen rocks. Modin, I.N., et al, [1991,rus] 48-1389
Frost weathering at the Great Wall Station. Xiong, H.G., et al, [1992,eng] 48-77
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1429
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Rock-forming metals and Pb in modern Alaskan snow. Hinkley, T.K., [1993,eng] 48-3641
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Water migration and ice formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1428

Frozen soil
See [also]: Frozen ground

Fuel additives
Cyclohexyl nitrate fuel additive for cold starting. Dolmatov, V.IU., et al, [1992,eng] 48-5510
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] 48-1753
Production of pour-point depressants for diesel and furnace fuels. Chesnovitskiĭ, K.G., et al, [1993,eng] 48-981
Synthetic diesel oil for use in cold temperatures. Zheng, C., [1993,eng] 48-5524

Fuels
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] 48-4167
New diesel low temperature operability test—AGELFI filtration test. Hamon, D.M., et al, [1994,eng] 48-3088
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] 48-1753
Pellet injection technology. Combs, S.K., [1993,eng] 48-1762
Production of pour-point depressants for diesel and furnace fuels. Chesnovitskiĭ, K.G., et al, [1993,eng] 48-981
Synthetic diesel oil for use in cold temperatures. Zheng, C., [1993,eng] 48-5524

Fungi
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] 48-84
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] 48-2480
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia. Grishkan, I.B., et al, [1993,eng] 48-2301
Room temperature isolations of low temperature microfungi. Carreiro, M.M., et al, [1992,eng] 48-3409

Gamma irradiation
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Reduction of terrestrial gamma rays by snow cover. Sakamoto, R., et al, [1990,jpn] 48-3675

Gas inclusions
Air content of ice deposits near Vostok Station. Lipenkov, V.IA., et al, [1993,rus] 48-3567
Atmosphere-snow transfer function for hydrogen peroxide. Conklin, M.H., et al, [1993,eng] 48-2675
Basal boundary conditions at the Greenland Ice Sheet margin. Souchez, R., et al, [1993,eng] 48-41
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Gravitational separation in polar firn [and response]. Craig, H., et al, [1993,eng] 48-1902
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443

Gas liquefaction
See [also]: Liquefied gases

Gas pipelines
Approximate evaluation of the stress state of unrated sections of a main gas pipeline. Sosin, T.S., et al, [1990,rus] 48-52
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788
Distinguishing features of pipeline construction in arctic regions. Kharionovskiĭ, V.V., [1994,eng] 48-3990
Ensuring and ecological safety of the gas pipelines operating in the permafrost zone. Antonov-Druzhinin, V.P., [1993,eng] 48-5192
Environmental impact of a subsea natural gas pipeline failure. Hyttinen, H., et al, [1994,eng] 48-3986
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Evaluation problems of Russian gas pipeline constructions' resource. Kharionovskiĭ, V.V., [1994,eng] 48-3025
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] 48-2456
Freeze plug isolation for undersea gas line. Knott, T., [1994,eng] 48-5046
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] 48-409
Laying arctic gas pipeline across Baidaratskaya Gulf. Shakirov, R.M., [1993,eng] 48-4314
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Optimal thermal regime of pipeline gas transportation in permafrost zone. Antonov-Druzhinin, V.P., [1994,eng] 48-3989
Permafrost along the Yamal Peninsula gas pipeline. Baulin, V.V., et al, [1993,eng] 48-5193
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Survey of a gas pipeline laid on parts of developed ice wedges. Popov, V.A., [1992,rus] 48-4789
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013

Gas production
Comprehensive analysis of the safety conditions in condensed gas plants in the Far North. Zabusov, V.V., [1993,rus] 48-1908
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] 48-3029
Direct conversion of natural gas to higher hydrocarbon liquids. Sackinger, W.M., et al, [1994,eng] 48-3984
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Northernmost project. Stepanov, S., [1993,rus] 48-1907
Preliminary engineering-geocryological investigations in the oil and gas bearing regions. Mel'nikov, E.S., et al, [1994,eng] 48-3401
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1992,chi] 48-1421
Prospects of exploiting oil and gas resources in the Arctic shelf and tasks of hydrometeorology. Zubakin, G.K., [1992,eng] 48-729
Territorial plan for environmental protection in gas producing regions in Western Siberia. Bud'kova, M.A., [1989,rus] 48-903

Gases
Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Laser spectrometer for stratospheric trace gas measurement. Podolske, J.R., et al, [1993,eng] 48-2407
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
See [also]: Carbon dioxide; Hydrogen; Liquefied gases; Natural gas; Oxygen

Geobotanical interpretation
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] 48-2284

Geochemical cycles
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Chemical denitrification in frozen soils. Christianson, C.B., [1981,eng] 48-3924
Glacigenic stage of substances' turnover. Ivanov, A.V., [1993,eng] 48-1086
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] 48-5039
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] 48-4758

Geochemistry
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] 48-1100
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Correlations between climate records from North Atlantic sediments and Greenland ice. Bond, G., et al, [1993,eng] 48-335
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake. Smith, R.L., et al, [1993,eng] 48-1664
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Geological, geochemical, and operational summary, Aurora Well, Paul, L.E., et al, [1994,eng] 48-3329
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] 48-3245
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskiĭ, D.A., et al, [1993,eng] 48-518
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] 48-456
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] 48-4866
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] 48-1508
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] 48-4121
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Volcanic record in a Greenland ice core. Zielinski, G.A., et al, [1994,eng] 48-3941

Geochronology

Ancient climate from deuterium content of water in volcanic glass. Friedman, I., et al, [1993,eng] **48-1500**

Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] **48-2727**

Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] **48-4245**

Cenozoic glacial history of Antarctica—A correlative synthesis. Moriwaki, K., et al, [1992,eng] **48-921**

Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] **48-3292**

Climate change in continental isotopic records. Swart, P.K., ed, et al, [1993,eng] **48-1494**

Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] **48-3131**

Earth's glacial record. Deynoux, M., ed, [1994,eng] **48-5037**

East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] **48-3294**

Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] **48-3290**

Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] **48-1927**

Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] **48-5038**

Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] **48-4244**

Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley. Patzelt, G., [1977,ger] **48-3313**

Glacigenic sediments related to the glacial history of Prydz Bay. Solheim, A., et al, [1991,eng] **48-3631**

Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] **48-3261**

Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] **48-3529**

Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] **48-4246**

Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] **48-3293**

Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] **48-3549**

Meteorite thermoluminescence and ice movement in the Elephant Moraine region. Benoit, P.H., et al, [1992,eng] **48-2616**

Minor expansion of alpine glaciers in Wright Valley, Antarctica. Hall, B.L., et al, [1992,eng] **48-2625**

Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] **48-2624**

Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] **48-2728**

Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] **48-3532**

Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] **48-1498**

Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] **48-1499**

Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] **48-3040**

Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] **48-1928**

Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] **48-3310**

Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] **48-1923**

Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] **48-4991**

Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] **48-3611**

Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] **48-1925**

Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] **48-1926**

Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] **48-3550**

Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] **48-5040**

Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] **48-920**

Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] **48-292**

Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] **48-3129**

Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] **48-2755**

Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] **48-1777**

Younger Dryas Age advance of Franz Josef Glacier. Denton, G.H., et al, [1994,eng] **48-4926**

Geocryology

Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] **48-2207**

Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] **48-392**

Agricultural melioration and cryoecology in permafrost conditions. Gavril'ev, P.P., [1992,rus] **48-4790**

Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] **48-993**

Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] **48-1009**

Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] **48-1100**

Basic characteristics of the engineering-geocryological conditions of the highlands of inner Tian Shan. Chaus, A.K., [1990,rus] **48-1240**

Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] **48-1424**

Borehole electrometry of permafrost zone. Snegirev, A.M., [1993,eng] **48-532**

Change in the concept of foundation building in the cryolithozone in connection with climate warming. Rastegaev, I.K., [1992,rus] **48-4778**

Characteristics of cryogenic weathering of hard rocks, such as dolerites. Gurevich, V.M., [1992,rus] **48-4784**

Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] **48-3761**

Chemical and physical features of the active layer as related to landslides on Yamal Peninsula. Leibman, M.O., et al, [1993,eng] **48-2299**

Coefficients of linear expansion of freezing soils. Mordovskii, S.D., et al, [1993,eng] **48-70**

Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] **48-3347**

Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] **48-434**

Cryogenesis and paleocryogenesis in soils of Mongolia. Maksimovich, S.V., [1993,eng] **48-2278**

Cryogenic deformation in soils and their engineering geology consequence. Danilov, I.D., et al, [1994,eng] **48-3400**

Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia. Leibman, M.O., [1994,eng] **48-3408**

Cryogenic processes and phenomena in Mongolia. Lombo-rinchen, R., [1993,eng] **48-426**

Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] **48-4827**

Cryolithozone as an indicator of current climate change (Western Siberia). Shpolianskaia, N.A., [1992,rus] **48-4777**

Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] **48-529**

Dynamics of frozen terrain in Central Yakutia after technogenic exposure. Fedorov, A.N., et al, [1992,rus] **48-4797**

Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] **48-4795**

Ecological aspects of the development of the hydro-energy potential of the cryolithozone. Biianov, G.F., et al, [1992,rus] **48-4780**

Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] **48-2540**

Effect of anthropogenic factors on the intensity of cryogenic processes. Bosikov, N.P., [1988,rus] **48-909**

Effect of global climate changes on the cryolithozone of Chukotka. Kotov, A.N., [1992,rus] **48-4776**

Effect of global climate changes on the cryolithozone. Gavrilova, M.K., [1992,rus] **48-4773**

Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] **48-2351**

Effect of lake proximity on permafrost formation. Wu, Q.B., et al, [1993,eng] **48-485**

Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] **48-430**

Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] **48-3404**

Estimating the effectiveness of foam screens for heat melioration in the cryolithozone. Zviagin, V.V., et al, [1993,eng] **48-2611**

Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] **48-4801**

Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] **48-3405**

Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] **48-2373**

Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka). Korolev, S.IU., [1993,eng] **48-2610**

Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] **48-2541**

Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] **48-508**

Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] **48-3832**

Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] **48-4258**

Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] **48-4480**

Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] **48-394**

Frost physical weathering at the Great Wall Station. Cui, Z.J., et al, [1992,eng] **48-79**

Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] **48-1739**

Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] **48-423**

Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] **48-2542**

Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] **48-536**

Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] **48-432**

Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] **48-374**

Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] **48-4641**

High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] **48-2349**

Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] **48-693**

Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] **48-419**

Hydrogeology and engineering geology of the Kirghiz SSR. Talipov, M.A., ed, [1990,rus] **48-1236**

Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] **48-5041**

Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] **48-4260**

Ice wedges in northeastern China. Tong, B.L., [1993,eng] **48-466**

Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] **48-2208**

Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] **48-414**

Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] **48-1606**

Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] **48-458**

Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] **48-3193**

Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] **48-1106**

Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] **48-531**

Microalgae distribution on Signy I. Davey, M.C., et al, [1993,eng] **48-1359**

Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] **48-456**

Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] **48-386**

Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] **48-2020**

Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] **48-5297**

Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] **48-369**

Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] **48-3034**

New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] **48-396**

Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] **48-535**

On the study of nival deposits in Yakutia. Kunitskii, V.V., [1993,eng] **48-524**

Periglacial geomorphology in the 21st century. Barsch, D., [1993,eng] **48-4941**

Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] **48-507**

Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] **48-5022**

Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] **48-356**

Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] **48-515**

Permafrost formation time. Lunardini, V.J., [1993,eng] **48-428**

Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] **48-440**

Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] **48-5290**

Plan for large-scale engineering-geocryological zoning of the highlands of central Tian Shan. Chaus, A.K., [1990,rus] **48-1238**

Plastic frozen (saline) soil as base. Aksenov, V.I., et al, [1993,eng] **48-349**

Post technogenic variations in the cryolithozone in the southern lo wer Anadyr' basin. Kotov, A.N., et al, [1992,rus] **48-4799**

Preliminary engineering-geocryological investigations in the oil and gas bearing regions. Mel'nikov, E.S., et al, [1994,eng] **48-3401**

Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska. Mironova, N.A., [1988,rus] **48-916**

Problems in the stability of gas hydrate deposits in the cryolithozone. Ershov, E.D., et al, [1992,rus] **48-1391**

Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] **48-3406**

Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] **48-1897**

Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskii, V.D., et al, [1994,eng] **48-2805**

Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] **48-350**

Rational methods of building foundations in the southern part of the cryolithozone. Mirenburg, IU.S., et al, [1992,rus] **48-4804**

Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
Regularities of perennially frozen ground forming in southern Zabaikalie. Sal'nikov, P.I., [1993,eng] 48-530
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering. Hall, K.J., [1993,eng] 48-390
Saturated soil compaction by blasts under winter conditions. Minaev, O.P., et al, [1994,eng] 48-4486
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Soil formation and cryogenesis on the Russian plain during the last 125,000 years. Velichko, A.A., et al, [1993,eng] 48-2285
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Status and direction of the development of an observation network for geocryological monitoring. Pavlov, A.V., [1992,rus] 48-4794
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] 48-533
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Understanding the "cryolithosphere" and the dynamics of its development. Shepelev, V.V., [1992,rus] 48-4775
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Use and preservation of agricultural resources of Yakutia; collected scientific papers. Konorovskii, A.K., ed, [1988,rus] 48-908
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543

Geodesy
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422

Geodetic surveys
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Schwarzmilzferner glacier in the Allgäuer Alps. Mader, R., [1991,ger] 48-3657

Geography
Geography meetings, research, and education in the United States. Shi, Y.F., [1993,chi] 48-4570
See [also]: Biogeography

Geologic processes
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824

Geologic structures
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-3257
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] 48-4985
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] 48-4045
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] 48-72
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12

Geological maps
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Geomorphology of Cape Shirreff, Livingston I. Vilaplana, J.M., et al, [1993,spa] 48-4688
Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] 48-2505

Geological surveys
1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] 48-3330
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-3257
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed, et al, [1992,eng] 48-2694
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] 48-4568
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] 48-1492
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] 48-1493
Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] 48-1490
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] 48-1491
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] 48-3329
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] 48-1398
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake. Qiu, G.Q., et al, [1993,eng] 48-2134
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] 48-2131
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] 48-2505
Meteorite thermoluminescence and ice movement in the Elephant Moraine region. Benoit, P.H., et al, [1992,eng] 48-2616
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] 48-4045
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2. 1990, [1992,eng] 48-2514
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Status and direction of the development of an observation network for geocryological monitoring. Pavlov, A.V., [1992,rus] 48-4794
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] 48-72
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236

Geology
See [also]: Engineering geology; Glacial geology; Hydrogeology; Marine geology

Geomagnetism
Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] 48-4692
Gradientometric magnetic survey of arctic ice. Aleksandrov, E.B., et al, [1993,eng] 48-3248

Geomorphology
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] 48-3584
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue. Faure, G., et al, [1992,eng] 48-2615
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] 48-451
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Fluvial lithomorphogenesis in the Protva River valley. Antonov, S.I., et al, [1993,rus] 48-3742
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] 48-2563
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] 48-423
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Geomorphology of Cape Shirreff, Livingston I. Vilaplana, J.M., et al, [1993,spa] 48-4688
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641
Glacial geomorphology: modeling processes and landforms. Harbor, J.M., [1993,eng] 48-4940
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] 48-3652
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] 48-1398
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557

Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] 48-693
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] 48-692
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] 48-3293
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] 48-2883
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] 48-300
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Periglacial geomorphology in the 21st century. Barsch, D., [1993,eng] 48-4941
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] 48-469
Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] 48-515
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] 48-1817
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] 48-4101
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] 48-4371
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12
Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] 48-2755
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105

Geophysical surveys
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Arctic yesterday and today. Kiselev, IU.G., et al, [1992,rus] 48-2741
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Electric geophysical exploration by resistance methods during investigations into frozen rocks. Modin, I.N., et al, [1991,rus] 48-1389
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] 48-4035
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] 48-4109
Geophysical field area fraction estimation. Key, J.R., [1993,eng] 48-2161
Geophysical methods of cryology ecological monitoring. Sedov, B.M., et al, [1993,eng] 48-5235
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] 48-396
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] 48-340
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Permafrost surveys in western Siberia. Burn, R.A., et al, [1993,eng] 48-361
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] 48-1511
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12
Towards a permafrost information and data system. Barry, R.G., et al, [1993,eng] 48-353
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] 48-2470

Geotextiles
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915

Geothermal thawing
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363

Geothermometry
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] 48-5210

Geothermy
Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] 48-374
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] 48-567

Germany
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] 48-829
Surface observation climatic summaries for Fulda AAF, Germany.[1991,eng] 48-4743
Surface observation climatic summaries for Illesheim, Germany.[1991,eng] 48-4739
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany.[1992,eng] 48-4746
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192

—Alps
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521

—Bavarian Alps
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468

Glacial deposits
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan. Talipov, M.A., et al, [1990,rus] 48-1237
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view. Ambach, W., et al, [1993,eng] 48-4092
Cenozoic glacial history of Antarctica—A correlative synthesis. Moriwaki, K., et al, [1992,eng] 48-921
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue. Faure, G., et al, [1992,eng] 48-2615
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] 48-3131
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] 48-4990
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Dynamics of the development of morainal formations on the northern slope of Zailiyskiy Alatau. Tokmagambetov, G.A., et al, [1992,rus] 48-4464
Earth's glacial record. Deynoux, M., ed, [1994,eng] 48-5037
East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] 48-3294
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Evidence for climatic conditions between c . 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] 48-4971
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Fluvial lithomorphogenesis in the Protva River valley. Antonov, S.I., et al, [1993,rus] 48-3742
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Geology of Mount Murphy volcano. LeMasurier, W.E., et al, [1994,eng] 48-3299
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Geomorphology of Cape Shirreff, Livingston I. Vilaplana, J.M., et al, [1993,spa] 48-4688
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany. Wang, C., et al, [1993,eng] 48-1720

Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] 48-4970
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632
Glacigenic sediments related to the glacial history of Prydz Bay. Solheim, A., et al, [1991,eng] 48-3631
Glacigenic stage of substances' turnover. Ivanov, A.V., [1993,eng] 48-1086
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] 48-604
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Information content of paleobotanical material from eastern Taymyr. Kozhevnikov, IU.P., et al, [1993,rus] 48-1640
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] 48-3293
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] 48-2015
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
Minor expansion of alpine glaciers in Wright Valley, Antarctica. Hall, B.L., et al, [1992,eng] 48-2625
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] 48-2624
Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] 48-3532
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
Pleistocene deposits of the White Sea and its coast. Nemtsova, G.M., et al, [1993,rus] 48-3744
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] 48-1010
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] 48-1148
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] 48-1923
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province. Li, S.J., et al, [1992,chi] 48-2011
Quaternary glaciations in the Altai Mountains of China. Cui, Z.J., et al, [1992,chi] 48-2014
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991,ger] 48-3658
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] 48-5039
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Seven million years of glaciation in Greenland. Larsen, H.C., et al, [1994,eng] 48-3942
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskii, I.V., ed, [1992,rus] 48-4452
Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] 48-920
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
Systematization of the concepts related to Quaternary deposits and to their gravitational slope processes. Korzhenevskii, B.I., [1992,rus] 48-3726
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] 48-4121
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777

See [also]: Moraines

Glacial erosion

Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Geomorphology of Cape Shirreff, Livingston I. Vilaplana, J.M., et al, [1993,spa] 48-4688
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] 48-2457
Glacial geomorphology: modeling processes and landforms. Harbor, J.M., [1993,eng] 48-4940
Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley. Patzelt, G., [1977,ger] 48-3313
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] 48-3652
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] 48-4093
Glaciers. Knight, P.G., [1993,eng] 48-3137
Glacigenic sediments related to the glacial history of Prydz Bay. Solheim, A., et al, [1991,eng] 48-3631
Glacigenic stage of substances' turnover. Ivanov, A.V., [1993,eng] 48-1086
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] 48-1398
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505
Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] 48-604
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] 48-1218
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] 48-2209
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] 48-1011
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] 48-2671
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Stone roundness of moraines connected with Taku Glacier, southeastern Alaska. Seppälä, M., [1976,eng] 48-1465
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] 48-2755

Glacial geology

Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations. Cooper, A.K., et al, [1993,eng] 48-3291
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue. Faure, G., et al, [1992,eng] 48-2615
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] 48-4824
Delving into the west antarctic ice sheet. Blankenship, D.D., et al, [1993,eng] 48-771
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Geology of Mount Murphy volcano. LeMasurier, W.E., et al, [1994,eng] 48-3299
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacial geology of Central and North Victoria Land, Antarctica. Verbers, A.L.L.M., et al, [1992,eng] 48-741
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] 48-5162
Glacial rebound and sea level change. Lambeck, K., [1993,eng] 48-742
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] 48-2661
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] 48-3652
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] 48-3232
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] 48-5179
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] 48-3261
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] 48-1218

Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] **48-4985**
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] **48-694**
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] **48-2209**
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] **48-3549**
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] **48-2883**
Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] **48-2878**
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] **48-2522**
Mass movement in the Great Wall Station area, Antarctica. Zhu, C., et al, [1992,eng] **48-78**
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] **48-4178**
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] **48-4269**
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] **48-2517**
Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] **48-5412**
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] **48-633**
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] **48-4976**
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] **48-4825**
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] **48-2566**
Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] **48-3532**
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] **48-4989**
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] **48-2521**
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] **48-4982**
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] **48-2333**
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] **48-972**
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] **48-2417**
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] **48-418**
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] **48-1010**
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] **48-971**
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] **48-1148**
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] **48-2205**
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] **48-2514**
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] **48-3649**
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] **48-2671**
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] **48-3797**
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] **48-3340**
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] **48-1224**
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] **48-3628**
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] **48-2515**
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] **48-4121**
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] **48-5012**
Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] **48-2755**
Use of computer-aided learning packages in glaciology and glacial geology. Hart, J.K., et al, [1993,eng] **48-3602**

Glacial hydrology

1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] **48-5161**
Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] **48-2793**
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] **48-137**
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] **48-2795**
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] **48-1220**
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] **48-3583**
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] **48-4110**
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] **48-2332**
Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] **48-4582**
Discharge of glacierized basins and glacier mass balance. Braun, L.N., et al, [1990,eng] **48-1573**
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] **48-1576**
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] **48-4109**
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] **48-4100**
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] **48-5166**
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] **48-2917**
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains. Cao, Z.T., [1993,chi] **48-4591**
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins. Lawson, D.E., [1993,eng] **48-2538**
Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] **48-2791**
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] **48-2785**
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] **48-4097**
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] **48-3514**
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] **48-2403**
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] **48-3258**
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland. Brown, G.H., et al, [1990,eng] **48-1589**
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] **48-3044**
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] **48-1567**
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] **48-2384**
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] **48-3597**
Ice blisters and ice dolines. Moore, J., [1993,eng] **48-3603**
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] **48-1218**
Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] **48-5570**
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] **48-5139**
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] **48-1585**
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] **48-5311**
Jökulhlaup records 1984-1988. Sigurdsson, O., et al, [1992,ice] **48-5315**
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] **48-1859**
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] **48-2888**
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] **48-2767**
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] **48-2780**
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] **48-4584**
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] **48-5123**
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] **48-3034**
On the influence of alpine glaciers on runoff. Chen, J.Y., et al, [1990,eng] **48-1575**
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] **48-1382**
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] **48-2787**
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] **48-1716**
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] **48-5039**
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] **48-1221**
Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] **48-1582**
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] **48-2774**
Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] **48-1577**
Short term variations in ice dynamics of a glacier in Sweden. Jansson, E.P., [1993,eng] **48-3535**
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] **48-2766**
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] **48-1579**
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] **48-2802**
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] **48-2800**
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] **48-4573**
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] **48-3628**
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] **48-2396**
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] **48-2882**
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] **48-2404**
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] **48-2334**
Supraglacial lake drainage near Søndre Strömfjord, Greenland. Russell, A.J., [1993,eng] **48-2406**
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] **48-2665**
Suspended sediment load and sources in alpine glacier basins. Gurnell, A.M., et al, [1990,eng] **48-1592**
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] **48-2664**
Suspended sediment transport in glacier meltwaters. Collins, D.N., [1990,eng] **48-1590**
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] **48-2756**
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] **48-5160**
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff. Tranter, M., et al, [1993,eng] **48-1775**
Variability of runoff from partially-glacierised alpine basins. Collins, D.N., et al, [1990,eng] **48-1587**
Water balance and glacier mass balance in the Swiss Alps. Aellen, M., et al, [1990,fre] **48-1572**
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] **48-3655**
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] **48-3656**
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] **48-2603**
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] **48-2391**

See [also]: Subglacial drainage

Glacial lakes

Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] **48-2331**
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] **48-4824**
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] **48-2332**
Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] **48-4582**
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] **48-5292**
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal. Meon, G., et al, [1993,eng] **48-2797**
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] **48-2454**
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] **48-4951**
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] **48-2796**
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] **48-3597**
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] **48-5311**
Jökulhlaup records 1984-1988. Sigurdsson, O., et al, [1992,ice] **48-5315**
Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] **48-3529**
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] **48-2095**
Landform and origin of Hanasi Lake, Altay Mountains. Feng, M., [1993,chi] **48-4588**
Major glacier surge continues. Molnia, B.F., [1993,eng] **48-2159**
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] **48-3038**
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] **48-2798**
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] **48-1830**
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] **48-1382**
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] **48-5140**
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] **48-1813**
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] **48-1148**
Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] **48-1581**
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] **48-1221**
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] **48-1363**
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] **48-5012**
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] **48-4372**

Glacial meteorology

Glacial meteorology at the University of Innsbruck. Kuhn, M., [1990,ger] **48-3125**

Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] 48-2917
Himalayas: a third polar region. Bahadur, J., [1993,eng] 48-2784
Investigations of the precipitation conditions in the central part of the Tianshan mountains. Blumer, F.P., [1990,eng] 48-1586
Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] 48-1857
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] 48-612
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region. Zhang, X.P., et al, [1993,chi] 48-4574
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] 48-4573
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] 48-3655

Glacial periods
See [also]: Ice age theory; Paleoclimatology; Pleistocene

Glacial rivers
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
Comparison of bed load yield estimates for a glacial meltwater stream. Warburton, J., [1990,eng] 48-1584
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406

Glaciation
Ancient climate from deuterium content of water in volcanic glass. Friedman, I., et al, [1993,eng] 48-1500
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Cenozoic glacial history of Antarctica—A correlative synthesis. Moriwaki, K., et al, [1992,eng] 48-921
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Climate change in continental isotopic records. Swart, P.K., ed, et al, [1993,eng] 48-1494
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Earth's glacial record. Deynoux, M., ed, [1994,eng] 48-5037
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] 48-952
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Glacial geology of Central and North Victoria Land, Antarctica. Verbers, A.L.L.M., et al, [1992,eng] 48-741
Glacial geomorphology: modeling processes and landforms. Harbor, J.M., [1993,eng] 48-4940
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Holocene marine coastal evolution of the United States. Fairbridge, R.W., [1992,eng] 48-1924
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] 48-3261
Ice masses on the move. Sutherland, D.G., [1990,eng] 48-1504
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] 48-4260
Impact of a repository on permafrost development during glaciation advance. Vallander, P., et al, [1991,eng] 48-4761
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] 48-3529
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] 48-2209
Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] 48-3293
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] 48-2883
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] 48-4945
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina. Trombotto, D., et al, [1993,eng] 48-5240
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure. Sudakova, N.G., et al, [1992,rus] 48-1396
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] 48-4178
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] 48-3233
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] 48-4828
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] 48-2624
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] 48-4825
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] 48-2728
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] 48-3532
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] 48-4982
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] 48-1010
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] 48-1817
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-47 0
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] 48-1148
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] 48-1923
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Scale of the last glaciation in the arctic basin. Pavlidis, IU.A., [1992,eng] 48-2605
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
Seven million years of glaciation in Greenland. Larsen, H.C., et al, [1994,eng] 48-3942
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] 48-920
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] 48-4121
Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] 48-1507
See [also]: Alpine glaciation

Glacier ablation
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia. Schmok, J., [1988,eng] 48-2364
Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] 48-2793
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
Characteristics of the reconstruction of the mass balance of a continental type glacier. Uvarov, V.N., [1992,rus] 48-4456
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Dynamic mass exchange in Tuyuksu Glacier. Makarevich, K.G., et al, [1992,rus] 48-4457
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] 48-740
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Evaluation of the dynamic parameters of Strandline Glacier. Baroni, C., et al, [1992,ita] 48-3287
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] 48-1564
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] 48-4186
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] 48-4104
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements. Cherkasov, P.A., et al, [1992,rus] 48-4459
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
On the calculation of ice ablation. Dreiseitl, E., [1977,ger] 48-3312
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] 48-1317
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] 48-2774
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Shrinkage of glacier ' X010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskii, I.V., ed, [1992,rus] 48-4452
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] 48-1294
World sea level and the present mass balance of the antarctic ice sheet. Paterson, W.S.B., [1993,eng] 48-4185

Glacier alimentation
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Characteristics of the reconstruction of the mass balance of a continental type glacier. Uvarov, V.N., [1992,rus] 48-4456

Developing conditions, amounts and distributions of glaciers in Gongga Mountains. Su, Z., et al, [1993,chi] 48-4587
Dynamic mass exchange in Tuyuksu Glacier. Makarevich, K.G., et al, [1992,rus] 48-4457
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] 48-2786
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskiĭ, I.V., ed, [1992,rus] 48-4452
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] 48-4575
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] 48-2792

Glacier beds
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] 48-400
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] 48-5162
Glaciers. Knight, P.G., [1993,eng] 48-3137
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Possible alpine ice-core drilling sites, an overview. Funk, M., [1994,eng] 48-2719
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] 48-2718
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391

Glacier deposits
See [also]: Glacial deposits

Glacier erosion
See [also]: Glacial erosion

Glacier flow
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view. Ambach, W., et al, [1993,eng] 48-4092
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] 48-4824
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Debris entrainment at an antarctic glacie bed. Tison, J.L., et al, [1993,eng] 48-2393
Disintegrating ice front of Shirase Glacier, East Antarctica. Nishio, F., et al, [1993,eng] 48-1061
Dynamic mass exchange in Tuyuksu Glacier. Makarevich, K.G., et al, [1992,rus] 48-4457
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] 48-3445
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] 48-400
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] 48-5162
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Glaciers. Knight, P.G., [1993,eng] 48-3137
Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] 48-2621
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery. Fahnestock, M.A., et al, [1993,eng] 48-1670
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] 48-2799
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578
Icequakes recorded at Syowa Station, Antarctica. Kaminuma, K., et al, [1993,eng] 48-3278
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] 48-2209
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Monitoring the motion of an antarctic ice stream. Goldstein, R.M., et al, [1993,eng] 48-1669
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] 48-3574
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] 48-4181
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Possible alpine ice-core drilling sites, an overview. Funk, M., [1994,eng] 48-2719
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] 48-1322
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] 48-2620
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Short term variations in ice dynamics of a glacier in Sweden. Jansson, E.P., [1993,eng] 48-3535
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskiĭ, I.V., ed, [1992,rus] 48-4452
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] 48-3663
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] 48-2718
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] 48-3600
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443
Variegated Glacier, 1973-1981. Data file report-1981. Raymond, C.F., et al, [1988,eng] 48-3331
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] 48-3439
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582
Younger Dryas Age advance of Franz Josef Glacier. Denton, G.H., et al, [1994,eng] 48-4926

Glacier fluctuations
See [also]: Glacier oscillation

Glacier formation
Developing conditions, amounts and distributions of glaciers in Gongga Mountains. Su, Z., et al, [1993,chi] 48-4587

Glacier heat balance
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563

Glacier ice
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Changes in the Vestfold Hills ice boundary. Gore, D.B., [1993,eng] 48-3247
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] 48-1854
Delving into the west antarctic ice sheet. Blankenship, D.D., et al, [1993,eng] 48-771
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka). Korolev, S.IU., [1993,eng] 48-2610
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] 48-2711
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] 48-5179
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] 48-1497
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] 48-2715
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] 48-1943
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] 48-4575
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] 48-2712
Stopping an ice stream. Walker, G., [1993,eng] 48-774
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] 48-1855
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391

Glacier mass balance
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia. Schmok, J., [1988,eng] 48-2364
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] 48-137
Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] 48-3661
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] 48-3662
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Characteristics of the reconstruction of the mass balance of a continental type glacier. Uvarov, V.N., [1992,rus] 48-4456

Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] 48-4110
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Discharge of glacierized basins and glacier mass balance. Braun, L.N., et al, [1990,eng] 48-1573
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
Evaluation of the dynamic parameters of Strandline Glacier. Baroni, C., et al, [1992,ita] 48-3287
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Glacier mass balance measurements on Wurtenkees in the Sonnblick region. Böhm, R., [1986,ger] 48-613
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] 48-2917
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Glacier mass-balance measurements: a manual for field and office work. Østrem, G., et al, [1991,eng] 48-312
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033
Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] 48-2669
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Glaciers of the Swiss Alps 1987/88 and 1988/89. Aellen, M., et al, [1993,ger] 48-1211
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins. Lawson, D.E., [1993,eng] 48-2538
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] 48-2785
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] 48-1564
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] 48-3044
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] 48-4186
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] 48-5570
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] 48-5369
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Mass balance of Sarennes Glacier, France, 1989-90. Valla, F., [1993,fre] 48-4115
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] 48-4584
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Modelling of glacier mass balance. Oerlemans, J., [1993,eng] 48-4183
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] 48-1909
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] 48-4103
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] 48-4929
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] 48-2417
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] 48-2787
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991, [1993,ita] 48-4091
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] 48-4117
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] 48-3139
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] 48-4027
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Simple photogrammetric survey methods for glaciology and erosion control. Waldhäusl, P., [1986,ger] 48-610
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] 48-3663
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] 48-1325
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] 48-2545
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
Terrestrial component of the cryosphere. Mel'nikov, P.A., et al, [1993,eng] 48-2705
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] 48-4116
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] 48-3439
Water balance and glacier mass balance in the Swiss Alps. Aellen, M., et al, [1990,fre] 48-1572
World sea level and the present mass balance of the antarctic ice sheet. Paterson, W.S.B., [1993,eng] 48-4185

Glacier melting

Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] 48-2793
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] 48-137
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Climate change and methane. Nisbet, E.G., [1990,eng] 48-1812
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Disintegrating ice front of Shirase Glacier, East Antarctica. Nishio, F., et al, [1993,eng] 48-1061
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] 48-2783
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskii, M., et al, [1994,eng] 48-5370
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] 48-3258
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands). Klöser, H., et al, [1994,eng] 48-4983
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] 48-3044
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] 48-4178
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] 48-3233
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] 48-4584
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] 48-1909
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Retreat of alpine glaciers and the global greenhouse effect. Haeberli, W., [1994,ger] 48-5099
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] 48-2774
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Thinning rate of ice sheet on Mizuho Plateau. Toh, H., et al, [1992,eng] 48-919
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] 48-3655
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] 48-3656
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] 48-187
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

Glacier movement
See [also]: Glacier flow

Glacier oscillation

1550-1620: a period of summer accumulation in the Queen Elizabeth Islands. Alt, B.T., [1985,eng] **48-2729**

Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] **48-4098**

Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] **48-3308**

Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] **48-2782**

Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] **48-4699**

Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] **48-4987**

Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] **48-1565**

Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] **48-2727**

Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] **48-2419**

Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] **48-4245**

Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] **48-3605**

Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] **48-3536**

Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] **48-4702**

Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] **48-3588**

"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] **48-4823**

Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] **48-3630**

Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] **48-4197**

Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] **48-4107**

Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] **48-3584**

Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] **48-4194**

Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] **48-2720**

Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] **48-4113**

Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] **48-4705**

Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] **48-3326**

Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] **48-5319**

Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] **48-5063**

Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] **48-4824**

Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] **48-4110**

Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] **48-4180**

Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] **48-4990**

Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] **48-3804**

Dendrochronology and glacier variations in the Italian Alps. Baroni, C., et al, [1993,ita] **48-4095**

Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] **48-1384**

Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969. Finsterwalder, R., et al, [1977,ger] **48-3309**

Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] **48-1512**

Disintegrating ice front of Shirase Glacier, East Antarctica. Nishio, F. et al. [1993,eng] **48-1061**

Dynamic former ice sheets. Dowdeswell, J.A., [1990,eng] **48-1502**

East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] **48-3294**

Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] **48-947**

Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] **48-2458**

Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] **48-80**

Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] **48-2428**

Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] **48-4971**

Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] **48-3575**

Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] **48-1342**

French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] **48-4094**

General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] **48-2808**

Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] **48-4692**

Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] **48-4244**

Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] **48-4641**

Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] **48-4970**

Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] **48-3632**

Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] **48-4951**

Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] **48-2661**

Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] **48-302**

Glacial start and global warming: what to watch. Kukla, G., [1993,eng] **48-1797**

Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] **48-2572**

Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] **48-2418**

Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] **48-3654**

Glacier of Sweden. Schytt, V., [1993,eng] **48-4031**

Glacier variations 1930-1960, 1960-1990 and 1989-1990. Sigurdsson, O., [1991,ice] **48-5293**

Glacier variations 1930-1960, 1960-1990 and 1990-1991. Sigurdsson, O., [1992,ice] **48-5316**

Glaciers and the environment. Haeberli, W., et al, [1992,eng] **48-1136**

Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] **48-4033**

Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] **48-2669**

Glaciers of Norway. Østrem, G., et al, [1993,eng] **48-4030**

Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] **48-4032**

Glaciers of the Alps. Rott, H., et al, [1993,eng] **48-4028**

Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] **48-4029**

Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] **48-4093**

Glaciers of the Swiss Alps 1987/88 and 1988/89. Aellen, M., et al, [1993,ger] **48-1211**

Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] **48-2711**

Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] **48-2785**

Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] **48-2402**

Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] **48-1564**

Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] **48-1345**

Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] **48-4188**

Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskiĭ, M., et al, [1994,eng] **48-5370**

Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] **48-2662**

Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] **48-604**

Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] **48-4943**

Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] **48-3627**

Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] **48-2340**

Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] **48-3800**

How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] **48-3521**

Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] **48-3597**

Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] **48-4186**

Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] **48-2799**

Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] **48-3261**

Ice masses on the move. Sutherland, D.G., [1990,eng] **48-1504**

Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] **48-4985**

Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] **48-5570**

Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] **48-2682**

Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] **48-4108**

Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] **48-4111**

Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] **48-632**

Late glacial climatic change in British Columbia. Mathewes, R.W., [1985,eng] **48-2726**

Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] **48-2209**

Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] **48-3293**

Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] **48-3424**

Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] **48-1007**

Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] **48-2883**

Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] **48-4945**

Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] **48-5141**

Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] **48-2878**

Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] **48-4104**

Major glacier surge continues. Molnia, B.F., [1993,eng] **48-2159**

Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] **48-1821**

Mass balance of Sarennes Glacier, France, 1989-90. Valla, F., [1993,fre] **48-4115**

Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] **48-4178**

Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] **48-635**

Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] **48-2780**

Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] **48-4828**

Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] **48-5412**

Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] **48-3653**

Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] **48-1677**

Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] **48-4195**

Modelling of glacier mass balance. Oerlemans, J., [1993,eng] **48-4183**

Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] **48-4179**

Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] **48-2568**

Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] **48-1909**

Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] **48-633**

Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] **48-3034**

Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] **48-4103**

Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] **48-4825**

Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] **48-2566**

Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] **48-1011**

Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] **48-4929**

Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] **48-2728**

On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] **48-2853**

On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] **48-960**

Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] **48-4989**

Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] **48-1382**

Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] **48-5230**

Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] **48-4201**

Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] **48-1008**

Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] **48-4972**

Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] **48-2417**

Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] **48-1317**

Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] **48-3750**

Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] **48-971**

Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] **48-1817**

Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] **48-4946**

Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] **48-4770**

Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] **48-2684**

Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] **48-2205**

Preliminary analyses on the synoptic and climatic features in Guliya ice cap region. Zhang, X.P., et al, [1993,chi] 48-4574
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991, [1993,ita] 48-4091
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Quantifying global warming from the retreat of glaciers. Oerlemans, J., [1994,eng] 48-3302
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991 ger] 48-3658
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610
Recent changes in glacier tongues in the Langtang Khola basin. Kappenberger, G., et al, [1993,eng] 48-2776
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] 48-4102
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] 48-4117
Retreat of alpine glaciers and the global greenhouse effect. Haeberli, W., [1994,ger] 48-5099
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] 48-3139
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed. et al, [1993,eng] 48-4027
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Schwarzmilzferner glacier in the Allgäuer Alps. Mader, R., [1991,ger] 48-3657
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Short term variations in ice dynamics of a glacier in Sweden. Jansson, E.P., [1993,eng] 48-3535
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] 48-4184
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Stabilisation of the tidal entrance at Hornafjordur, Iceland. Viggosson, G., et al, [1993,eng] 48-157
Statistics of the measurements of length of Austrian glaciers, 1960-1975. Patzelt, G., [1977,ger] 48-3314
Study of the small ice cap instability in the presence of fluctuations. Lee, W.H., [1994,eng] 48-3551
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] 48-1325
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] 48-3600
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [993,eng] 48-1330
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] 48-4116
Variegated Glacier, 1973-1981. Data file report-1981. Raymond, C.F., et al, [1988,eng] 48-3331
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236

Glacier surfaces

Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] 48-2793
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] 48-3585
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Geomorphology of Cape Shirreff, Livingston I. Vilaplana, J.M., et al, [1993,spa] 48-4688
Ice blisters and ice dolines. Moore, J., [1993,eng] 48-3603
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] 48-632
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] 48-2774
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] 48-1294
Surface state of subpolar glaciers from satellite data. Lefauconnier, B., et al, [1991,fre] 48-3713
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894

Glacier surges

1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskii, M., et al, [1994,eng] 48-5370
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Major glacier surge continues. Molnia, B.F., [1993,eng] 48-2159
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443
Variegated Glacier, 1973-1981. Data file report-1981. Raymond, C.F., et al, [1988,eng] 48-3331

Glacier surveys

1550-1620: a period of summer accumulation in the Queen Elizabeth Islands. Alt, B.T., [1985,eng] 48-2729
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia. Schmok, J., [1988,eng] 48-2364
Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] 48-2793
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] 48-3435
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Atmospheric constituents in high alpine ice cores. Gäggeler, H., et al, [1994,eng] 48-2717
Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] 48-3661
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] 48-3662
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed, et al, [1992,eng] 48-2694
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] 48-1424
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] 48-3122
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] 48-4110
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] 48-2701
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] 48-4582
Design of a scanning, spaceborne radar altimeter for measuring polar ice. Jensen, J.R., et al, [1993,eng] 48-1722
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969. Finsterwalder, R., et al, [1977,ger] 48-3309
Developing conditions, amounts and distributions of glaciers in Gongga Mountains. Su, Z., et al, [1993,chi] 48-4587
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] 48-1065
Discharge of glacierized basins and glacier mass balance. Braun, L.N., et al, [1990,eng] 48-1573
Disintegrating ice front of Shirase Glacier, East Antarctica. Nishio, F., et al, [1993,eng] 48-1061
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] 48-2458
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] 48-3445
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] 48-1576
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] 48-2388
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] 48-4094
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] 48-2661
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] 48-3652
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] 48-2796
Glacier mass balance measurements on Wurtenkees in the Sonnblick region. Böhm, R., [1986,ger] 48-613
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] 48-2917
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] 48-2783
Glacier variations 1930-1960, 1960-1990 and 1989-1990. Sigurdsson, O., [1991,ice] 48-5293
Glacier variations 1930-1960, 1960-1990 and 1990-1991. Sigurdsson, O., [1992,ice] 48-5316
Glaciers and the environment. Haeberli, W., et al, [1992,eng] 48-1136
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033
Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] 48-2669
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028

Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] **48-4029**
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] **48-4093**
Glaciers of the Swiss Alps 1987/88 and 1988/89. Aellen, M., et al, [1993,ger] **48-1211**
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains. Cao, Z.T., [1993,chi] **48-4591**
Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] **48-2791**
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] **48-2711**
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] **48-4213**
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] **48-1307**
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] **48-2785**
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] **48-2402**
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] **48-2710**
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] **48-3514**
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] **48-1345**
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] **48-1295**
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] **48-3044**
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] **48-1567**
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] **48-2400**
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] **48-4186**
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] **48-2713**
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] **48-1860**
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] **48-2799**
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] **48-3441**
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] **48-1226**
Ice-core drilling on Norwegian and Svalbard glaciers. Hagen, J.O., [1994,eng] **48-2716**
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] **48-3578**
Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] **48-5570**
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] **48-1585**
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] **48-3475**
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] **48-4108**
Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] **48-4111**
Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] **48-1857**
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] **48-632**
Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] **48-3710**
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] **48-3424**
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] **48-4104**
Major glacier surge continues. Molnia, B.F., [1993,eng] **48-2159**
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] **48-2888**
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] **48-3415**
Mass balance of Sarennes Glacier, France, 1989-90. Valla, F., [1993,fre] **48-4115**
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] **48-1302**
Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] **48-3436**
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] **48-2767**
Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] **48-3711**
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] **48-4584**
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] **48-3518**
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] **48-2568**
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] **48-1306**
Nepal-Japan cooperation in research on glaciers and climates of the Nepal Himalaya. Higuchi, K., [1993,eng] **48-2769**
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] **48-3574**
Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] **48-4103**
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] **48-2798**
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] **48-4929**
On the calculation of ice ablation. Dreiseitl, E., [1977,ger] **48-3312**
Orthophotomaps of glacierized areas. Brunner, K., [1977,ger] **48-3311**
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] **48-1861**
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] **48-4201**
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] **48-3522**
Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] **48-4928**
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] **48-2417**
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] **48-1317**
Possible alpine ice-core drilling sites, an overview. Funk, M., [1994,eng] **48-2719**
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] **48-2786**
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] **48-2787**
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region. Zhang, X.P., et al, [1993,chi] **48-4574**
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] **48-3433**
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991, [1993,ita] **48-4091**
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] **48-3579**
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] **48-1716**
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] **48-1341**
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] **48-1333**
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] **48-3581**
Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] **48-1305**
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] **48-1328**
Recent Canadian glacier references—1986-1988. Ommanney, C.S.L., [1989,eng] **48-2448**
Recent changes in glacier tongues in the Langtang Khola basin. Kappenberger, G., et al, [1993,eng] **48-2776**
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] **48-4102**
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] **48-2389**
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] **48-1332**
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] **48-3190**
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] **48-4117**
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] **48-2715**
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] **48-3444**
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] **48-2714**
Retreat of alpine glaciers and the global greenhouse effect. Haeberli, W., [1994,ger] **48-5099**
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] **48-3580**
Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] **48-1582**
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] **48-3139**
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] **48-2774**
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] **48-4027**
Satellite Image Atlas of Glaciers. Ferrigno, J.G., et al, [1978,eng] **48-2985**
Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] **48-126**
Satellite measurements for studying the cryosphere. Rott, H., [1990,ger] **48-3126**
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] **48-806**
Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] **48-1577**
Schwarzmilzferner glacier in the Allgäuer Alps. Mader, R., [1991,ger] **48-3657**
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] **48-2401**
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] **48-2390**
Short term variations in ice dynamics of a glacier in Sweden. Jansson, E.P., [1993,eng] **48-3535**
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] **48-2781**
Simple photogrammetric survey methods for glaciology and erosion control. Waldhäusl, P., [1986,ger] **48-610**
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] **48-4096**
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] **48-2766**
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] **48-1778**
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] **48-1579**
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] **48-2771**
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] **48-5136**
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] **48-3550**
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] **48-2802**
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] **48-4575**
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] **48-2792**
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] **48-2712**
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] **48-1303**
Statistics of the measurements of length of Austrian glaciers, 1960-1975. Patzelt, G., [1977,ger] **48-3314**
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] **48-4573**
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] **48-2363**
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] **48-3332**
Subsurface scattering and ice sheet altimetry. Davis, C.H., [1993,eng] **48-1709**
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] **48-2665**
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] **48-1294**
Surface state of subpolar glaciers from satellite data. Lefauconnier, B., et al, [1991,fre] **48-3713**
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] **48-3663**
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] **48-1325**
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] **48-2395**
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] **48-1893**
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] **48-1894**
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] **48-2718**
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] **48-3600**
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] **48-1329**
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] **48-1330**
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] **48-4116**
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] **48-2656**
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] **48-3443**
Variability of runoff from partially-glacierised alpine basins. Collins, D.N., et al, [1990,eng] **48-1587**
Variegated Glacier, 1973-1981. Data file report-1981. Raymond, C.F., et al, [1988,eng] **48-3331**
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] **48-3439**
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] **48-3582**
Water balance and glacier mass balance in the Swiss Alps. Aellen, M., et al, [1990,fre] **48-1572**
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] **48-3655**
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] **48-2509**
Water resources, snow and ice. Haefner, H., et al, [1991,eng] **48-4868**

Glacier thickness

Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] **48-3435**
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] **48-3434**
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] **48-3536**
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] **48-3660**

Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] 48-3584
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Design of a scanning, spaceborne radar altimeter for measuring polar ice. Jensen, J.R., et al, [1993,eng] 48-1722
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969. Finsterwalder, R., et al, [1977,ger] 48-3309
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Glacier-generated ground motions at Bomi, southeastern Tibet. Akamatsu, J., et al, [1993,eng] 48-2754
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] 48-1564
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] 48-2400
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] 48-3441
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] 48-3436
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] 48-1011
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] 48-3433
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] 48-4102
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332
Subsurface scattering and ice sheet altimetry. Davis, C.H., [1993,eng] 48-1709
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] 48-3663
Variegated Glacier, 1973-1981. Data file report-1981. Raymond, C.F., et al, [1988,eng] 48-3331
See [also]: Ice cover thickness

Glacier tongues
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Disintegrating ice front of Shirase Glacier, East Antarctica. Nishio, F., et al, [1993,eng] 48-1061
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Mudflows of Dzhungarskiy Alatau and some characteristics of their formation. Medeuov, A., [1992,rus] 48-4463
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] 48-1148
Recent changes in glacier tongues in the Langtang Khola basin. Kappenberger, G., et al, [1993,eng] 48-2776
Remote sensing analysis of Victoria Land ice shelves and ice tongues. Frezzotti, M., [1992,ita] 48-3288
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329

Glacier variations
See [also]: Glacier oscillation

Glaciers
Altitude variations in ice formation zones on glaciers in Central Tien Shan. Golubev, V.N., et al, [1992,rus] 48-1395
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins. Lawson, D.E., [1993,eng] 48-2538
Ice-covered regions in international law. Joyner, C.C., [1991,eng] 48-998
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
Oceanographic survey near a glacier. Kutin, D.G., et al, [1992,eng] 48-2910
Pedological changes at the edge of a Spitsbergen glacier. Pirożbujow, E., et al, [1992,eng] 48-2432
Report on the *Professor Multanovsky* cruise, 17 July-27 July 1991. Volkov, V.A., [1992,eng] 48-2908
Satellite Image Atlas of Glaciers. Ferrigno, J.G., et al, [1978,eng] 48-2985
See [also]: Cirque glaciers; Mountain glaciers; Rock glaciers

Glaciology
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
1994 IASC meeting report. International Arctic Science Committee, [1994,eng] 48-4644
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Alpine glaciers—memories and mirrors of civilization and a mountain environment. Vivian, R., [1989,fre] 48-1819
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] 48-3585
Annual report—1993. National Snow and Ice Data Center. World Data Center-A for Glaciology, [1993,eng] 48-1369
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] 48-3598
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Bibliographic data file of WDC-A. Shartran, M.J., [1978,eng] 48-2981
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] 48-1424
British Antarctic Survey report for 1992-1993. British Antarctic Survey, [1993,eng] 48-3821
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view. Ambach, W., et al, [1993,eng] 48-4092
Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107
Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] 48-3584
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] 48-3594
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] 48-4110
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Dendrochronology and glacier variations in the Italian Alps. Baroni, C., et al, [1993,ita] 48-4095
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] 48-5177
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] 48-3575
Filchner-Ronne Ice Shelf programme, Report No.5 (1991). Miller, H., ed, et al, [1991,eng] 48-1
Filchner-Ronne Ice Shelf programme, Report No.6 (1992). Oerter, H., ed, [1992,eng] 48-233
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] 48-4094
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Glacier variations 1930-1960, 1960-1990 and 1990-1991. Sigurdsson, O., [1992,ice] 48-5316
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] 48-4093
Glaciers. Knight, P.G., [1993,eng] 48-3137
Glaciological investigations in the Italian National Antarctic Research Program. Orombelli, G., [1992,ita] 48-3289
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] 48-2400
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] 48-3597
Ice blisters and ice dolines. Moore, J., [1993,eng] 48-3603
Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] 48-5179
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] 48-3589
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] 48-4108
Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] 48-4104
Major glacier surge continues. Molnia, B.F., [1993,eng] 48-2159
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Mass balance of Sarennes Glacier, France, 1989-90. Valla, F., [1993,fre] 48-4115
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Modelling of glacier mass balance. Oerlemans, J., [1993,eng] 48-4183
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] 48-3574
Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] 48-4103
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
Outline of glaciological data categories.[1978,eng] 48-2983
Overview of the functions of WDC-A. Barry, R.G., [1978,eng] 48-2979
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] 48-2417
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] 48-4105
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991. [1993,ita] 48-4091
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992. [1993,eng] 48-1292
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992. [1993,eng] 48-2817
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al. [1993,eng] 48-1915
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Recent Canadian glacier references—1986-1988. Ommanney, C.S.L., [1989,eng] 48-2448
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] 48-4102
Recent trends and prospect of Italian glaciological research. Smiraglia, C., [1993,ita] 48-4112
Remote sensing analysis of Victoria Land ice shelves and ice tongues. Frezzotti, M., [1992,ita] 48-3288
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] 48-4117

Results of a survey on WDC-A activities. Shartran, M.J., [1978,eng] **48-2982**
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] **48-3580**
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] **48-4101**
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] **48-68**
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] **48-1760**
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] **48-5175**
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] **48-3139**
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] **48-4027**
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] **48-1298**
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] **48-5159**
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] **48-4444**
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] **48-3592**
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] **48-3572**
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] **48-4184**
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] **48-4096**
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] **48-5176**
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] **48-1294**
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] **48-2545**
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] **48-3600**
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] **48-5160**
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] **48-4116**
Use of computer-aided learning packages in glaciology and glacial geology. Hart, J.K., et al, [1993,eng] **48-3602**
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] **48-3582**
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] **48-3655**
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] **48-2603**
World Atlas of Snow and Ice Resources compiled in the Soviet Union. Kotliakov, V.M., et al, [1978,eng] **48-2984**

Glaze

Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] **48-3565**
Icing study for a future suspended bridge at Montmorency Falls. McComber, P., et al, [1993,eng] **48-2971**
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] **48-2964**
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] **48-5437**
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] **48-4062**
Rime-, mixed- and glaze-ice evaluations of three scaling laws. Anderson, D.N., [1994,eng] **48-4890**
See [also]: Hoarfrost

Global change

Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] **48-1609**
Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] **48-2123**
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] **48-5632**
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] **48-1140**
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] **48-5133**
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] **48-4944**
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] **48-1820**
Climate change in continental isotopic records. Swart, P.K., ed, et al, [1993,eng] **48-1494**
Climate change—its possible impact on the environment and the people of northern regions. Roots, F., [1992,eng] **48-2037**
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] **48-2513**
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] **48-4701**
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] **48-1311**
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] **48-4568**
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] **48-3560**
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] **48-2288**
Did Tibet cool the world. Paterson, D., [1993,eng] **48-1890**
Effect of global climate changes on the cryolithozone of Chukotka. Kotov, A.N., [1992,rus] **48-4776**
Effect of global climate changes on the cryolithozone. Gavrilova, M.K., [1992,rus] **48-4773**
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] **48-2290**
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] **48-3046**
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] **48-1509**
Geography meetings, research, and education in the United States. Shi, Y.F., [1993,chi] **48-4570**
Global change and arctic sea ice. Lemke, P., [1993,eng] **48-183**
Global change and its implications for Alaska. Weller, G., [1992,eng] **48-2031**
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] **48-2286**
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] **48-2402**
Global change policy for Alaska. Cole, H., [1992,eng] **48-2042**
Global climate. Kondrat'ev, K.IA., [1992,rus] **48-304**
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] **48-3255**
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] **48-3730**
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] **48-3050**
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] **48-2030**
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] **48-2682**
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] **48-1496**
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] **48-1495**
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] **48-3728**
Major results from SAGE II. Poole, L.R., et al, [1993,eng] **48-3732**
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] **48-2548**
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] **48-2547**
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] **48-3518**
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] **48-4195**
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] **48-3729**
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] **48-5368**
New techniques in studying humic substances in permafrost soils. Ping, C.L., et al, [1993,eng] **48-2305**
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] **48-2148**
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] **48-1649**
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] **48-3515**
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] **48-4177**
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] **48-3045**
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] **48-4772**
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] **48-3709**
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] **48-3727**
Seasonal emission of methane from the active layer of organic tundra soils—scale and controlling factors. Christensen, T.R., [1993,eng] **48-2308**
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] **48-5132**
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] **48-1312**
Study of global change. International Council of Scientific Unions, [1989,eng] **48-2365**
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] **48-13**
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] **48-191**
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] **48-2125**
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] **48-4758**
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] **48-4571**

Global warming

Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] **48-4643**
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] **48-2033**
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] **48-1565**
Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] **48-285**
Arctic and alpine biodiversity: patterns, causes and ecosystem consequences. Chapin, F.S., III, et al, [1994,eng] **48-4163**
Arctic marine ecosystems. Alexander, V., [1992,eng] **48-1261**
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] **48-4205**
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] **48-1230**
Carbon flux in unmanaged arctic ecosystem . Vourlitis, G.L., et al, [1993,eng] **48-1884**
Change in the concept of foundation building in the cryolithozone in connection with climate warming. Rastegaev, I.K., [1992,rus] **48-4778**
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] **48-1891**
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] **48-4975**
Climate change and methane. Nisbet, E.G., [1990,eng] **48-1812**
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] **48-2039**
Climate change—its possible impact on the environment and the people of northern regions. Roots, F., [1992,eng] **48-2037**
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] **48-5034**
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] **48-4169**
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] **48-2571**
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] **48-2863**
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] **48-4476**
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] **48-1791**
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] **48-2288**
Effect of climatic changes on arctic permafrost environments. Schmiel, E., [1993,eng] **48-451**
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] **48-2019**
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] **48-441**
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] **48-2458**
End of the ice age. Nisbet, E.G., [1990,eng] **48-1747**
Errata. Global warming: a polar approach. Wadhams, P., [1992,eng] **48-1535**
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] **48-2290**
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] **48-1342**
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] **48-5125**
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] **48-4094**
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] **48-5226**
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] **48-4970**
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] **48-1797**
Glaciers and the environment. Haeberli, W., et al, [1992,eng] **48-1136**
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] **48-2286**
Global change policy for Alaska. Cole, H., [1992,eng] **48-2042**
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] **48-3255**
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] **48-2036**
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] **48-1756**
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] **48-363**
Global warming on trial. Broecker, W.S., [1992,eng] **48-1611**
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] **48-2035**
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] **48-1564**
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] **48-3557**
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] **48-2662**
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] **48-2054**

Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] 48-2030
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] 48-319
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] 48-1053
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Modelling of glacier mass balance. Oerlemans, J., [1993,eng] 48-4183
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Open-top devices for manipulating field temperatures in tundra ecosystems. Marion, G.M., et al, [1993,eng] 48-880
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] 48-5181
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] 48-387
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Quantifying global warming from the retreat of glaciers. Oerlemans, J., [1994,eng] 48-3302
Rational use of nature in the cryolithozone; collected scientific papers. Balobaev, V.T., ed, [1992,rus] 48-4772
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Retreat of alpine glaciers and the global greenhouse effect. Haeberli, W., [1994,ger] 48-5099
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] 48-1787
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] 48-1790
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Terrestrial component of the cryosphere. Mel'nikov, P.A., et al, [1993,eng] 48-2705
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894
U.S. arctic research in a technological age. Johnson, P.L., [1992,eng] 48-2041
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] 48-3161
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935

Glossaries
See [also]: Dictionaries

Gold
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] 48-476
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517

Gough Island
Trends in total ozone over southern African stations between 1979 and 1991. Kalicharran, S., et al, [1993,eng] 48-4390

Grain size
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] 48-2871
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia. McKeown, S., et al, [1994,eng] 48-3388
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] 48-1750
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
See [also]: Ice crystal size

Grasses
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Degradation and protection of grassland on the Qinghai-Tibet Plateau. Yang, D.G., [1992,eng] 48-4411
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et al, [1993,eng] 48-3936
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Promoting late-fall establishment of tall fescue with soil covers. Palazzo, A.J., et al, [1993,eng] 48-3490
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] 48-3609

Graupel
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
See [also]: Snow pellets

Gravel
How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] 48-5304

Gravity
Arctic Ocean gravity field derived from ERS-1 satellite altimetry. Laxon, S., et al, [1994,eng] 48-5107
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455

Gravity anomalies
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445

Gravity waves
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
Response of distinct ice floes to ocean gravity waves. Løset, S., et al, [1994,eng] 48-5563
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510

Great Lakes
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall in the lee of Lakes Erie and Ontario. Leathers, D.J., et al, [1993,eng] 48-2960
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835

Greenhouse effect
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] 48-4643
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate change and methane. Nisbet, E.G., [1990,eng] 48-1812
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
End of the ice age. Nisbet, E.G., [1990,eng] 48-1747
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] 48-2036
Global warming on trial. Broecker, W.S., [1992,eng] 48-1611
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] 48-2035
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] 48-1564
Ice and climate studies. Oerlemans, J., [1989,eng] 48-223
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] 48-2040
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994

Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al. [1993,eng] 48-1898
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606

Greenland
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] 48-4654
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Basal boundary conditions at the Greenland Ice Sheet margin. Souchez, R., et al, [1993,eng] 48-41
Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2. Mai, H.N., et al, [1994,eng] 48-3958
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate history of the last 150,000 years from Greenland ice cores. Moore, J.C., [1994,eng] 48-5569
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] 48-4200
Crash landings in Greenland—1. Operation Bolero. Ancker, P.E., [1980,dan] 48-2649
Crash landings in Greenland—2. The white wilderness. Ancker, P.E., [1980,dan] 48-2650
Crash landings in Greenland—4. Traces obliterated. Ancker, P.E., [1986,dan] 48-2652
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Dating ice cores. Hammer, C.U., et al, [1993,eng] 48-1122
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Development of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5329
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Drought in Greenland?. Jezek, K.C., [1993,eng] 48-1120
Dry coastal ecosystems of Greenland. Daniels, F.J.A., et al, [1993,eng] 48-1125
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores. Taylor, K.C., et al, [1993,eng] 48-1899
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland. Schwander, J., et al, [1994,eng] 48-5335
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] 48-4485
Gravitational separation in polar firn [and response]. Craig, H., et al, [1993,eng] 48-1902
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] 48-1345
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
GRIP deep drilling camp. Gundestrup, N.S., et al, [1994,eng] 48-5362
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Ice core drilling in central Greenland. Moore, J.C., [1993,eng] 48-3322
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] 48-5380
Icebound curiosities of aviation history. Ancker, P.E., [1981,dan] 48-2651
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Isotope shifts reflect Greenland moisture source changes. Charles, C.D., et al, [1994,eng] 48-2667
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] 48-84
Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Low power diamond rock coring parameters. Wang, Z.W., et al, [1994,eng] 48-5336
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] 48-81
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia. Bursik, M., et al, [1993,eng] 48-4217
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
New improved version of the ISTUK ice core drill. Johnsen, S.J., et al, [1994,eng] 48-5327
New short borehole logging tool. Hansen, B.L., et al, [1994,eng] 48-5348
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Oil spill simulations as a contingency planning tool offshore West Greenland. Christensen, F.T., et al, [1993,eng] 48-158
Operational considerations of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5330
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] 48-1861
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Permafrost studies in Greenland. Mai, H., et al, [1993,eng] 48-5214
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-1716
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512
Radiometric derivations of Green and ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation. Weaver, A.J., et al, [1994,eng] 48-2913
Sea, ice and rock: sailing and climbing above the Arctic Circle. Bonington, C., et al, [1993,eng] 48-1931
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Seven million years of glaciation in Greenland. Larsen, H.C., et al, [1994,eng] 48-3942
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Staggering through the ice ages. Monastersky, R., [1994,eng] 48-5121
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Synchronous changes in atmospheric CH4 and Greenland climate between 40 and 8 kyr bp. Chappellaz, J.A., et al, [1993,eng] 48-1668
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
UCPH borehole logger. Gundestrup, N.S., et al, [1994,eng] 48-5349
Unusual radar echoes from the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-538
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2561
Where does all the Cs and Sr in Greenland waters come from. Dahlgaard, H., [1993,eng] 48-4525

—Dye 3
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] 48-3891
Dye-3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] 48-3885
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890

—Nordvestø
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126

—Russell Glacier
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] 48-3597

—Scoresby Sound
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266

—Site-J
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948

—Sönde Strömfjord
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059

—Søndre Strømfjord
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513

—Storstrømmen
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518

—Summit
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] 48-1233
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915

—Thule Air Base
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] 48-3975

Greenland Ice Shelf
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean. Cochran, J.K., et al, [1993,eng] 48-4543

Greenland Sea
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
CO_2 uptake in the Nordic seas. Nes, A., et al, [1992,eng] 48-2905

Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Features of the variations in total ozone over the North Atlantic in summer. Dolgin, M.I., et al, [1993,rus] 48-2489
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] 48-1781
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] 48-2904
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] 48-2897
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] 48-1815
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] 48-5123
Nested grid sea ice modelling. Christensen, F.T., et al, [1993,eng] 48-165
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453
Optical measurements. Hökedal, J., et al, [1992,eng] 48-2906
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] 48-4725
Probable deep winter convection in Fram Strait. Bogorodskiĭ, P.V., et al, [1992,eng] 48-1767
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] 48-3461
Radiation and eddy flux experiment 1993 *(REFLEX II)*. Kottmeier, C., et al, [1994,eng] 48-3928
Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] 48-3304
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] 48-541
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea. Anokhin, V.N., et al, [1992,rus] 48-2742
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Where does all the Cs and Sr in Greenland waters come from. Dahlgaard, H., [1993,eng] 48-4525

Ground based smoke generators
See [also]: Smoke generators

Ground effect machines
See [also]: Air cushion vehicles

Ground freezing
See [also]: Soil freezing

Ground ice
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Circumarctic map of permafrost and ground ice conditions. Heginbottom, J.A., et al, [1993,eng] 48-5213
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] 48-692
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] 48-531
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] 48-396
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
Origin of dislocations in frozen sediments of the Yamal Peninsula. Velikotskiĭ, M.A., [1992,rus] 48-1394
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] 48-4394
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] 48-5223
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] 48-4128
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Preliminary note on the glaciological phenomenon of the Cave of Fros' (Mt. Aetna). Marino, A., [1993,ita] 48-4105
Procedures for building open irrigation channels with a high ground ice level. Ugarov, I.S., [1992,rus] 48-4787
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] 48-5224
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] 48-533
Winter testing for permafrost identification. Guglielmin, M., et al, [1993,ita] 48-1133
See [also]: Ice lenses; Ice wedges

Ground temperature
See [also]: Soil temperature

Ground thawing
Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Analysis of permafrost soil reduction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway. Wang, S.L., et al, [1993,chi] 48-4589
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] 48-436
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] 48-4169
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] 48-525
Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] 48-493
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] 48-529
Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] 48-454
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Formation and calculation of cold region runoff in the Qilian mountains. Yang, Z.H., [1990,eng] 48-1597
Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] 48-409
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] 48-296
How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] 48-5304
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] 48-5191
Long-term shear strength at frozen/unfrozen transition zone. Ding, J.K., et al, [1992,chi] 48-1407
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] 48-534
Permafrost change for asphalt pavement along Qinghai-Xizang highway. Wang, S.L., et al, [1993,eng] 48-5245
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] 48-387
Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskiĭ, V.D., et al, [1994,eng] 48-2805
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-5180
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] 48-5183
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] 48-516
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-889
Thaw-consolidation of unsaturated frozen soil. Yang, L.F., et al, [1993,eng] 48-5257
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska. Bilello, M.A., et al, [1993,eng] 48-882
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Thermophysical conditions of frozen soils with regard to their sagging after thawing. Gavril'ev, R.I., [1992,rus] 48-4803
Unfrozen water content and freeze-thaw in saline soil. Zhang, L.X., et al, [1993,chi] 48-1434
Viscosity measurements on very wet soils. Shoop, S.A., [1993,eng] 48-1174
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] 48-1104

Ground water
Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102
Casing materials for ground water monitoring wells. Parker, L.V., et al, [1994,eng] 48-5413
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] 48-3825
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Dynamic study of common well screen materials. Hewitt, A.D., [1993,eng] 48-719
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Effects of groundwater samplers on water quality: a literature review. Parker, L.V., [1993,eng] 48-2608
Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska. Munter, J.A., [1994,eng] 48-5101
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138
Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] 48-1599

Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] 48-2378
Groundwater temperatures during the winter in a forested basin. Calkins, D.J., [1993,eng] 48-2923
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] 48-1241
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] 48-5297
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-1092
Permafrost and ground water in the Greater Khingan Range. Yuan, H.Y., et al, [1993,chi] 48-4490
Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] 48-355
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Questions on the preservation of frozen straw-colored soils. Sleptsov, V.I., et al, [1988,rus] 48-911
Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] 48-4798
Water resources data for Alaska, water year 1992. Kernnitz, R.T., et al, [1993,eng] 48-1462
See [also]: Soil water; Subpermafrost ground water; Suprapermafrost ground water; Water table

Grounded ice
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
In situ investigations of the shore-ice-grounded hummock interaction. Sukhorukov, K.K., et al, [1994,eng] 48-5582
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Strength parameters of hummocks: field observations and laboratory tests. Truskov, P.A., et al, [1993,eng] 48-1033
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541

Grouting
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] 48-1102
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500

Growth
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] 48-961
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] 48-5421
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] 48-4060
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] 48-5125
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] 48-2156
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] 48-1115
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939
Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] 48-4809
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Seed survival in a high alpine block field. Moen, J., [1993,eng] 48-938
Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] 48-3345
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] 48-940
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] 48-2348
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Subnivean development of a snowbank geophyte. Hamerlynch, E.P., et al, [1994,eng] 48-3503
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134

Gullies
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849

Hail
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757

Hail clouds
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466

Hail prevention
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743

Hail protection
See [also]: Hail prevention

Hail suppression
See [also]: Hail prevention

Hailstone electrification
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691

Hailstone growth
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753

Hailstone structure
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887

Hailstones
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] 48-1682
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] 48-1679

Handbooks
See [also]: Manuals

Harbors
See [also]: Ports

Hardness
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
See [also]: Ice hardness; Snow hardness

Hardness tests
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] 48-4909

Haze
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Recent changes in arctic temperature inversions. Bradley, R.S., et al, [1993,eng] 48-1469
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Health
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] 48-4961
Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] 48-4965
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms. Hartwell, S.I., et al, [1993,eng] 48-1846

Heat
See [also]: Latent heat

Heat balance
1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] 48-399
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Calculation of snowmelt. Shutov, V.A., [1993,eng] 48-5296
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] 48-3208
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] 48-2827
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Hydro-meteorological automatic observation system and research plan. Ishikawa, N., et al, [1992,jpn] 48-3218
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] 48-2054
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] 48-3553
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] 48-988
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
New method for estimating the heat effectiveness of a building in extreme climatic conditions. Brodach, M.M., et al, [1994,eng] 48-3874

Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1153
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Science of snow and ice (7). Inoue, M., [1987,jpn] 48-268
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Snow cover and climate. Cohen, J., [1994,eng] 48-4768
Snow cover effect in spring. Groisman, P.IA., et al, [1994,eng] 48-2553
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] 48-983
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Thin ice cap instability (TICI). Matteucci, G., [1993,eng] 48-2678
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
See [also]: Glacier heat balance; Permafrost heat balance

Heat capacity
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818

Heat conductivity
See [also]: Thermal conductivity

Heat flux
Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] 48-487
Air-ice interaction. Gao, D.Y., et al, [1992,eng] 48-2899
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-3257
Archived time-series of Atlantic Ocean meteorological variables and surface fluxes. Bunker, A.F., et al, [1979,eng] 48-3699
Atlas of the energy balance of the northern polar area. Girdiuk, G.V., et al, [1992,rus] 48-1479
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Effects of a porous medium in a flow passage with miter bend. Ichimiya, K., et al, [1993,eng] 48-869
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] 48-4199
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Observation of the heat flux between atmosphere and ocean with remote sensing (I). Sasaki, Y., et al, [1990,eng] 48-4682
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Turbulent mixing under drifting pack ice in the Weddell Sea. McPhee, M.G., et al, [1994,eng] 48-2554
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
See [also]: Heat transfer; Ice heat flux; Snow heat flux

Heat loss
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Field measurement of heat losses from hot water district heating systems. Phetteplace, G., [1993,eng] 48-2068
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Heat losses from operating hot water district heating systems. Phetteplace, G., [1993,eng] 48-2069
Heat transfer in translucent enclosed structures. Drozdov, V.A., et al, [1986,rus] 48-1288
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Wind-induced heat transfer through permeable clothing. Kind, R.J., et al, [1993,eng] 48-874

Heat measurement
See [also]: Temperature measurement

Heat pipes
Air conditioning system with a conduit for deicing driveways. Albertson, M.E., et al, [1992,eng] 48-2241
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Field measurement of heat losses from hot water district heating systems. Phetteplace, G., [1993,eng] 48-2068
Freeze/thaw characteristics of room temperature heat pipes. Ochterbeck, J.M., [1994,eng] 48-3555
Heat losses from operating hot water district heating systems. Phetteplace, G., [1993,eng] 48-2069
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] 48-567
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517
Recovering heat in manufacturing facilities with energy capacious technology. Petersons, G., [1994,eng] 48-3854
Road snow melting by solar energy and heat pipes. Konagai, N., [1986,jpn] 48-264
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [1993,eng] 48-1195
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] 48-860
Thermosyphon condensate return device. DenHartog, S.L., et al, [1990,eng] 48-2261
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892

Heat pumps
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] 48-3431
Burner-assisted residential air-source heat pump. Jones, P.R., et al, [1994,eng] 48-3852
Development and regional implementation of snow electric power generation systems. Tsushima, K., [1986,jpn] 48-29
Development trends in snow melting devices using heat pumps. Shinojima, K., [1988,jpn] 48-658
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Gas engine driven heat pump: an excellent alternative in cold climate. Dentice d'Accadia, M., et al, [1994,eng] 48-3853
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152

Heat recovery
Automobile heater using a latent heat storage device. Tsantis, A.P., et al, [1994,eng] 48-3094
Burner-assisted residential air-source heat pump. Jones, P.R., et al, [1994,eng] 48-3852
Cold storage system. Furuhama, K., [1991,eng] 48-2232
Gas engine driven heat pump: an excellent alternative in cold climate. Dentice d'Accadia, M., et al, [1994,eng] 48-3853
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Heat recovery ventilator operating under frost conditions. Mercadier, Y., et al, [1993,eng] 48-870
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Recovering heat in manufacturing facilities with energy capacious technology. Petersons, G., [1994,eng] 48-3854
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [1993,eng] 48-1195
Special demands for ventilation system and product standards in cold climates. Railio, J., [1994,eng] 48-3858
Thermal design for annular shaped phase-change storage systems. Prasad, A., et al, [1993,eng] 48-893
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] 48-568

Heat sinks
Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] 48-1520
Development and regional implementation of snow electric power generation systems. Tsushima, K., [1986,jpn] 48-29
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] 48-3365

Heat transfer
Air conditioning system with a conduit for deicing driveways. Albertson, M.E., et al, [1992,eng] 48-2241
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Basal melting of antarctic ice shelves. Minale, M., et al, [1993,eng] 48-2410
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] 48-3431
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Characteristics of heat exchanger for melting of piled snow. Aoki, K., et al, [1993,eng] 48-876
Cold storage system. Furuhama, K., [1991,eng] 48-2232
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskii, V.N., [1982,rus] 48-1287
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] 48-3318
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Effects of a porous medium in a flow passage with miter bend. Ichimiya, K., et al, [1993,eng] 48-869
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] 48-4814
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone. Zviagin, V.V., et al, [1993,eng] 48-2611
Experimental study on melting process of ice containing conductive copper solids. Hirasawa, Y., et al, [1993,eng] 48-894
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Field measurement of heat losses from hot water district heating systems. Phetteplace, G., [1993,eng] 48-2068
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Freeze/thaw characteristics of room temperature heat pipes. Ochterbeck, J.M., [1994,eng] 48-3555
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] 48-2155
Frost free heat exchanger. Roberts, F.J., et al, [1989,eng] 48-4084
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Heat losses from operating hot water district heating systems. Phetteplace, G., [1993,eng] 48-2069
Heat recovery ventilator operating under frost conditions. Mercadier, Y., et al, [1993,eng] 48-870
Heat transfer in translucent enclosed structures. Drozdov, V.A., et al, [1986,rus] 48-1288
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] 48-2297
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] 48-2506
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660

Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Melting at the leading edge of a river ice cover. Zhang, X.T., [1992,eng] 48-804
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] 48-2342
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] 48-2493
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] 48-294
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896
Recovering heat in manufacturing facilities with energy capacious technology. Petersons, G., [1994,eng] 48-3854
Side discharge anti-ice manifold. Miller, S.M., [1993,eng] 48-1654
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Some topics on melting heat transfer problems. Fukusako, S., et al, [1993,eng] 48-858
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-889
Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] 48-872
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] 48-761
Thermal design for annular shaped phase-change storage systems. Prasad, A., et al, [1993,eng] 48-893
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Thermosyphon condensate return device. DenHartog, S.L., et al, [1990,eng] 48-2261
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892
Twin rinse columns for freeze concentration of rinsable concentrates. Heiland, W.K., et al, [1991,eng] 48-2224
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] 48-5211
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815
Wind-induced heat transfer through permeable clothing. Kind, R.J., et al, [1993,eng] 48-874
See [also]: Heat flux; Permafrost heat transfer

Heat transfer coefficient
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] 48-4063
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] 48-2598
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] 48-3724
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] 48-2806
Thermophysical conditions of frozen soils with regard to their sagging after thawing. Gavril'ev, R.I., [1992,rus] 48-4803
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152

Heat transmission
Field measurement of heat losses from hot water district heating systems. Phetteplace, G., [1993,eng] 48-2068
Heat losses from operating hot water district heating systems. Phetteplace, G., [1993,eng] 48-2069
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846

Heating
Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Aerodynamic protection of premises against cold through apertures. Shilkrot, E.O., et al, [1994,eng] 48-3865
Aircraft deicer system. Manda, L.J., et al, [1993,eng] 48-1940
Anti-icing valve. Norris, R.M., et al, [1989,eng] 48-4363
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Cold climate HVAC '94. International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994, [1994,eng] 48-3841
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Construction heat engineering. Russia. Gosudarstvennyi komitet po delam stroitel'stva, [1986,rus] 48-1286
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskii, V.N., [1982,rus] 48-1287
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Energy efficiency in heating and ventilating. Naumov, A.L., et al, [1994,eng] 48-3863
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Heating and ventilation systems for industrial buildings. Finkel'shtein, S.M., [1994,eng] 48-3861
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] 48-2213
HVAC technology and trade in Russia and other East European countries. Tabunshchikov, IU.A., [1994,eng] 48-3855
Method and apparatus for thermal control of automotive components. Inkmann, M.S., et al, [1992,eng] 48-2240
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
Operability: the first step to mobility. Diemand, D., [1993,eng] 48-1166
Reduction of the energy consumption in air curtains. Nikulin, M.V., et al, [1994,eng] 48-3864
Simplified ventilation system Thermonet. Hyvärinen, K., [1994,eng] 48-3872
Solar energy potentialities and prospects in Antarctica. Sheinstein, A.S., et al, [1993,rus] 48-3568
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] 48-4957
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Tariff policy in district heating. Jauhiainen, I., [1994,eng] 48-3156
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846
Thermostats in an insulated residence with passive solar heating. Berglund, L.G., et al, [1994,eng] 48-3879
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892
Variation of energy consumption in dwellings due to climate, building and inhabitants. Pettersen, T.D., [1994,eng] 48-3871
See [also]: Electric heating; Pipeline heating; Radiant heating

Heaving
See [also]: Frost heave

Heavy water
Ancient climate from deuterium content of water in volcanic glass. Friedman, I., et al, [1993,eng] 48-1500
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] 48-2204
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] 48-2534

Hedges
See [also]: Snow hedges

Height
See [also]: Altitude

Height finding
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] 48-4831
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] 48-3435
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] 48-3585
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Arctic Ocean gravity field derived from ERS-1 satellite altimetry. Laxon, S., et al, [1994,eng] 48-5107
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] 48-3594
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Design of a scanning, spaceborne radar altimeter for measuring polar ice. Jensen, J.R., et al, [1993,eng] 48-1722
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] 48-4037
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] 48-3441
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] 48-3589
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Interferometric SAR data analysis on Ronne Ice Shelf. Reinhold, A., et al, [1992,eng] 48-249
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] 48-5423
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] 48-3436
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] 48-1317
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] 48-1322
Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] 48-1305
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Sea ice altimeter processing scheme at the EODC. Laxon, S.W., [1994,eng] 48-4036
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Subsurface scattering and ice sheet altimetry. Davis, C.H., [1993,eng] 48-1709
See [also]: Cloud height indicators

Helicopters
Cold weather demonstration of the AH-64A helicopter. Final report. Riley, M.N., et al, [1993,eng] 48-1129
Experimental investigation of passive infrared ice detection for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-4871
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Helicopter icing in VMC below low stratus clouds. Fuchs, W., [1993,eng] 48-4340
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Helicopter rotor performance in icing conditions. Britton, R.K., [1992,eng] 48-4857
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295
Icing studies in an aerospace altitude test facility. Osborn, A.R., et al, [1991,eng] 48-4736
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] 48-4172
Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-3688
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] 48-4887

Passive infrared ice detection technique for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-1959
Pneumatic boot for helicopter rotor deicing. Blaha, B.J., et al, [1980,eng] 48-1146
Review of icing research at the Royal Aerospace Establishment. Gent, R.W., [1991,eng] 48-3689
Rotorcraft aviation icing research requirements: research review and recommendations. Peterson, A.A., et al, [1981,eng] 48-1145
System for artificially triggering snow avalanches from helicopter. Wendl, F., [1993,eng] 48-4435

Heterogeneous nucleation
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] 48-5497
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] 48-3059
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] 48-2477
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] 48-4717
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] 48-3730
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] 48-2580
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] 48-339
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
Nucleation of ice. Vali, G., [1991,eng] 48-1119
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of North Polar atmospheric chemistry. Douglass, A., et al, [1993,eng] 48-628
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] 48-5492
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

High pressure ice
Evidence for two kinds of hydrogen bond in ice. Li, J.C., et al, [1993,eng] 48-543
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] 48-4718
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] 48-5385
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] 48-5021

High pressure tests
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] 48-5385
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] 48-3939
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] 48-5021

Highway planning
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] 48-1974
Applications of data base technology in frozen soil researches. Xia, Z.Y., [1993,chi] 48-4397
Applications of recycled plastics for roadside safety hardware. Dutta, P.K., et al, [1994,eng] 48-3268
Composites for roadside hardware. Dutta, P.K., et al, [1993,eng] 48-2094
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,chi] 48-4502
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,eng] 48-5261
Engineering geological survey and distribution of permafrost along Qingkang Highway. Zhu, L.N., et al, [1993,chi] 48-1454
Highway operations: progress and products update. Smith, K.H., et al, [1991,eng] 48-3705
Making the best of natural conditions, European and American snow countermeasures. Ishimoto, K., [1989,jpn] 48-712
Prospects for measures to safeguard road traffic in winter. Wada, J., [1987,jpn] 48-270
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393
Regional economy along the Okhotsk Sea in Hokkaido. Furuya, A., et al, [1994,eng] 48-3992
Repair of pavement distress in permafrost. Luo, W.Q., [1993,chi] 48-4504
Report on historical changes of road snow removal technique in Akita Prefecture. Ito, T., et al, [1993,jpn] 48-1970
Road design and renovations of the north slope in Da Hinggan Ling. Luo, W.Q., [1993,eng] 48-5227
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Studies on the driver's visual point. Chapter 8. Visual behavior of drivers in blowing snow. Hagiwara, T., [1991,jpn] 48-4238
Tenth Five-Year Plan for road maintenance. Ando, A., [1988,jpn] 48-575

Highways
See [also]: Roads

Himalaya Mountains
Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] 48-2773
Himalayas: a third polar region. Bahadur, J., [1993,eng] 48-2784
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] 48-2799
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] 48-2770
Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] 48-2775

Hindu Kush
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] 48-2770

History
Arctic exploration and development, c. 500 B.C. to 1915: an encyclopedia. Holland, C., [1994,eng] 48-3337
Arctic yesterday and today. Kiselev, IU.G., et al, [1992,rus] 48-2741
Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed. et al, [1992,eng] 48-2694
Canadian Habbakuk Project; a project of the National Research Council of Canada. Gold, L.W., [1990,eng] 48-311
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Crash landings in Greenland—1. Operation Bolero. Ancker, P.E., [1980,dan] 48-2649
Crash landings in Greenland—2. The white wilderness. Ancker, P.E., [1980,dan] 48-2650
Crash landings in Greenland—4. Traces obliterated. Ancker, P.E., [1986,dan] 48-2652
CRREL retrospective 1986-1991. U.S. Army Cold Regions Research and Engineering Laboratory, [1992,eng] 48-2132
CRREL's first 25 years, 1961-1986. U.S. Army Cold Regions Research and Engineering Laboratory, [1986,eng] 48-2070
Death in the Arctic. Ranford, B., [1993,eng] 48-1647
Escape from the Arctic. Alekseev-Gai, A., [1993,rus] 48-5399
Evidence from Hudson Bay region of severe cold in the summer of 1816. Catchpole, A.J.W., [1985,eng] 48-2722
Geology of Mount Murphy volcano. LeMasurier, W.E., et al, [1994,eng] 48-3299
High latitudes: a history of Swedish polar travels and research. Liljequist, G.H., [1993,eng] 48-1811
History of research on Novaya Zemlya. Nikandrov, O.M., et al, [1993,rus] 48-1906
History of snow sciences in North America. Mergen, B., [1993,eng] 48-2942
Hydrographers get to know icebergs. Kazanskiĭ, M.M., [1993,rus] 48-1905
Icebound curiosities of aviation history. Ancker, P.E., [1981,dan] 48-2651
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] 48-2723
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
Mountain and arctic warfare from Alexander to Afghanistan. Gregory, B., [1989,eng] 48-1932
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
On winter warfare. Swinzow, G.K., [1993,eng] 48-1003
Problem of taiga origin. History of the subject. Prilepskiĭ, N.G., [1993,rus] 48-5272
River ice investigations in Norwegian watercourses—a review. Asvall, R.P., [1994,eng] 48-5536
Russian discoveries and investigations in the Arctic: first half of the 19th century. Pasetskiĭ, V.M., [1984,rus] 48-1265
Sea ice and climatic change in the Canadian Arctic since 1800. Dunbar, M., [1985,eng] 48-2721
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York. Sykes, R.B., [1993,eng] 48-2959
Snow and ice in the publications of the Canadian Institute, 1852-1914. Adams, P., [1993,eng] 48-2943
Soldiers on skis: a pictorial memoir of the 10th Mountain Division. Whitlock, F., [1992,eng] 48-1929
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269

Hoarfrost
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109

Effects of various factors on rime icing; water vapor content. Uchida, T., et al, [1993,jpn] 48-3169
Heat recovery ventilator operating under frost conditions. Mercadier, Y., et al, [1993,eng] 48-870
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
See [also]: Depth hoar

Holography
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] 48-1713
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368

Homogeneous nucleation
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Freezing of stratospheric aerosol dr[illegible]plets. Luo, B.P., et al, [1994,eng] 48-5499
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] 48-4441
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Nucleation of ice. Vali, G., [1991,eng] 48-1119
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826

Hot springs
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] 48-568

Houses
Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Burner-assisted residential air-source heat pump. Jones, P.R., et al, [1994,eng] 48-3852
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Design of terraced houses for cold climate. Kalabin, A.V., [1994,eng] 48-3880
External design of houses in a cold and snow-fall region in the Tohoku District. Hirai, K., [1993,jpn] 48-1982
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Investigation of the roof shape and roofing materials of wooden houses in Sapporo. Hoshino, M., et al, [1993,jpn] 48-1990
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
New heating concept for Inuit housing. Lim, H.T., [1979,eng] 48-4143
Positioning of houses on lots in snow districts. Fukazawa, D., [1993,jpn] 48-1985
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Thermostats in an insulated residence with passive solar heating. Berglund, L.G., et al, [1994,eng] 48-3879
Two similar insulated residences at 61 and 41N latitude. Berglund, H.N., et al, [1994,eng] 48-3868
Usable space in houses with and without raised floors. Numano, N., [1993,jpn] 48-1984
Wooden bracing and wall length for a snow-proof house. Uchiyama, K., et al, [1993,jpn] 48-1998

Hovercraft
See [also]: Air cushion vehicles

Human factors
Alpine glaciers—memories and mirrors of civilization and a mountain environment. Vivian, R., [1989,fre] 48-1819
Climate change and human influences on Qinghai-Xizang Plateau. Yang, L.Y., [1992,chi] 48-1487
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Effect of anthropogenic factors on the intensity of cryogenic processes. Bosikov, N.P., [1988,rus] 48-909
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] 48-387
Pollution of fallen snow in urban areas. Tachibana, H., et al, [1994,eng] 48-3966
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] 48-4961
Snow removal options based on inhabitant preferences. Miyakoshi, K., et al, [1993,eng] 48-2849
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298
Visibility reduction caused by snow and a driver's eye movement. Ishimoto, K., et al, [1993,jpn] 48-1967

Human factors engineering
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] 48-4967
GRIP deep drilling camp. Gundestrup, N.S., et al, [1994,eng] 48-5362
Pedestrian anti-skid winter footwear. Gard, G., et al, [1994,eng] 48-3947
Pedestrian space in snowy country. Nishiue, H., [1986,jpn] 48-28
Pilot program to provide pedestrian space in winter. Suzuki, A., [1989,jpn] 48-699
Qualities of home and work place achievable in intelligent buildings in cold climates. Kainlauri, E.O., [1994,eng] 48-3878
Review of footwear for cold/wet scenarios. Part I: the boot. Dyck, W., [1992,eng] 48-4750
Snowplow truckcab ergonomics task force report. Peterson, D., [1993,eng] 48-4901
Studies on the driver's visual point. Chapter 8. Visual behavior of drivers in blowing snow. Hagiwara, T., [1991,jpn] 48-4238
Thermal protectiveness of electrically heated clothing and boots. Hickey, C.A., Jr., et al, [1993,eng] 48-4753
Viewpoint on the sidewalk snow removal plan in Takikawa City. Goto, N., [1989,jpn] 48-700

Humidity
Climates of the world. Martyn, D., [1992,eng] 48-2709
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] 48-4104
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Polar regions surface temperatures from Nimbus 7. Comiso, J.C., [1994,eng] 48-3305
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391

Hummocks
Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Determination of the amount of carbon in highly cryoturbated soils. Kimble, J.M., et al, [1993,eng] 48-2302
Ice cover of the Arctic basin. Romanov, I.P., [1992,rus] 48-4148
Method for evaluation of first-year ice hummock strength. Surkov, G.A., et al, [1993,eng] 48-4336
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] 48-5190
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996
Strength parameters of hummocks: field observations and laboratory tests. Truskov, P.A., et al, [1993,eng] 48-1033
See [also]: Frost mounds; Pingos

Hungary
Hungarian icing activity survey. Krómer, I., [1993,eng] 48-808
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] 48-810
Observation of ice load of transmission line in Hungary. Csomor, M., et al, [1993,eng] 48-824
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] 48-809

Hydrates
3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] 48-2317
Air clathrate hydrates in antarctic ice. Craig, H., et al, [1993,eng] 48-3943
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Climate change and methane. Nisbet, E.G., [1990,eng] 48-1812
Dissolution of cementing ice and gas hydrates in permafrost rocks. Mikhailov, V.A., [1994,eng] 48-3976
End of the ice age. Nisbet, E.G., [1990,eng] 48-1747
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] 48-3618
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] 48-3219
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Glaciological survey of clathrate hydrates. Hondoh, T., [1993,jpn] 48-3176
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] 48-1612
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1992,chi] 48-1421
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Problems in the stability of gas hydrate deposits in the cryolithozone. Ershov, E.D., et al, [1992,rus] 48-1391
Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] 48-1897
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] 48-2591
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261

Hydraulic fill
See [also]: Earth fills; Rock fills

Hydraulic jets
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] 48-525
Experimental study of snow removing channel system driven by water jets. Kobayashi, T., et al, [1993,jpn] 48-3189
Ice pellets and decontamination. Manificat, A., et al, [1993,fre] 48-3280
Reaching towards overcoming snow in Arai City. Goto, K., [1986,jpn] 48-25

Hydraulic structures
Construction and methods of erecting hydrotechnical structures in the northern zone. Erakhtin, B.M., [1993,rus] 48-1522
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
Hydroelectric station with inflatable hoses for ice control. Kashevarov, IU.B., [1992,eng] 48-5532
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Laying arctic gas pipeline across Baidaratskaya Gulf. Shakirov, R.M., [1993,eng] 48-4314
Permafrost studies in Greenland. Mai, H., et al, [1993,eng] 48-5214
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] 48-5239
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] 48-3406
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] 48-4303
Structures to protect river banks against ice erosion. Androshchuk, V.V., et al, [1992,eng] 48-5518
Study and development of the techniques against frost damage of hydraulic structures. Xu, B.M., et al, [1993,eng] 48-5254
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] 48-420
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Study on preventing frost heave of the shaft-type energy dissipator. Wang, S.R., [1993,eng] 48-5246
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836
See [also]: Dams; Docks; Locks (waterways); Offshore

structures; Piers; Wharves
Hydraulics
Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] **48-4959**
Controller valve for deicer. Hlavac, K.A., [1992,eng] **48-1368**
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] **48-2828**
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] **48-3837**
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] **48-5166**
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] **48-5268**
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] **48-1559**
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] **48-1544**
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] **48-5140**
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] **48-2396**
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] **48-4247**
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] **48-1878**
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] **48-1242**
Hydrocarbons
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] **48-2584**
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] **48-4630**
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] **48-4025**
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] **48-3257**
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] **48-2461**
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] **48-3891**
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] **48-4654**
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] **48-4623**
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] **48-4044**
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] **48-3385**
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] **48-4624**
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] **48-925**
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] **48-2447**
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] **48-4634**
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] **48-2456**
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] **48-2049**
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] **48-2457**
Halogenated hydrocarbons in polar macroalgae. Laturnus, F., [1993,ger] **48-2243**
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] **48-5010**
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] **48-1241**
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] **48-3231**
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] **48-995**
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] **48-3054**
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] **48-635**
Methanol ice in the protostar GL 2136. Skinner, C.J., et al, [1992,eng] **48-3617**
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] **48-3147**
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] **48-2585**
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] **48-4045**
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] **48-1366**
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] **48-1508**
Russian arctic shelf hydrocarbon development to proceed. George, D., [1993,eng] **48-1017**
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] **48-4614**
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] **48-4155**
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] **48-4954**
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] **48-3911**
Spring biochemical composition of sea ice diatoms in McMurdo Sound. Nichols, D.S., et al, [1993,eng] **48-46**
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] **48-5020**
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] **48-72**
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] **48-4090**
Hydrodynamics
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] **48-4056**
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] **48-1528**
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1983,ger] **48-5311**
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] **48-2693**
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] **48-4323**
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] **48-315**
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] **48-3619**
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] **48-1677**
Open-water resistance and seakeeping characteristics of ships with icebreaking bows. Moton, C.J., [1991,eng] **48-4727**
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] **48-3788**
Snow equation-of-state. Barthel, J.R., [1990,eng] **48-3614**
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] **48-69**
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] **48-3789**
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] **48-3545**
Hydroelectric power
See [also]: Electric power
Hydrogen
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] **48-1837**
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] **48-5032**
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] **48-3541**
Hydrogen bonds
All about ice. Davey, R., et al, [1993,eng] **48-2759**
Anti-icing coating compositions. Murase, H., [1989,eng] **48-1872**
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] **48-1215**
Evidence for two kinds of hydrogen bond in ice. Li, J.C., et al, [1993,eng] **48-543**
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] **48-5383**
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] **48-5384**
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] **48-3762**
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] **48-1612**
Ice-forming properties of organic reagents. IAtsimirskiĭ, V.K., et al, [1989,eng] **48-3748**
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] **48-2594**
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] **48-3499**
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] **48-1757**
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] **48-5385**
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] **48-2092**
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] **48-2204**
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] **48-1917**
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] **48-214**
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] **48-2534**
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] **48-945**
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] **48-5021**
Hydrogen ion concentration
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] **48-1823**
Hydrogeochemistry
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] **48-3556**
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] **48-944**
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] **48-4120**
Casing materials for ground water monitoring wells. Parker, L.V., et al, [1994,eng] **48-5413**
Chemical composition of snow cover on the western Swiss Alps. Parriaux, A., et al, [1990,eng] **48-1594**
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] **48-3583**
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] **48-1492**
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] **48-1493**
Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] **48-1490**
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] **48-1491**
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] **48-3621**
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] **48-5117**
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] **48-1138**
Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] **48-1599**
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] **48-3531**
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] **48-3526**
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] **48-3258**
Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado. Peters, N.E., et al, [1993,eng] **48-2962**
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland. Brown, G.H., et al, [1990,eng] **48-1589**
Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] **48-2949**
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] **48-3008**
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] **48-4973**
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] **48-2095**
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] **48-1610**
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] **48-986**
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] **48-942**
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] **48-5039**
Snowmelt and water quality changes in small rivers. Symader, W., et al, [1993,eng] **48-1776**
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] **48-1774**
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] **48-3210**
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] **48-2950**
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] **48-2802**
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] **48-2329**
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] **48-4259**
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] **48-318**
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] **48-4061**
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff. Tranter, M., et al, [1993,eng] **48-1775**
Water masses and circulation in the Eurasian Basin. Anderson, L.G., et al, [1994,eng] **48-4222**
Hydrogeology
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] **48-419**
Hydrogeology and engineering geology of the Kirghiz SSR. Talipov, M.A., ed, [1990,rus] **48-1236**
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] **48-523**
Mining impact on permafrost hydrology. Klimovskiĭ, I.V., et al, [1993,eng] **48-522**
Preliminary engineering-geocryological investigations in the oil and gas bearing regions. Mel'nikov, E.S., et al, [1994,eng] **48-3401**
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] **48-3406**
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] **48-495**
Role of water in the formation of the characteristics of forest soils in northern Tian Shan. Usupaev, Sh.E., [1990,rus] **48-1239**
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] **48-2396**
Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] **48-4798**

Hydrography
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] **48-3944**
Arctic yesterday and today. Kiselev, IU.G., et al, [1992,rus] **48-2741**
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] **48-2008**
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] **48-1279**
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] **48-1615**
Calculation of snowmelt. Shutov, V.A., [1993,eng] **48-5296**
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] **48-4993**
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] **48-2352**
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] **48-2097**
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] **48-3751**
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] **48-979**
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] **48-2458**
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] **48-1616**
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] **48-224**
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] **48-2403**
Hydrograph forecasts for a mountain river in a stochastic form. Mukhin, V.M., [1992,rus] **48-1948**
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] **48-3766**
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] **48-799**
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] **48-2904**
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands). Klöser, H., et al, [1994,eng] **48-4983**
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] **48-4973**
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] **48-5157**
Modeling surface flow hydrography of a spring flood in small rivers. Vodogretskiĭ, V.V., et al, [1992,rus] **48-184**
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Omstedt, A., et al, [1994,eng] **48-4413**
Models of boundary value problems pertaining to the Weddell Sea. Fettweis, M., et al, [1990,eng] **48-777**
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] **48-5297**
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] **48-2023**
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] **48-3926**
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] **48-1752**
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] **48-1151**
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] **48-4052**
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] **48-4949**
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] **48-2211**
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] **48-1822**

Hydroinsulation
See [also]: Waterproofing

Hydrologic cycle
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] **48-1154**
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] **48-944**
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] **48-1152**
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] **48-2054**
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] **48-5041**
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] **48-5369**
Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] **48-319**
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] **48-360**
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] **48-4973**
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] **48-1610**
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] **48-4650**
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] **48-5297**
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] **48-4208**
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] **48-2034**
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] **48-4192**
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] **48-4177**
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation. Weaver, A.J., et al, [1994,eng] **48-2913**
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] **48-1618**
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] **48-5044**
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] **48-4189**
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] **48-410**
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] **48-2416**
Water resources, snow and ice. Haefner, H., et al, [1991,eng] **48-4868**

Hydrology
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] **48-2593**
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake. Smith, R.L., et al, [1993,eng] **48-1664**
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] **48-1913**
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] **48-2550**
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] **48-2377**
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] **48-3724**
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] **48-4450**
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] **48-2158**
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone. Vakhnenko, S.V., et al, [1992,rus] **48-186**
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] **48-4528**
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] **48-2770**
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] **48-4123**
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] **48-2567**
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] **48-1766**
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea. Anokhin, V.N., et al, [1992,rus] **48-2742**
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] **48-187**
Water resources data for Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] **48-1462**
See [also]: Glacial hydrology; Permafrost hydrology; Snow hydrology; Surface waters

Hydrometeors
See [also]: Precipitation (meteorology)

Hydrothermal processes
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] **48-3431**
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] **48-3233**
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', L.L., et al, [1992,rus] **48-1912**

Hygrometers
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] **48-1895**
See [also]: Moisture meters

Hygroscopic nuclei
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] **48-1841**

Ice
Calculation of the vapor-saturated liquidus for the NaCl-CO2-H2O system. Barton, P.B., et al, [1993,eng] **48-1769**
Dictionary of snow and ice. Japanese Society of Snow and Ice (Nihon seppyo gakkai), [1990,jpn] **48-755**
See [also]: Amorphous ice; Artificial ice; Bottom ice; Capillary ice; Colored ice; Cubic ice; Dendritic ice; Deuterium oxide ice; Doped ice; Dry ice (trademark); Extraterrestrial ice; Fast ice; Floating ice; Fossil ice; Frazil ice; Glacier ice; Glaciology; Glaze; Ground ice; Grounded ice; High pressure ice; Interstitial ice; Lake ice; Land ice; Pack ice; River ice; Salt ice; Sea ice; Snow ice; Spongy ice; Underwater ice; Vitreous ice; Young ice

Ice accretion
2D and 3D modelling of ice accretion on wires. Porcú, F., et al, [1993,eng] **48-818**
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] **48-851**
Advancements in the LEWICE Ice Accretion Model. Wright, W.B., [1993,eng] **48-4886**
Adverse aerodynamic impact of leading-edge ice buildups. Lynch, F.T., et al, [1991,eng] **48-3691**
Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] **48-3695**
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] **48-3694**
Aerodynamic torque in snow accretion on transmission lines. Poots, G., et al, [1993,eng] **48-819**
AGARD symposium on effects of adverse weather on aerodynamics. Reinmann, J.J., [1991,eng] **48-3683**
Aircraft ground deicing and anti-icing fluids. Louchez, P.R., et al, [1994,eng] **48-3111**
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] **48-3064**
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] **48-856**
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] **48-3964**
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] **48-4735**
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration. Cain, G.E., et al, [1994,eng] **48-3108**
Capacitive ice detector for aircraft. Pruzan, D.A., et al, [1993,eng] **48-2638**
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] **48-5602**
Charge transfer during individual collisions in ice growing by riming. Avila, E.E., et al, [1991,eng] **48-3682**
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] **48-811**
Close-up analysis of aircraft ice accretion. Hansman, R.J., Jr., et al, [1993,eng] **48-4885**
Comparison of selected models for estimating cable icing. McComber, P., et al, [1993,eng] **48-816**
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] **48-1961**
Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] **48-841**
Data analysis of icing measurements in Iceland. Eliasson, Á.J., et al, [1993,eng] **48-845**
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] **48-957**
Deterministic multi-zone ice accretion modeling. Yamaguchi, K., et al, [1991,eng] **48-4872**
Development of a new type of silicone rubber phase spacer. Kato, J., et al, [1993,eng] **48-849**
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] **48-5109**
Effect of density variations in models of rime ice accretion on overhead line conductors. Skelton, L., et al, [1993,eng] **48-820**
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics. Van Hengst, J., et al, [1991,eng] **48-3692**
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] **48-832**
Effect of wing ice contamination on essential flight characteristics. Brumby, R.E., [1991,eng] **48-3685**
Effects of adverse weather on aerodynamics.[1991,eng] **48-3684**
Effects of frost on wing aerodynamics and take-off performance. Kind, R.J., et al, [1991,eng] **48-3687**
Effects of various factors on rime icing: water vapor content. Uchida, T., et al, [1993,jpn] **48-3169**
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] **48-850**
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] **48-821**
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] **48-813**
Experimental investigation of passive infrared ice detection for helicopter applications. Dershowitz, A.L., et al, [1991,eng] **48-4871**
Field data on transmission line icing collected at the Mount Valin test site. Druez, J., et al, [1994,eng] **48-3020**
Field investigation of spray icing on offshore experimental structure. Hirasawa, M., et al, [1990,jpn] **48-4668**
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] **48-4342**
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] **48-4936**
Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] **48-3565**
Freezing precipitation on lifting surfaces. Oleskiw, M.M., [1991,eng] **48-4864**
Growth rates of icicles. Maeno, N., et al, [1994,eng] **48-5168**
Helicopter icing in VMC below low stratus clouds. Fuchs, W., [1993,eng] **48-4340**
Helicopter rotor performance in icing conditions. Britton, R.K., [1992,eng] **48-4857**
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] **48-4338**
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] **48-4937**
Hungarian icing activity survey. Krómer, I., [1993,eng] **48-808**

Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice accretion and performance degradation calculations with LEWICE/NS. Potapczuk, M.G., et al, [1993,eng] 48-4884
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Ice accretion on trash racks in supercooled flows. Part 1: icing. Horjen, I., [1994,eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] 48-5597
Ice accretion prediction for a typical commercial transport aircraft. Bidwell, C.S., [1993,eng] 48-4888
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice accumulation characteristics on Hydro-Quebec HV insulators. Drapeau, J.F., et al, [1993,eng] 48-846
Ice certification of the Dornier 328 regional airliner. Welte, D., et al, [1991,eng] 48-3693
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] 48-827
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] 48-829
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] 48-615
Ice shape and performance for a multi-element airfoil. Berkowitz, B.M., et al, [1991,eng] 48-4859
Ice thickness and particle size from an eddy current deicer. Smith, S.O., [1994,eng] 48-3110
Ice thickness measurement system for the Icing Research Tunnel calibration. Gibson, T.L., et al, [1993,eng] 48-4889
Iceload investigations on insulators and aerial warning balls for overhead lines. Greisert, K., et al, [1993,eng] 48-833
Icing effects on aircraft stability and control. Ratvasky, T.P., et al, [1993,eng] 48-4879
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] 48-4339
Icing relevant parameters from sounding of stratiform clouds. Hoffmann, H.E., et al, [1990,ger] 48-4862
Icing studies in an aerospace altitude test facility. Osborn, A.R., et al, [1991,eng] 48-4736
Icing study for a future suspended bridge at Montmorency Falls. McComber, P., et al, [1993,eng] 48-2971
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] 48-854
Incompressible solver and ice accretion on an airfoil. Ok, H.N., [1994,eng] 48-3554
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Insulation properties of atmospheric iced insulators installed in high mountains. Sugawara, N., et al, [1993,eng] 48-848
Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] 48-843
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] 48-810
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] 48-2964
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756
Method to estimate icing loads on overhead lines. Pezard, J., [1993,eng] 48-831
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] 48-834
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] 48-3066
Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-2 [illegible]
Modelling of rime icing of wind turbines. Finstad, K.J., et al, [1993,eng] 48-822
Monitoring of snow and ice accretion on overhead line test spans. Wareing, J.B., et al, [1993,eng] 48-836
Numerical simulation of an icing event during WISP-90. Modica, G.D., et al, [1992,eng] 48-4748
Observation of ice load of transmission line in Hungary. Csomor, M., et al, [1993,eng] 48-824
Observations on falling of ice from conductor of transmission line. Csomor, M., et al, [1993,eng] 48-814
Overhead electric line poles protection against mechanical overloads. Goia, L.M., et al, [1993,eng] 48-844
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] 48-4887
Particle trajectory computer program for icing analysis of axisymmetric bodies. Frost, W., et al, [1992,eng] 48-4861
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] 48-823
Prediction of ice accretion on a swept NACA 0012 airfoil. Reehorst, A.L., [1992,eng] 48-4858
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Preliminary study on ice shape tracing with a laser light sheet. Mercer, C.R., et al, [1993,eng] 48-2639
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Protection of antennas on telecommunication masts and towers for atmospheric icing. Stöttrup-Andersen, U., [1993,eng] 48-852
Protection of overhead line conductors against mechanical overloads. Goia, L.M., [1993,eng] 48-837
Results from full scale measuring of ice and wind loads on a high mast in Sweden. Fahleson, C., [1993,eng] 48-853
Review of icing research at the Royal Aerospace Establishment. Gent, R.W., [1991,eng] 48-3689
Rime-, mixed- and glaze-ice evaluations of three scaling laws. Anderson, D.N., [1994,eng] 48-4890
Rosemount freezing rain sensor. Stein, P., [1993,eng] 48-828
Rotorcraft aviation icing research requirements: research review and recommendations. Peterson, A.A., et al, [1981,eng] 48-1145
Simulation of icicle growth using a 3D random walk model. Szilder, K., et al, [1993,eng] 48-817
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Snow loads on transmission and distribution lines in Alaska. Peabody, A.B., [1993,eng] 48-842
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] 48-812
Superstructure spray and ice accretion on a large U.S. Coast Guard cutter. Ryerson, C.C., [1993,eng] 48-855
Surface roughness due to residual ice in the use of low power deicing systems. Shin, J.W., et al, [1993,eng] 48-4881
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] 48-809
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Vessel icing in Alaskan waters—1979 to 1984 data set. Pease, C.H., et al, [1985,eng] 48-1143
Warning system for snow accretion on power lines. Wakamatsu, K., et al, [1993,eng] 48-838
Wet snow models for estimating snow load on power lines. Sakamoto, Y., et al, [1993,eng] 48-830
Wind and ice load monitoring on a test line. Haldar, A.K., et al, [1993,eng] 48-839
Wind speed effect on transmission line icing. Csomor, M., et al, [1993,eng] 48-815
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] 48-826
Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690
Wing/ground ice detection system for aircraft. Kunik, W.G., [1994,eng] 48-3109
Withstand voltage and flashover performance of iced insulators. Sugawara, N., et al, [1993,eng] 48-847
See [also]: Ice growth; Icing rate

Ice acoustics
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC). Schultz, A., et al, [1993,eng] 48-327
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] 48-4740
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1993,eng] 48-1044
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] 48-4907
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756
Precision navigation under ice cover. Massey, J., [1993,eng] 48-1773
Preliminary measurements of acoustic emission in young artificial sea ice. Langhorne, P.J., et al, [1993,eng] 48-4335
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al, [1991,eng] 48-4733
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Under-ice broadband transient measurements and processing. Meredith, R.W., [1992,eng] 48-4744

Ice adhesion
Adfreeze bond strength between sea ice and materials used for offshore structures. Hara, F., et al, [1994,eng] 48-3988
Adhesion of fresh and saline ice to bare and coated steel surfaces. Nelson, W.G., et al, [1994,eng] 48-3022
Analysis of ice rubble shear strength data. Chao, J.C., [1993,eng] 48-4331
Anti-icing coating compositions. Murase, H., [1989,eng] 48-1872
Effect of electric current on the adhesion of ice to metal piles. Paasivuori, P., et al, [1994,eng] 48-3965
Experimental study on adfreezing strength of snow and ice against roofing materials. Watanabe, M., [1993,jpn] 48-1993
Field data on transmission line icing collected at the Mount Valin test site. Druez, J., et al, [1994,eng] 48-3020
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] 48-1994
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] 48-4897
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] 48-2506
Influence of below-freezing temperatures on the shear behavior of wet rock joints. Park, Y.J., [1992,eng] 48-3528
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskiĭ, I.N., ed, [1991,rus] 48-1910
On the adfreeze properties of damaged roofing. Ito, T., et al, [1993,jpn] 48-1992
Pile uplift forces and the adfreeze phenomenon. Sum[illegible], J.C., [1994,eng] 48-3019
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Snow adhesion to roof sheets at sub-freezing temperatures. Shimizu, M., et al, [1992,jpn] 48-3165
Structure to prevent snow- and ice-adhesion e.g. to railway vehicle. Kansai Paint Company Ltd, [1993,eng] 48-4434
Study on the adfreeze properties of roofing materials. Tomabechi, T., et al, [1993,jpn] 48-1991
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks. Skriabin, R.M., et al, [1994,eng] 48-3991

Ice age
See [also]: Pleistocene

Ice age theory
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology. Xu, Q.Q., [1993,chi] 48-4572
Significant breakthrough in land-based record of ice age climates. Li, P.J., [1993,chi] 48-4583
Staggering through the ice ages. Monastersky, R., [1994,eng] 48-5121
Study of the small ice cap instability in the presence of fluctuations. Lee, W.H., [1994,eng] 48-3551

Ice air interface
1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514
Adverse aerodynamic impact of leading-edge ice buildups. Lynch, F.T., et al, [1991,eng] 48-3691
Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] 48-3695
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] 48-3694
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] 48-5027
AGARD symposium on effects of adverse weather on aerodynamics. Reinmann, J.J., [1991,eng] 48-3683
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Air-ice interaction. Gao, D.Y., et al, [1992,eng] 48-2899
All about ice. Davey, R., et al, [1993,eng] 48-2759
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136

Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] 48-3891
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] 48-1961
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] 48-1743
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Destruction of cometary ice. Kaimakov, E.A., et al, [1988,rus] 48-308
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics. Van Hengst, J., et al, [1991,eng] 48-3692
Effect of wing ice contamination on essential flight characteristics. Brumby, R.E., [1991,eng] 48-3685
Effects of adverse weather on aerodynamics.[1991,eng] 48-3684
Effects of frost on wing aerodynamics and take-off performance. Kind, R.J., et al, [1991,eng] 48-3687
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al, [1993,eng] 48-176
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone. Truskov, P.A., et al, [1993,eng] 48-1048
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] 48-3219
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Growth rates of icicles. Maeno, N., et al, [1994,eng] 48-5168
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505
Ice and climate studies. Oerlemans, J., [1989,eng] 48-223
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574
Ice spikes—can you explain them. Perry, H.F., [1993,eng] 48-316
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] 48-4105
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] 48-1047
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] 48-4184
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] 48-3542
Study of the small ice cap instability in the presence of fluctuations. Lee, W.H., [1994,eng] 48-3551
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Winds at the North Pole. Johnson, M., et al, [1993,eng] 48-2218
Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690

Ice bearing capacity
See [also]: Ice cover strength

Ice booms
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] 48-5612
Development of the sink-and-float type ice boom. Imaizumi, A., et al, [199-,jpn] 48-1046
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] 48-4354
Experimental study on the control of ice movement with a new design of ice boom. Enoki, K., et al, [1993,eng] 48-4352
Field study of ice control structure on river rapids. Mineta, M., et al, [1994,eng] 48-5551
Ice control in northern harbors. Saeki, H., [1992,eng] 48-1534
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon. Enoki, K., et al, [1993,eng] 48-154
Preventive measures against pack ice damage to marine resources and fishery facilities. Enoki, K., et al, [1994,eng] 48-3951
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] 48-3359
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836

Ice bottom surface
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet. Kvambekk, Å.S., [1992,eng] 48-2898
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] 48-3201
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo*. Langseth, M., et al, [1994,eng] 48-3269
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389

Ice breaking
7 MW multi purpose heavy duty icebreaker. Kleemann, A., [1993,eng] 48-105
Air-deliverable, ice-penetrating sonobuoy. Feltz, L.V., et al, [1991,eng] 48-3664
Autonomous rapid thermal ice penetrating method and system. Andersen, J.K., et al, [1991,eng] 48-2249
Azimuth thrusters in ice breaking technology. Savikurki, J., et al, [1993,eng] 48-110
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] 48-91
Classification of ships by icebreaking capability. Tsoĭ, L.G., [1993,eng] 48-115
Clearing ice for bridging operations. Diemand, D., [1994,eng] 48-5425
Compression tests on freshwater and sea ice samples. Kovacs, A., [1993,eng] 48-93
Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630
Development of multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-113
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Effect of scale on the indentation resistance of ice. Frederking, R.M.W., [1993,eng] 48-90
Efficiency of using non-traditional hull lines for icebreakers. Ierusalimskiĭ, A.V., et al, [1994,eng] 48-4307
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] 48-4296
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Experimental investigations of some polar sailing problems. Katsman, F., et al, [1993,eng] 48-4347
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] 48-5586
Factors influencing the coefficient of friction between sea ice and various materials. Nakazawa, N., et al, [1993,eng] 48-95
Finland breaks the ice. Brigham, L.W., [1987,eng] 48-2338
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Full scale deflection of ice by an icebreaker. Gagnon, R.E., et al, [1993,eng] 48-103
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Hi-E model ice—improving the elastic modulus of columnar model ice. Spencer, D., et al, [1994,eng] 48-5580
Hull for ice breaking ship. Hellmann, J.H., et al, [1993,eng] 48-5525
Ice breaker. Hellmann, J.H., et al, [1990,eng] 48-1938
Ice capability of the multipurpose icebreaker *Fennica*—full-scale results. Soininen, H., et al, [1993,eng] 48-111
Ice flow behind an icebreaking vessel. Salmi, P., et al, [1993,eng] 48-109
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Ice penetrating moored mine. Humphrey, S.A., [1990,eng] 48-2262
Ice propulsion of the icebreaker *Kapitan Sorokin* with conventional forebody. Tsoĭ, L.G., [1993,eng] 48-114
Ice wedge dynamics and local crushing. McKenna, R.F., et al, [1993,eng] 48-94
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] 48-4302
Icebreaker. Herkens, H., et al, [1989,eng] 48-4085
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Icebreaking ship. Jans, P., et al, [1993,eng] 48-1734
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] 48-4289
Interaction of hovercraft icebreaker platforms with ice cover. Zuev, V.A., et al, [1994,eng] 48-3952
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] 48-1039
Method for changing characteristics of ship and hull form of ice-breaking ship. Eronen, H., et al, [1992,eng] 48-5522
Method for determining the anisotropic fracture toughness of ice. Stehn, L.M., et al, [1993,eng] 48-97
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334
MSV Fennica, new operational profile for an icebreaker. Harjula, A., et al, [1994,eng] 48-4305
Multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-4345
Multipurpose icebreaker for the Finnish National Board of Navigation. Lohi, P., et al, [1993,eng] 48-4344
New generation Arktika class nuclear icebreaker feasibility study. Tsoĭ, L.G., [1994,eng] 48-4304
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170

Operational performance of the RV *Nathaniel B. Palmer.* Schultz, L.A., et al, [1994,eng] **48-4308**
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] **48-4887**
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] **48-1556**
Porosity effects on measured strength of warm ice. Fransson, L., et al, [1993,eng] **48-89**
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] **48-1537**
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] **48-1532**
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] **48-86**
Rate effects in brittle ice crushing. Kärnä, T., et al, [1993,eng] **48-92**
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] **48-4065**
Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] **48-5620**
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] **48-4303**
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] **48-3335**
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] **48-175**
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] **48-3449**
Shallow draft Thyssen/Waas-icebreaker. Rupp, K.H., et al, [1993,eng] **48-108**
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] **48-168**
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] **48-87**
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] **48-2738**
Splitting of ice floes. Dempsey, J.P., et al, [1993,eng] **48-88**
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] **48-1539**
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] **48-3336**
Study on the stem angle and icebreaking capability of icebreaking vessels. Choi, K.S., [1993,eng] **48-4346**
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] **48-5619**
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] **48-5629**
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] **48-3971**
Transient response model of low-speed diesel engine in icebreaking cargo vessels. Larmi, M., [1993,eng] **48-3647**
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] **48-2730**
See [also]: Ice cutting; Icebreakers

Ice breakup
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] **48-3523**
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] **48-1795**
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar. Yankielun, N.E., et al, [1993,eng] **48-3492**
Current issues in river ice forecasting. White, K.D., et al, [1993,eng] **48-686**
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] **48-4024**
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] **48-1793**
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] **48-512**
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] **48-5546**
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] **48-3339**
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] **48-5537**
Ice jam breakup flood discharge on the Yellow River. Yang, L.F., et al, [1994,eng] **48-5542**
Ice jam data collection. White, K.D., et al, [1994,eng] **48-5406**
Ice shelves on the Antarctic Peninsula: changing climate and sea level. Vaughan, D.G., [1992,eng] **48-785**
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] **48-2703**
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] **48-2702**
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] **48-3081**
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] **48-3082**
Ice thickness data, winter 1991-1992.[1993,eng] **48-2162**
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] **48-1674**
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] **48-4401**
Kinematic model of river ice motion during dynamic breakup. Ferrick, M.G., et al, [1993,eng] **48-1621**
Laboratory and numerical studies of ice release. Sarraf, S., et al, [1994,eng] **48-5540**
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] **48-1807**
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] **48-2084**
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] **48-1559**
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] **48-1794**
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] **48-2642**
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] **48-3819**
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] **48-5622**
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] **48-1545**
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] **48-1766**
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] **48-1787**
Statistical detection of climate change. MacNeil, I.B., [1993,eng] **48-1798**
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] **48-1156**

Ice bridges
See [also]: Ice crossings

Ice caps
See [also]: Ice sheets

Ice chemistry
See [also]: Ice composition

Ice composition
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] **48-4643**
Air clathrate hydrates in antarctic ice. Craig, H., et al, [1993,eng] **48-3943**
Air content of ice deposits near Vostok Station. Lipenkov, V.IA., et al, [1993,rus] **48-3567**
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] **48-5002**
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] **48-2812**
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] **48-1009**
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] **48-4053**
Atmospheric constituents in high alpine ice cores. Gäggeler, H., et al, [1994,eng] **48-2717**
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] **48-4654**
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] **48-5356**
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] **48-5169**
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] **48-2137**
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] **48-1854**
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] **48-3679**
Comparison of oxygen isotope records from the GISP2 and GRIP Greenland ice cores. Grootes, P.M., et al, [1993,eng] **48-1900**
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] **48-5354**
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] **48-2393**
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] **48-2801**
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] **48-1829**
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] **48-400**
Experimental study on influence of impurity on ice creep at - 1 degree centigrade. Huang, M.H., et al, [1993,chi] **48-1442**
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] **48-2388**
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] **48-3219**
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] **48-5173**
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] **48-4485**
Glaciological survey of clathrate hydrates. Hondoh, T., [1993,jpn] **48-3176**
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] **48-2710**
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] **48-619**
Heavy metal traces in antarctic ice and snow. Heumann, K.G., [1993,eng] **48-2382**
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] **48-2400**
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] **48-2995**
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] **48-2713**
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] **48-2799**
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] **48-932**
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] **48-5172**
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] **48-3781**
Ice-core drilling on Norwegian and Svalbard glaciers. Hagen, J.O., [1994,eng] **48-2716**
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] **48-10**
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] **48-220**
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf. Minikin, A., et al, [1991,eng] **48-5**
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] **48-1497**
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] **48 3245**
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] **48-4906**
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] **48-3543**
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] **48-2431**
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] **48-1859**
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] **48-2550**
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] **48-48**
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies. Fujita, S., et al, [1993,eng] **48-1712**
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] **48-5344**
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] **48-4866**
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] **48-1379**
North Atlantic atmospheric circulation and ice cover. Mayewski, P.A., et al, [1994,eng] **48-3244**
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] **48-5152**
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] **48-5357**
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] **48-1751**
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] **48-1861**
Paleovariations of atmospheric composition in ancient ice core air bubbles. Semiletov, I.P., [1993,rus] **48-3566**
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] **48-4759**
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] **48-4211**
Reports of planetary geology and geophysics program, 1990.[1991,eng] **48-3696**
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] **48-2715**
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] **48-2714**
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] **48-238**
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] **48-9**
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] **48-5175**
Sea ice and open-water plankton carbon isotopic composition. Dunbar, R.B., et al, [1992,eng] **48-3767**
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] **48-3319**
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] **48-5633**
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] **48-3542**
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] **48-4575**
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] **48-2712**
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] **48-4597**
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] **48-2391**
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] **48-4571**

Ice conditions
Altimeter Sea Ice Workshop, Feb. 15-16, 1990. Hawkins, J.D., ed, [1990,eng] **48-1481**
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] **48-1704**
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] **48-1291**
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] **48-4124**
Avoiding aircraft icing. Horne, T.A., [1993,eng] **48-2881**
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] **48-1690**

Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] **48-4293**
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea. Sato, K., [1988,jpn] **48-1838**
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] **48-2720**
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] **48-3674**
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] **48-3472**
Cold weather marine survival guide. Canadian Coast Guard. Arctic Ship Safety, [1993,eng] **48-3999**
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] **48-2354**
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994 eng] **48-5634**
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] **48-1476**
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] **48-1962**
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] **48-2816**
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] **48-1686**
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] **48-1870**
Evidence from Hudson Bay region of severe cold in the summer of 1816. Catchpole, A.J.W., [1985,eng] **48-2722**
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States. Krasiuk, V.S., et al, [1992,rus] **48-1954**
Formation of extremely severe ice conditions in the Labrador Sea in winter 1990/1991. Mironov, E.U., et al, [1992,eng] **48-734**
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] **48-3466**
General sea ice conditions. Vinje, T., et al, [1992,eng] **48-2903**
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] **48-3473**
Ice conditions on Alaska's Beaufort Sea Coast: extending the observations. Metzner, R., et al, [1979,eng] **48-4142**
Ice conditions. Dmitriev, N.E., et al, [1992,eng] **48-2909**
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] **48-4974**
Ice observations in the western Weddell Sea. Darling, M.N., et al, [1992,eng] **48-3772**
Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] **48-1698**
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] **48-131**
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] **48-2551**
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] **48-3468**
Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] **48-3483**
Improving the information content of ice manuals. Kazanskii, M.M., et al, [1992,rus] **48-2743**
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] **48-2723**
Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] **48-5571**
Master mariner's perspective on the performance of icebreakers. Toomey, P.R.M., [1994,eng] **48-4310**
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] **48-5298**
Methods to map ice conditions, to measure ice properties and to quantify ice features. Nortala-Hoikkanen, A., et al, [1993,eng] **48-177**
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] **48-2976**
MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] **48-1058**
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] **48-3452**
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] **48-1779**
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] **48-2642**
Oden-91 International Arctic Ocean Expedition. Travel report. Salmela, O., [1992,eng] **48-4894**
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] **48-4450**
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] **48-3467**
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] **48-3471**
Particulars of weather and ice conditions in the Arctic in 1991. Kuraiov, V.K., et al, [1992,eng] **48-731**
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] **48-2078**
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] **48-4948**
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] **48-5622**
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] **48-2499**
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] **48-1047**
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] **48-3433**
Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] **48-1700**
Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] **48-2645**
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] **48-4648**
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] **48-3474**
Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] **48-1702**
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] **48-3993**
Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] **48-789**
River ice conditions determined from ERS-1 SAR. Gatto, L.W., [1993,eng] **48-2935**
River ice investigations in Norwegian watercourses—a review. Asvall, R.P., [1994,eng] **48-5536**
Satellite observations of oceans and ice. Jezek, K.C., et al, [1988,eng] **48-1467**
Scatterometer measurements of arctic sea ice at C-band. Grandell, J., et al, [1993,eng] **48-1701**
Sea ice and climatic change in the Canadian Arctic since 1800. Dunbar, M., [1985,eng] **48-2721**
Sea ice information from satellite images (part 2). Aoshima, M., [1993,jpn] **48-1070**
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] **48-3462**
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] **48-2500**
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] **48-2631**
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] **48-3464**
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] **48-1062**
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] **48-3670**
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] **48-4836**
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] **48-3447**
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] **48-4330**
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] **48-3446**
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] **48-5574**
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] **48-4162**
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] **48-1822**
Year-to-year variability of sea ice extent in the arctic and subarctic seas. Ono, N., [1993,eng] **48-1063**
Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] **48-1687**
See [also]: Sea ice distribution

Ice (construction material)
Canadian Habbakuk Project; a project of the National Research Council of Canada. Gold, L.W., [1990,eng] **48-311**
Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] **48-1182**
Delay of arctic shoreline erosion by artificial spray ice. Sackinger, W.M., et al, [1994,eng] **48-3974**
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] **48-3390**
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] **48-930**
Method of repairing cracks in ice mass. Nazarov, V.D., et al, [1992,eng] **48-5529**
Method of treating backfill. Suzuki, T., [1990,eng] **48-2164**
On the creep tests of ice dome model in a low temperature laboratory. Tsukui, K., et al, [1993,jpn] **48-2002**
Prestressed ice as indigenous polar construction material. Nese, P.I., et al, [1991,eng] **48-4040**
Study of the mechanical properties of spray ice. Instanes, A., et al, [1994,eng] **48-5564**

Ice control
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] **48-2546**
Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] **48-1764**
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] **48-5548**
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] **48-1040**
Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] **48-1763**
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] **48-5612**
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] **48-5613**
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] **48-2220**
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] **48-5602**
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] **48-4236**
Cold time operation improvement of the Bucharest water supply intake. Iamandi, C., et al, [1994,eng] **48-3960**
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] **48-5607**
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] **48-4129**
Development of the sink-and-float type ice boom. Imaizumi, A., et al, [1993,jpn] **48-1046**
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] **48-1735**
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] **48-4354**
Experimental study on the control of ice movement with a new design of ice boom. Enoki, K., et al, [1993,eng] **48-4352**
Experimental study on the overtopping of breakwaters by ice floes and waves. Saeki, H., et al, [1993,eng] **48-156**
Field study of ice control structure on river rapids. Mineta, M., et al, [1994,eng] **48-5551**
Gravity base structure for an offshore platform in arctic regions. Barbaras, G.A.A., et al, [1990,eng] **48-2175**
How you can evaluate wetted salt.[1994,eng] **48-5302**
Hydroelectric station with inflatable hoses for ice control. Kashevarov, IU.B., [1992,eng] **48-5532**
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] **48-5597**
Ice control in northern harbors. Saeki, H., [1992,eng] **48-1534**
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] **48-1533**
Ice flow behind an icebreaking vessel. Salmi, P., et al, [1993,eng] **48-109**
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] **48-5606**
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] **48-1244**
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] **48-3987**
Icy water suction dredger two-piece overflow pipe. Laitera, J., [1994,eng] **48-4417**
Impact of ice on hydraulic structures and hydropower stations and its prevention. Li, G.F., et al, [1994,eng] **48-5553**
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] **48-3970**
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] **48-2688**
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] **48-1549**
Mechanism for preventing snow from sliding off roofs. Drew, D.A., [1993,eng] **48-4415**
Method and equipment for maintaining ice-free locks. Pontynen, E., [1993,eng] **48-1656**
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] **48-3066**
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon. Enoki, K., et al, [1993,eng] **48-154**
New sensor can reduce highway deicer use.[1994,eng] **48-4255**
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] **48-5549**
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] **48-5609**
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] **48-5608**
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] **48-3945**
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] **48-5239**
Preventive measures against pack ice damage to marine resources and fishery facilities. Enoki, K., et al, [1994,eng] **48-3951**
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] **48-1532**
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] **48-5535**
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] **48-5550**
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] **48-3993**
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] **48-1545**
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] **48-2091**
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] **48-2086**
Ship reinforcement for negotiating ice. Tromso Skipsverft, [1992,eng] **48-4423**
Snow and ice control in Japan and United States. Minsk, L.D., et al, [1993,eng] **48-2673**

Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156
Structures to protect river banks against ice erosion. Androshchuk, V.V., et al, [1992,eng] 48-5518
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Study on ice management by the air bubble method. Yamanaka, K., et al, [1993,jpn] 48-1045
Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] 48-149
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938
See [also]: Ice prevention

Ice cores

1550-1620: a period of summer accumulation in the Queen Elizabeth Islands. Alt, B.T., [1985,eng] 48-2729
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] 48-4643
Air clathrate hydrates in antarctic ice. Craig, H., et al, [1993,eng] 48-3943
Air content of ice deposits near Vostok Station. Lipenkov, V.IA., et al, [1993,rus] 48-3567
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Atmospheric constituents in high alpine ice cores. Gäggeler, H., et al, [1994,eng] 48-2717
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] 48-4654
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Butyl acetate: a drilling fluid for the extraction of deep ice cores from glaciers. Gosink, T.A., et al, [1990,eng] 48-4686
BZXJ super light ice core drill. Zhu, G.C., et al, [1994,eng] 48-5334
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] 48-1854
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate history of the last 150,000 years from Greenland ice cores. Moore, J.C., [1994,eng] 48-5569
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Comparison of oxygen isotope records from the GISP2 and GRIP Greenland ice cores. Grootes, P.M., et al, [1993,eng] 48-1900
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] 48-3612
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] 48-1233
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] 48-5354
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] 48-4200
Correlations between climate records from North Atlantic sediments and Greenland ice. Bond, G., et al, [1993,eng] 48-335
Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] 48-2854
Dating ice cores. Hammer, C.U., et al, [1993,eng] 48-1122
Deep core drilling in ice. Hansen, B.L., [1994,eng] 48-5326
Development of a JARE deep ice core drill system. Tanaka, Y., et al, [1994,eng] 48-5337
Development of an inventory of ice core data. Weaver, R.L., [1978,eng] 48-2980
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] 48-1065
Development of Japanese mechanical drills—personal reminiscences. Suzuki, Y., [1994,eng] 48-5325
Development of shallow and deep ice coring devices. Kelley, J.J., et al, [1990,eng] 48-4675
Development of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5329
Directional drilling in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-5342
Drilling of glacier boreholes with a hydrophilic liquid. Zagorodnov, V.S., et al, [1994,eng] 48-5341
Drilling through the antarctic ice sheet. Fujii, Y., [1993,jpn] 48-2437
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
Effect of hydrostatic pressure on the formation of air-hydrate crystals. Ikeda, T., et al, [1993,eng] 48-1865
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Electrical conductivity measurements from the GISP2 and GRIP Greenland ice cores. Taylor, K.C., et al, [1993,eng] 48-1899
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland. Schwander, J., et al, [1994,eng] 48-5335
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Experience of inland travel of JARE-33. Yamauchi, H., [1993,jpn] 48-2440
Experiment on ice cutting under high liquid pressure and low temperature. Narita, H., et al, [1994,eng] 48-5338
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] 48-2388
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] 48-3219
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
Future technical developments for the Polar Ice Coring Office 13.2 cm ice coring drill. Stanford, K.L., [1994,eng] 48-5331
Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] 48-4692
GISP2 completes coring of Greenland ice sheet. Morrison, M.C., [1993,eng] 48-773
Glacial ice cores: a window on the past. Saunders, A., et al, [1990,eng] 48-1877
Glacier geophysical studies for an ice-core site at Taylor Dome: year two. Morse, D.L., et al, [1992,eng] 48-2627
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] 48-4485
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] 48-2711
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] 48-2618
Glaciological survey of clathrate hydrates. Hondoh, T., [1993,jpn] 48-3176
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] 48-2710
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core drilling in central Greenland. Moore, J.C., [1993,eng] 48-3322
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] 48-2713
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice core processing at Dome F, Antarctica. Shoji, H., et al, [1994,eng] 48-5355
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Ice coring and drilling technologies developed by the Polar Ice Coring Office. Kelley, J.J., et al, [1994,eng] 48-5328
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] 48-2799
Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Ice-core drilling on Norwegian and Svalbard glaciers. Hagen, J.O., [1994,eng] 48-2716
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] 48-220
Inland traverse of JARE-33 in 1992. Kamiyama, K., [1993,jpn] 48-2439
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443
Instrumentation for the PICO deep ice coring drill. Hancock, W.H., [1994,eng] 48-5332
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf. Minikin, A., et al, [1991,eng] 48-5
Isotope shifts reflect Greenland moisture source changes. Charles, C.D., et al, [1994,eng] 48-2667
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] 48-1497
Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] 48-1857
KEMS-112 electromechanical ice core drill. Kudriashov, B.B., et al, [1994,eng] 48-5340
Last deglaciation event in the eastern central Arctic Ocean. Stein, R., et al, [1994,eng] 48-3737
Low power diamond rock coring parameters. Wang, Z.W., et al, [1994,eng] 48-5336
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia. Bursik, M., et al, [1993,eng] 48-4217
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
New improved version of the ISTUK ice core drill. Johnsen, S.J., et al, [1994,eng] 48-5327
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] 48-4204
North Atlantic atmospheric circulation and ice cover. Mayewski, P.A., et al, [1994,eng] 48-3244
Operational considerations of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5330
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] 48-1861
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Paleovariations of atmospheric composition in ancient ice core air bubbles. Semiletov, I.P., [1993,rus] 48-3566
Patterns of snow accumulation and O-18 in Queen Maud Land. Isaksson, E., [1991,eng] 48-1112
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Possible alpine ice-core drilling sites, an overview. Funk, M., [1994,eng] 48-2719
Preliminary depth-age scale of the GISP2 ice core. Meese, D.A., et al, [1994,eng] 48-5407
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Properties of marine ice, a new ice type. Moore, J.C., et al, [1994,eng] 48-3303
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] 48-2715
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] 48-2714
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] 48-9
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] 48-2834
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al, [1992,eng] 48-3773
Solar flares in antarctic ice cores. Dreschhoff, G.A.M., et al, [1993,eng] 48-3940
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] 48-2712
Staggering through the ice ages. Monastersky, R., [1994,eng] 48-5121
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599

Surface energy of air-hydrate crystals in Vostok ice core. Uchida, T., et al, [1993,eng] 48-1863
Synchronous changes in atmospheric CH4 and Greenland climate between 40 and 8 kyr bp. Chappellaz, J.A., et al, [1993,eng] 48-1668
Taylor Dome ice-core study. Grootes, P.M., et al, [1992,eng] 48-2626
Technical aspects of deep ice drilling on Law Dome. Morgan, V., et al, [1994,eng] 48-5333
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] 48-1855
Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] 48-2876
Thermal ice core drilling to 700 m depth at Mizuho Station, East Antarctica. Narita, H., et al, [1994,eng] 48-5343
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] 48-2[illegible]8
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] 48-2852
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Verification of extrusive volcanism in an ice core from King George I. Dai, F.N., et al, [1993,chi] 48-1944
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542
Vertical distribution of bacteria in Arctic sea ice. Gosink, J.J., et al, [1993,eng] 48-2314
Volcanic record in a Greenland ice core. Zielinski, G.A., et al, [1994,eng] 48-3941
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] 48-4571

Ice coring drills

Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
BZXJ super light ice core drill. Zhu, G.C., et al, [1994,eng] 48-5334
Deep core drilling in ice. Hansen, B.L., [1994,eng] 48-5326
Development of a JARE deep ice core drill system. Tanaka, Y., et al, [1994,eng] 48-5337
Development of Japanese mechanical drills—personal reminiscences. Suzuki, Y., [1994,eng] 48-5325
Development of shallow and deep ice coring devices. Kelley, J.J., et al, [1990,eng] 48-4675
Development of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5329
Directional drilling in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-5342
Drilling fluid for Dome F project in Antarctica. Fujita, S., et al, [1994,eng] 48-5361
Drilling of glacier boreholes with a hydrophilic liquid. Zagorodnov, V.S., et al, [1994,eng] 48-5341
Drilling through the antarctic ice sheet. Fujii, Y., [1993,jpn] 48-2437
Electromechanical drilling of a 300 m core in a dry hole at Summit, Greenland. Schwander, J., et al, [1994,eng] 48-5335
Experiment on ice cutting under high liquid pressure and low temperature. Narita, H., et al, [1994,eng] 48-5338
Fluids for use in deep ice-core drilling. Gosink, T.A., et al, [1994,eng] 48-5360
Future technical developments for the Polar Ice Coring Office 13.2 cm ice coring drill. Stanford, K.L., [1994,eng] 48-5331
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Hole liquids and gaskets for the ISTUK deep ice core drill. Gundestrup, N.S., et al, [1994,eng] 48-5359
Ice coring and drilling technologies developed by the Polar Ice Coring Office. Kelley, J.J., et al, [1994,eng] 48-5328
Instrumentation for the PICO deep ice coring drill. Hancock, W.H., [1994,eng] 48-5332
KEMS-112 electromechanical ice core drill. Kudriashov, B.B., et al, [1994,eng] 48-5340
Low power diamond rock coring parameters. Wang, Z.W., et al, [1994,eng] 48-5336
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
New improved version of the ISTUK ice core drill. Johnsen, S.J., et al, [1994,eng] 48-5327
Novel shipboard ice properties measurement system. Rossiter, J.R., et al, [1994,eng] 48-5590
Operational considerations of the U.S. deep coring ice drill. Wumkes, M.A., [1994,eng] 48-5330
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Technical aspects of deep ice drilling on Law Dome. Morgan, V., et al, [1994,eng] 48-5333
Thermal ice core drilling to 700 m depth at Mizuho Station, East Antarctica. Narita, H., et al, [1994,eng] 48-5343
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350
See [also]: Ice drills

Ice cover

Automated system of short term forecasts of the development, growth and breakup of ice cover and its practical application. Borshch, S.V., et al, [1992,rus] 48-1950
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue. Faure, G., et al, [1992,eng] 48-2615
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Gradientometric magnetic survey of arctic ice. Aleksandrov, E.B., et al, [1993,eng] 48-3248
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Ice formation on Ladoga Lake and its short term forecast. Sevast'ianova, N.V., [1992,rus] 48-1951
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] 48-932
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] 48-1657
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure. Sudakova, N.G., et al, [1992,rus] 48-1396
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] 48-1952
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] 48-3724
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al, [1992,rus] 48-1912
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] 48-2509

Ice cover distribution

See [also]: Ice conditions; Sea ice distribution

Ice cover effect

^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] 48-4540
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990, [1990,eng] 48-4664
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] 48-5027
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Archived time-series of Atlantic Ocean meteorological variables and surface fluxes. Bunker, A.F., et al, [1979,eng] 48-3699
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
Atmospheric and oceanographic studies in Lake Saroma. Shirasawa, K., et al, [1993,eng] 48-1073
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC). Schultz, A., et al, [1993,eng] 48-327
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] 48-4212
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Can sea ice be responsible for climate change?. Zakharov, V.F., [1992,eng] 48-733
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] 48-4194
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes. Webb, T., III, et al, [1993,eng] 48-2978
Cold environment tests of oil skimmer. Wessels, E., [1993,eng] 48-162
Cold weather marine survival guide. Canadian Coast Guard. Arctic Ship Safety, [1993,eng] 48-3999
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] 48-2643
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] 48-1895
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Drift and spread of oil in broken ice—field experiment. Vefsnmo, S., et al, [1994,eng] 48-5567
Dynamic former ice sheets. Dowdeswell, J.A., [1990,eng] 48-1502
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay. Messier, D., et al, [1989,fre] 48-3432
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils. Bech, C., et al, [1993,eng] 48-3720
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] 48-3758
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] 48-1075
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] 48-4035
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] 48-5561
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] 48-1028
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] 48-3046
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Flow characteristics in open channels with floating ice cover. Majewski, W., [1994,eng] 48-5538
Flow in ice covered channels. Schmidt, N.P., [1992,eng] 48-2654
Flow over dunes in ice-covered channels. Smith, B.T., et al, [1994,eng] 48-5545

Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] 48-1797
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] 48-2974
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] 48-3597
Ice algae in the subarctic ocean: review. Taguchi, S., [1990,eng] 48-4673
Ice control in northern harbors. Saeki, H., [1992,eng] 48-1534
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Ice processes. Augustein, E., et al, [1991,eng] 48-4867
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Investigation of turbulent underice flows. Dolgopolova, E.N., [1994,eng] 48-5544
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] 48-202
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-4360
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] 48-1543
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] 48-1549
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] 48-5591
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] 48-4734
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] 48-3619
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Ornstedt, A., et al, [1994,eng] 48-4413
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] 48-4195
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Natural ice as a component of biosphere. Ivanov, A.V., [1993,eng] 48-1085
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] 48-4204
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Northern and southern hemispheric polar lows—a comparative study. Rasmussen, E.A., [1993,eng] 48-2101
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] 48-3548
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] 48-4843
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
Observation of the heat flux between atmosphere and ocean with remote sensing (I). Sasaki, Y., et al, [1990,eng] 48-4682
Ocean currents induced by wind and waves. Melsom, A., [1992,eng] 48-4764
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Oil spreading in surface waters with an ice cover. Yapa, P.D., et al, [1993,eng] 48-317
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] 48-2537
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] 48-3382
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Phytoplankton population dynamics in Lake Fryxell. Spaulding, S.A., et al, [1994,eng] 48-4813
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] 48-200
Precision navigation under ice cover. Massey, J., [1993,eng] 48-1773
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Preventive measures against pack ice damage to marine resources and fishery facilities. Enoki, K., et al, [1994,eng] 48-3951
Primary production in sea ice covered waters. Alexander, V., [1990,eng] 48-4665
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System. Aussois, France, Sep. 6-12, 1992. [1993,eng] 48-4177
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] 48-3993
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] 48-5552
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] 48-3727
Seabirds and fur seals near the Antarctic Peninsula in winter 1986. Whitehouse, M.J., et al, [1994,eng] 48-5153
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Spectral extinction coefficient of sea ice. Kishigami, H., et al, [1993,jpn] 48-1078
Spectral light environment in sea ice. Kishino, M., [1993,eng] 48-1077
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Summary of WinCruise IV to the Antarctic Peninsula during September 1991. Quetin, L.B., et al, [1992,eng] 48-5098
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Temperature differences in the Restigouche estuary during the ice-covered season. Bettignies, C., et al, [1994,eng] 48-3360
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Traffic on ice and snow. Øberg, G., [1993,eng] 48-5061
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358

Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] **48-1081**
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] **48-3545**
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] **48-4247**
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] **48-4386**
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] **48-1878**
Under-ice broadband transient measurements and processing. Meredith, R.W., [1992,eng] **48-4744**
Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] **48-1079**
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] **48-1080**
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] **48-3716**
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] **48-2736**
Variation of water temperature in an ice-covered stream. Miya, A., et al, [1994,eng] **48-5543**
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] **48-2152**
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] **48-2416**
Water circulation and flow regimes in Lake Saroma. Takeuchi, T., [1993,eng] **48-1076**
Wave attenuation under ice cover. Sakai, S., et al, [1993,eng] **48-180**
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] **48-1051**
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] **48-1242**
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] **48-4198**

Ice cover strength

Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] **48-1026**
Adfreeze bond strength between sea ice and materials used for offshore structures. Hara, F., et al, [1994,eng] **48-3988**
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] **48-4012**
Analysis of ice rubble shear strength data. Chao, J.C., [1993,eng] **48-4331**
Analysis of spatial heterogeneity of ultimate ice compressive strength. Surkov, G.A., et al, [1993,eng] **48-4329**
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] **48-140**
Autonomous rapid thermal ice penetrating method and system. Andersen, J.K., et al, [1991,eng] **48-2249**
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] **48-91**
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] **48-5618**
Compression tests on freshwater and sea ice samples. Kovacs, A., [1993,eng] **48-93**
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] **48-4325**
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] **48-5589**
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] **48-142**
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] **48-2633**
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] **48-4322**
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al, [1994,eng] **48-5585**
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] **48-4332**
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] **48-4334**
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] **48-2077**
Design concepts for Sakhalin offshore production platforms. Gulati, K.C., [1993,eng] **48-139**
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1993,eng] **48-1044**
Drilling options for the Cape Roberts Project. Pyne, A.R., et al, [1992,eng] **48-2321**
Dynamic model of ice-structure interaction. Bekker, A.T., et al, [1993,eng] **48-1054**
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] **48-1035**
Effect of Bohai ice crushing strength on vertical structures. Zhang, M.Y., et al, [1993,chi] **48-2096**
Effect of scale on the indentation resistance of ice. Frederking, R.M.W., [1993,eng] **48-90**
Effect of transverse inhomogeneity on deformations and stresses in an ice cover. Nystrom, M., [1993,eng] **48-4326**
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] **48-4333**
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] **48-3666**
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] **48-5586**
Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] **48-4317**
Experimental study of pressure ridge modeling and indentation tests. Tsuchida, Y., et al, [1993,jpn] **48-1032**
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] **48-5561**
Experimental study on local ice pressures acting on structures. Tozawa, S., et al, [1993,jpn] **48-1038**
Factors influencing the coefficient of friction between sea ice and various materials. Nakazawa, N., et al, [1993,eng] **48-95**
Failure modes in compressed ice. Buck, S.E., et al, [1994,eng] **48-5584**
Failure of fresh-water granular ice under multiaxial compressive loading. Weiss, J., et al, [1994,eng] **48-5588**
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] **48-167**
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] **48-802**
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] **48-2683**
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] **48-145**
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] **48-5546**
Hi-E model ice—improving the elastic modulus of columnar model ice. Spencer, D., et al, [1994,eng] **48-5580**
Ice dynamics at Ice Station Weddell 1: I. Part 1. Ackley, S.F., et al, [1992,eng] **48-3778**
Ice force design and measurement of a conical structure. Määttänen, M., [1994,eng] **48-5577**
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] **48-1037**
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] **48-5621**
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] **48-5559**
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] **48-4316**
Ice loads on multifaceted conical structures. Croasdale, K.R., et al, [1993,eng] **48-138**
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] **48-1842**
Ice penetrating moored mine. Humphrey, S.A., [1990,eng] **48-2262**
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] **48-5555**
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] **48-5617**
Ice wedge dynamics and local crushing. McKenna, R.F., et al, [1993,eng] **48-94**
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] **48-5558**
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] **48-4297**
In situ investigations of the shore-ice-grounded hummock interaction. Sukhorukov, K.K., et al, [1994,eng] **48-5582**
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] **48-5560**
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] **48-5378**
Influence of specimen geometry on the fracture toughness of freshwater ice. Stehn, L.M., et al, [1994,eng] **48-3969**
Interaction of hovercraft icebreaker platforms with ice cover. Zuev, V.A., et al, [1994,eng] **48-3952**
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] **48-3957**
Investigation into the effects of ice cover parameters upon ship resistance. Alekseev, IU.N., et al, [1994,eng] **48-3950**
Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] **48-3700**
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al, [1993,eng] **48-143**
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al, [1994,eng] **48-5568**
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] **48-3972**
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] **48-801**
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] **48-1039**
Mechanics of natural deforming sea ice floes. Smirnov, V.N., [1993,eng] **48-96**
Method for determining the anisotropic fracture toughness of ice. Stehn, L.M., et al, [1993,eng] **48-97**
Method for evaluation of first-year ice hummock strength. Surkov, G.A., et al, [1993,eng] **48-4336**
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] **48-5626**
Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] **48-4158**
Model ice developed at the HSVA ice tank. Evers, K.U., et al, [1993,eng] **48-173**
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] **48-144**
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] **48-3334**
Modeling of fracture and damage in quasibrittle materials. Jirasek, M., [1993,eng] **48-3540**
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] **48-5565**
Modelling dynamic ice forces. Brown, T.G., [1994,eng] **48-5614**
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] **48-3701**
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] **48-2129**
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] **48-1559**
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] **48-141**
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] **48-5616**
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] **48-2686**
Nonlinear primary and secondary creep deflection of ice plate under constant loading. Wu, Z.Ç., et al, [1993,eng] **48-99**
Novel shipboard ice properties measurement system. Rossiter, J.R., et al, [1994,eng] **48-5590**
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] **48-170**
Numerical modeling of the plane static deformation in ice cover. Danilenko, V.I., et al, [1993,eng] **48-4324**
Offshore structures for arctic oil and gas operations. Krahl, R.B., et al, [1990,eng] **48-4685**
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] **48-1034**
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] **48-4321**
Physico-mechanical model of self-excited processes by sea ice compacting. Smirnov, V.N., et al, [1993,eng] **48-4328**
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] **48-3945**
Porosity effects on measured strength of warm ice. Fransson, L., et al, [1993,eng] **48-89**
Portable radar for ice thickness measurements. Toikka, M., et al, [1994,eng] **48-3103**
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] **48-5622**
Preliminary measurements of acoustic emission in young artificial sea ice. Langhorne, P.J., et al, [1993,eng] **48-4335**
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] **48-86**
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] **48-4312**
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] **48-5535**
Quasi-static thermal stresses in the sea ice. Smirnov, V.N., et al, [1994,eng] **48-5578**
Rate effects in brittle ice crushing. Kärnä, T., et al, [1993,eng] **48-92**
Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] **48-5620**
Scale effects in distribution of the floe internal stresses. Sukhorukov, K.K., [1994,eng] **48-5583**
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] **48-175**
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] **48-5381**
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction. Curtin, T.B., ed, [1991,eng] **48-1480**
Sea ice strength variability due to various ice column axis orientation. Polomoshnov, A.M., et al, [1993,eng] **48-4337**
Selection of standard level for sea ice strength. Truskov, P.A., et al, [1993,eng] **48-1036**
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] **48-4891**
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] **48-168**
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] **48-87**
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] **48-3015**
Splitting of ice floes. Dempsey, J.P., et al, [1993,eng] **48-88**
Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] **48-5581**
Strength parameters of hummocks: field observations and laboratory tests. Truskov, P.A., et al, [1993,eng] **48-1033**
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] **48-1156**
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] **48-4319**
Studies in ice mechanics. Kämäräinen, J., [1993,eng] **48-4904**
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] **48-174**
Study on the stem angle and icebreaking capability of icebreaking vessels. Choi, K.S., [1993,eng] **48-4346**
Tensile fracture of saline ice. DeFranco, S.J., [1993,eng] **48-3533**
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] **48-5619**
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] **48-5629**
Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] **48-5576**

Total ice forces on multi-legged offshore structures. Takeuchi, T., et al. [1993,eng] 48-4318
Traffic and transport on ice cover in Nenjiang River. Xu, B.M., et al. [1992,chi] 48-2018
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] 48-3971
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Uniaxial compressive strength and elastic modulus of sea ice. Takeuchi, T., et al. [1993,eng] 48-4327
Use of a low-powered laser to measure crack front development: Weber, L.J., et al. [1993,eng] 48-98
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al. [1993,eng] 48-2730
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679
See [also]: Ice strength

Ice cover thickness
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al. [1994,eng] 48-4850
Airborne electromagnetic mapping of ice thickness in the Baltic Sea. Hautaniemi, H., et al. [1994,eng] 48-5592
Antarctic career move for ageing torpedo. Anderson, ., [1993,eng] 48-3626
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Arctic response to CO_2-induced climatic warming. Cattle, H., et al. [1993,eng] 48-4205
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al. [1994,eng] 48-2811
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Biennial report 1991/92. Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials. [1993,ger] 48-3646
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al. [1991,eng] 48-3630
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations. Cooper, A.K., et al. [1993,eng] 48-3291
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea. Sato, K., [1988,jpn] 48-1838
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al. [1994,eng] 48-5165
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al. [1994,eng] 48-3118
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al. [1993,eng] 48-2816
Dual-band infrared imaging for mapping sea ice. Del Grande, N.K., et al. [1992,eng] 48-4760
Electromagnetic ice thickness sensor for marginal ice zone. Prinsenberg, S.J., et al. [1993,eng] 48-178
Errata. Global warming: a polar approach. Wadhams, P., [1992,eng] 48-1535
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al. [1994,eng] 48-3457
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] 48-3484
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al. [1993,eng] 48-176
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al. [1994,eng] 48-3927
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al. [1994,eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al. [1993,eng] 48-1688
Fast ice behavior, Cape Roberts area. Pyne, A.R., [1992,eng] 48-2320
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] 48-1793
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude. Kovacs, A., et al. [1993,eng] 48-1004
Glacial history of Antarctica: results from Leg 119. B rron, J.A., et al. [1991,eng] 48-3632
Glacigenic sediments related to the glacial history of Prydz Bay. Solheim, A., et al. [1991,eng] 48-3631
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed. [1993,eng] 48-4213
Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al. [1994,eng] 48-4766
Ice age paleotopography. Peltier, W.R., [1994,eng] 48-5106
Ice conditions. Dmitriev, N.E., et al. [1992,eng] 48-2909
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Ice cover thickness and air temperature. Ha, H.W., et al. [1994,eng] 48-5599
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
Ice dynamics at Ice Station Weddell 1: I. Part 1. Ackley, S.F., et al. [1992,eng] 48-3778
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al. [1994,eng] 48-3021
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al. [1994,eng] 48-4291
Ice jam data collection. White, K.D., et al. [1994,eng] 48-5406
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al. [1992,eng] 48-3777
Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al. [1992,eng] 48-2622
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] 48-2703
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] 48-2702
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] 48-3081
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] 48-3082
Ice thickness data, winter 1991-1992.[1993,eng] 48-2162
Ice thickness variability of the McMurdo Sound landfast ice runway. Morris, K., et al. [1992,eng] 48-3768
Ice-core studies in the western Weddell Sea. Gow, A.J., et al, [1992,eng] 48-3771
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al. [1993,eng] 48-1276
Improving of microwave remote sensing of sea ice. Shi, Z.F., et al. [1993,eng] 48-1715
Intercomparison of ERS-1 SAR, airborne SLAR and electromagnetic ice-thickness data. Ikeda, M., et al. [1994,eng] 48-3456
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al. [1990,eng] 48-4907
Level ice thickness and multiyear drift in the Arctic. Mironov, E.U., [1994,eng] 48-5603
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al. [1993,jpn] 48-1053
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al. [1993,eng] 48-3004
Mathematical modeling of dynamic-thermodynamic behaviour of sea ice. Leppäranta, M., [1990,eng] 48-4687
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al. [1992,rus] 48-3723
Microwave and optical measurements of sea ice. Goeckel, D.L., et al. [1993,eng] 48-1089
Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] 48-1559
Monthly mean sea ice data from ice prediction models. Posey, P.G., et al. [1991,eng] 48-4731
Novel shipboard ice properties measurement system. Rossiter, J.R., et al. [1994,eng] 48-5590
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al. [1992,rus] 48-3724
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al. [1992,rus] 48-1912
Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al. [1993,eng] 48-1057
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al. [1993,eng] 48-2807
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] 48-1466
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al. [1994,eng] 48-4816
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
Portable radar for ice thickness measurements. Toikka, M., et al. [1994,eng] 48-3103
Radar ice thickness measurements in north Victoria Land. Druivenga, G., et al. [1993,eng] 48-2708
Sea ice and circulation in the Weddell Sea. Petit, B., et al. [1993,eng] 48-2142
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al. [1993,chi] 48-1943
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al. [1993,eng] 48-2834
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al. [1993,eng] 48-3200
Ship-ice contact and design ice loads. Kujala, P., et al. [1994,eng] 48-4290
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] 48-2347
Snow and ice distribution in the Weddell Sea. Eicken, H., et al. [1994,eng] 48-4168
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al. [1992,eng] 48-3773
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] 48-3128
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al. [1991,eng] 48-4733
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al. [1993,eng] 48-2385
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al. [1993,eng] 48-3234
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al. [1993,eng] 48-4655
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Thinning rate of ice sheet on Mizuho Plateau. Toh, H., et al. [1992,eng] 48-919
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al. [1993,eng] 48-1835
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] 48-2755
Validation of cold climate lake temperature simulation. Gu, R.C., et al. [1993,eng] 48-2736
See [also]: Glacier thickness

Ice cracking
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al. [1993,eng] 48-5128

Ice cracks
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] 48-3013
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al. [1994,eng] 48-5589
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al. [1994,eng] 48-5585
Cracking of ice during rapid unloading. Couture, M.L., et al. [1994,eng] 48-2748
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] 48-1749
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al. [1993,eng] 48-4333
Failure of fresh-water granular ice under multiaxial compressive loading. Weiss, J., et al. [1994,eng] 48-5588
Fast ice behavior, Cape Roberts area. Pyne, A.R., [1992,eng] 48-2320
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] 48-5546
Influence of specimen geometry on the fracture toughness of freshwater ice. Stehn, L.M., et al. [1994,eng] 48-3969
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al. [1993,eng] 48-143
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al. [1994,eng] 48-5568
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] 48-3972
Method for determining the anisotropic fracture toughness of ice. Stehn, L.M., et al. [1993,eng] 48-97
Method of repairing cracks in ice mass. Nazarov, V.D., et al. [1992,eng] 48-5529
Modeling of fracture and damage in quasibrittle materials. Jirasek, M., [1993,eng] 48-3540
Modelling the deformation and failure of ice grain assemblies. McKenna, R.F., [1993,eng] 48-4398
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al. [1994,eng] 48-5616
Numerical modeling of the plane static deformation in ice cover. Danilenko, V.I., et al. [1993,eng] 48-4324
Porosity effects on measured strength of warm ice. Fransson, L., et al. [1993,eng] 48-89
Preliminary measurements of acoustic emission in young artificial sea ice. Langhorne, P.J., et al. [1993,eng] 48-4335
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al. [1994,eng] 48-3143
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al. [1993,eng] 48-1087
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al. [1994,eng] 48-3142
Splitting of ice floes. Dempsey, J.P., et al. [1993,eng] 48-88
Studies in ice mechanics. Kämäräinen, J., [1993,eng] 48-4904
Study of fracture toughness and fatigue of freshwater ice. Weber, L.J., [1994,eng] 48-3546
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Tensile fracture of saline ice. DeFranco, S.J., [1993,eng] 48-3533
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Use of a low-powered laser to measure crack front development. Weber, L.J., et al. [1993,eng] 48-98

Ice creep
Anisotropic model for gained ice ductility. Zhan, C., et al. [1994,eng] 48-3830
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] 48-803
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al. [1993,eng] 48-4322

Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] 48-1182
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] 48-4332
Creep deflection of ice plate under variable loading. Wu, Z., et al, [1994,eng] 48-3016
Dislocation/grain boundary interactions in ice Ih under creep conditions. Liu, F.P., et al, [1994,eng] 48-5587
Effect of transverse inhomogeneity on deformations and stresses in an ice cover. Nystrom, M., [1993,eng] 48-4326
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] 48-400
Experimental study on influence of impurity on ice creep at - 1 degree centigrade. Huang, M.H., et al, [1993,chi] 48-1442
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Meteorite thermoluminescence and ice movement in the Elephant Moraine region. Benoit, P.H., et al, [1992,eng] 48-2616
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Modelling the deformation and failure of ice grain assemblies. McKenna, R.F., [1993,eng] 48-4398
Nonlinear primary and secondary creep deflection of ice plate under constant loading. Wu, Z.Q., et al, [1993,eng] 48-99
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
On the creep tests of ice dome model in a low temperature laboratory. Tsukui, K., et al, [1993,jpn] 48-2002
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] 48-68
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Sticky spots under ice streams. Alley, R.B., [1992,eng] 48-2623
Stopping an ice stream. Walker, G., [1993,eng] 48-774

Ice crossings
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Dog sled safety on ice. Collins, J., [1994,eng] 48-3270
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Portable radar for ice thickness measurements. Toikka, M., et al, [1994,eng] 48-3103
Traffic and transport on ice cover in Nenjiang River. Xu, B.M., et al, [1992,chi] 48-2018

Ice crystal adhesion
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Physical properties of snow and ice particles. Maeno, N., [1991,jpn] 48-3419

Ice crystal collision
Charge transfer during individual collisions in ice growing by riming. Avila, E.E., et al, [1991,eng] 48-3682
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4851
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Physical properties of snow and ice particles. Maeno, N., [1991,jpn] 48-3419
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] 48-983
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854

Ice crystal growth
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
All about ice. Davey, R., et al, [1993,eng] 48-2759
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] 48-2854
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] 48-3162
Experimental study of growth and phase change of polar stratospheric cloud particles. Hallett, J., et al, [1992,eng] 48-3698
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Growth rates of depth hoar (II). Fukuzawa, T., et al, [1992,jpn] 48-3204
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] 48-71
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4851
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
Oxidation-reduction reactions in growing ice crystals, comment and reply. Gross, G.W., et al, [1991,eng] 48-778
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Physical chemistry of the H2SO4/HNO3/H2O system. Molina, M.J., et al, [1993,eng] 48-330
Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Studies of cubic ice crystals. Finnegan, W.G., et al, [1991,eng] 48-4755
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894
Thickness and anisotropy of the ice-water interface. Beaglehole, D., et al, [1993,eng] 48-1671
Unfrozen water content in multi-crystal ice. Xu, X.Z., et al, [1993,eng] 48-5255
Unfrozen water content in polycrystal ice. Xu, X.Z., et al, [1993,chi] 48-1435
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628

Ice crystal nuclei
Effect of hydrostatic pressure on the formation of air-hydrate crystals. Ikeda, T., et al, [1993,eng] 48-1865

Ice crystal optics
3-dimensional scattering functions of ice crystals and depolarization effects. Rockwitz, K.D., [1989,eng] 48-1473
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] 48-4474
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] 48-992
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] 48-3162
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] 48-1475
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] 48-4807
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] 48-4694
Light scattering by finite hexagonal crystals arbitrarily oriented in space. Brogniez, G., [1989,eng] 48-1477
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Modeling of cirrus bidirectional reflectances. Brogniez, G., et al, [1993,eng] 48-2988
Modelling cirrus optical properties. Hess, M., et al, [1993,eng] 48-2990
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] 48-1213
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] 48-209
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Scattering of electromagnetic radiation by atmospheric ice crystals. Macke, A., [1991,ger] 48-4865
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] 48-2992
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165
Single scattering by non-spherical ice particles. Macke, A., [1993,eng] 48-2991
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Small-angle light scattering by crystalline particles within clouds. Shifrin, K.S., et al, [1989,eng] 48-1474
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021

Ice crystal size
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475

Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] 48-5354
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Growth rates of depth hoar (II). Fukuzawa, T., et al, [1992,jpn] 48-3204
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] 48-3624
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] 48-4694
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Unfrozen water content in multi-crystal ice. Xu, X.Z., et al, [1993,eng] 48-5255
Unfrozen water content in polycrystal ice. Xu, X.Z., et al, [1993,chi] 48-1435
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

Ice crystal structure
All about ice. Davey, R., et al, [1993,eng] 48-2759
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] 48-3250
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] 48-3251
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Dislocation/grain boundary interactions in ice Ih under creep conditions. Liu, F.P., et al, [1994,eng] 48-5587
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] 48-3162
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] 48-3624
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
In-situ synchrotron x-ray topographic studies of polycrystalline ice. Baker, I., et al, [1994,eng] 48-5579
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies. Fujita, S., et al, [1993,eng] 48-1712
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] 48-2749
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] 48-4812
Physical properties of snow and ice particles. Maeno, N., [1991,jpn] 48-3419
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Studies of cubic ice crystals. Finnegan, W.G., et al, [1991,eng] 48-4755
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] 48-1855
Unfrozen water content in multi-crystal ice. Xu, X.Z., et al, [1993,eng] 48-5255
Unfrozen water content in polycrystal ice. Xu, X.Z., et al, [1993,chi] 48-1435
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] 48-2392

Ice crystals
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Cirrus ice crystal measurements. Matrosov, S.Y., [1993,eng] 48-3644
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
Effect of hydrostatic pressure on the formation of air-hydrate crystals. Ikeda, T., et al, [1993,eng] 48-1865
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Ice depolarization during rainfall events. Maekawa, Y., et al, [1994,eng] 48-4214
Ice particles in noctilucent clouds. Sugiyama, T., [1994,eng] 48-3634
Ice water content in cirrus clouds. Brown, P.R.A., [1993,eng] 48-2555
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] 48-5152
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Practical elastic moduli for polycrystalline ice. Derradji-Aouat, A., et al, [1994,eng] 48-3014
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7. Watanabe, O., ed, NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992, [1993,eng] 48-1862
Surface energy of air-hydrate crystals in Vostok ice core. Uchida, T., et al, [1993,eng] 48-1863
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050

Ice cutting
Apparatus for removing ice from a chopped or cut hole. Malak, F.R., [1991,eng] 48-2253
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] 48-5177
Experiment on ice cutting under high liquid pressure and low temperature. Narita, H., et al, [1994,eng] 48-5338
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Ice block forming device, using heat carrier stream cutting. Krivoshchekov, IU.V., et al, [1992,eng] 48-5511
Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627
Investigation of the ice cutting process by the rotary drill. Vasil'ev, N.I., et al, [1994,eng] 48-5339
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] 48-87
Snow and ice cleaving machine. Ermilov, A.B., [1992,eng] 48-5517
Snow and ice cleaving machine. Litvinenko, V.T., et al, [1992,eng] 48-5515
Working unit of snow and ice cleaving machine. Ermilov, A.B., [1992,eng] 48-5516

Ice dams
Frigid zone ice dike prediction system. Wang, X.R., et al, [1994,eng] 48-5604
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] 48-3597
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] 48-1581
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961
Record of jökulhlaups from Summit Lake, northwest. a British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Reservoir control to pre ent tailwater ice jamming. Karnovich, V.N., [1992,eng] 48-1545

Ice dating
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate history of the last 150,000 years from Greenland ice cores. Moore, J.C., [1994,eng] 48-5569
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] 48-3612
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] 48-4200
Dating ice cores. Hammer, C.U., et al, [1993,eng] 48-1122
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] 48-2711
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] 48-2710
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] 48-2715
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] 48-2718

Ice deformation
Analysis of ice rubble shear strength data. Chao, J.C., [1993,eng] 48-4331
Analysis of spatial heterogeneity of ultimate ice compressive strength. Surkov, G.A., et al, [1993,eng] 48-4329
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] 48-3013
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] 48-5618
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] 48-4481
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] 48-5589
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] 48-142
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] 48-4322
Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] 48-1182
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al, [1994,eng] 48-5585
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] 48-4332
Creep deflection of ice plate under variable loading. Wu, Z., et al, [1994,eng] 48-3016
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] 48-4334
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] 48-3251
Dislocation/grain boundary interactions in ice Ih under creep conditions. Liu, F.P., et al, [1994,eng] 48-5587
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
Effect of transverse inhomogeneity on deformations and stresses in an ice cover. Nystrom, M., [1993,eng] 48-4326
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] 48-4333
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] 48-3666
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] 48-5586
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] 48-2692
Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] 48-4317
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] 48-5561
Experiments on crushing interaction between ice floes. Sayed, M., et al, [1993,eng] 48-4357
Failure modes in compressed ice. Buck, S.E., et al, [1994,eng] 48-5584
Failure of fresh-water granular ice under multiaxial compressive loading. Weiss, J., et al, [1994,eng] 48-5588
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] 48-167
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] 48-145
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] 48-5546
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Hi-E model ice—improving the elastic modulus of columnar model ice. Spencer, D., et al, [1994,eng] 48-5580
Ice dynamics at Ice Station Weddell 1: 1. Part 1. Ackley, S.F., et al, [1992,eng] 48-3778

Ice force design and measurement of a conical structure. Määttänen, M., [1994,eng] 48-5577
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] 48-5559
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-4316
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] 48-5555
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
In-situ synchrotron x-ray topographic studies of polycrystalline ice. Baker, I., et al, [1994,eng] 48-5579
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] 48-5560
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al, [1993,eng] 48-143
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al, [1994,eng] 48-5568
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] 48-3972
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Mechanics of natural deforming sea ice floes. Smirnov, V.N., [1993,eng] 48-96
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Model for ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-148
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Modeling of fracture and damage in quasibrittle materials. Jirasek, M., [1993,eng] 48-3540
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Modelling dynamic ice forces. Brown, T.G., [1994,eng] 48-5614
Modelling the deformation and failure of ice grain assemblies. McKenna, R.F., [1993,eng] 48-4398
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] 48-5616
Nonlinear primary and secondary creep deflection of ice plate under constant loading. Wu, Z.Q., et al, [1993,eng] 48-99
Numerical modeling of the plane static deformation in ice cover. Danilenko, V.I., et al, [1993,eng] 48-4324
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
Numerical simulations of mesoscale rheology of broken ice fields. Frederking, R.M.W., et al, [1993,eng] 48-166
Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al, [1993,eng] 48-1057
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] 48-4812
Physico-mechanical model of self-excited processes by sea ice compacting. Smirnov, V.N., et al, [1993,eng] 48-4328
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622
Preliminary measurements of acoustic emission in young artificial sea ice. Langhorne, P.J., et al, [1993,eng] 48-4335
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] 48-5535
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] 48-2219
Quasi-static thermal stresses in the sea ice. Smirnov, V.N., et al, [1994,eng] 48-5578
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] 48-5620
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Scale effects in distribution of the floe internal stresses. Sukhorukov, K.K., [1994,eng] 48-5583
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction. Curtin, T.B., ed, [1991,eng] 48-1480
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
Studies in ice mechanics. Kämäräinen, J., [1993,eng] 48-4904
Study of fracture toughness and fatigue of freshwater ice. Weber, L.J., [1994,eng] 48-3546
Tensile fracture of saline ice. DeFranco, S.J., [1993,eng] 48-3533
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-5619
Total ice forces on multi-legged offshore structures. Takeuchi, T., et al, [1993,eng] 48-4318
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] 48-3971
Uniaxial compressive strength and elastic modulus of sea ice. Takeuchi, T., et al, [1993,eng] 48-4327
Use of a low-powered laser to measure crack front development. Weber, L.J., et al, [1993,eng] 48-98
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

Ice density

Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Effect of density variations in models of rime ice accretion on overhead line conductors. Skelton, L., et al, [1993,eng] 48-820
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Measuring the compressive strength of ice. Kovacs, A., [1993,eng] 48-3494
Model ice developed at the HSVA ice tank. Evers, K.U., et al, [1993,eng] 48-173
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Porosity effects on measured strength of warm ice. Fransson, L., et al, [1993,eng] 48-89
Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] 48-2876

Ice detection

95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] 48-3673
Altimeter Sea Ice Workshop, Feb. 15-16, 1990. Hawkins, J.D., ed, [1990,eng] 48-1481
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] 48-1704
Application of MOS-1 MSR data for sea ice study. Cho, K., et al, [1990,jpn] 48-4683
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] 48-1291
Arctic sea ice microwave signature and geophysical processes study. Onstott, R.G., et al, [1993,eng] 48-1693
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Capacitive ice detector for aircraft. Pruzan, D.A., et al, [1993,eng] 48-2638
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] 48-2354
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] 48-1347
Data analysis of icing measurements in Iceland. Eliasson, Á.J., et al, [1993,eng] 48-845
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] 48-1721
Detection of water on road surface by the polarized light. Kimura, T., [1993,jpn] 48-1851
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] 48-1065
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] 48-1689
Dynamic local thresholding technique for sea ice classification. Haverkamp, D., et al, [1993,eng] 48-1694
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] 48-1686
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] 48-1056
Experimental investigation of passive infrared ice detection for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-4871
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Expulsive ice detector for aircraft or watercraft rigging. Goldberg, J.I., et al, [1993,eng] 48-4416
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] 48-1691
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] 48-1692
First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] 48-4471
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] 48-4752
Hydraulic conveying of snow and ice—development of a snow-fraction meter. Kitahara, T., et al, [1993,jpn] 48-3184
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] 48-827
Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] 48-1698
Ice thickness measurement system for the Icing Research Tunnel calibration. Gibson, T.L., et al, [1993,eng] 48-4889
Ice-detection system evaluation. Woodham, D., [1991,eng] 48-4896
Iceberg data from annual expeditions in the Barents Sea. Spring, W., et al, [1993,eng] 48-130
Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] 48-1064
Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] 48-3483
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993. [1993,eng] 48-1678
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] 48-4235
International Ice Patrol '94. Haines, R., [1994,eng] 48-2760
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92. Shuchman, R.A., et al, [1993,eng] 48-1695
Measurements of bergy bit and growler populations off Canada's east coast. Crocker, G.B., et al, [1994,eng] 48-5554
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756
Microwave and optical measurements of sea ice. Goeckel, D.L., et al, [1993,eng] 48-1089
Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992

Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] 48-1719
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452
Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] 48-4472
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
Observation of ice load of transmission line in Hungary. Csomor, M., et al, [1993,eng] 48-824
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] 48-1466
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] 48-1703
Passive infrared ice detection technique for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-1959
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] 48-128
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647
Polarimetric radar measurements of artificial sea ice during CRRELEX '88. Onstott, R.G., [1990,eng] 48-4747
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Preliminary study on ice shape tracing with a laser light sheet. Mercer, C.R., et al, [1993,eng] 48-2639
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] 48-3433
Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127
Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1700
Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] 48-2645
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] 48-752
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] 48-3474
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] 48-1197
Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] 48-1702
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] 48-1728
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] 48-3010
Results of a field test of six different ice warning systems. Scharsching, H., [1993,eng] 48-1204
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992. Spring, W., et al, [1993,eng] 48-129
Road surface temperature and road surroundings relations observed in thermal mapping. Kajiya, Y., et al, [1993,jpn] 48-1975
Rosemount freezing rain sensor. Stein, P., [1993,eng] 48-828
Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] 48-126
Satellite observations of oceans and ice. Jezek, K.C., et al, [1988,eng] 48-1467
Scatterometer measurements of arctic sea ice at C-band. Grandell, J., et al, [1993,eng] 48-1701
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] 48-3462
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] 48-2502
Suppression of sea-ice clutter and detection of targets. Chikara, S., et al, [1990,jpn] 48-4684
Synthetic dense media fabrication with application to sea ice. Porco, R.L., et al, [1993,eng] 48-1696
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Transcription of presentations. SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993, [1993,eng] 48-1107
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] 48-3447
Two-resistor ice detector. Khurgin, B., [1989,eng] 48-4081
Underwater frazil ice detector. Daly, S.F., et al, [1991,eng] 48-2221
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] 48-3446
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] 48-826
Wing/ground ice detection system for aircraft. Kunik, W.G., [1994,eng] 48-3109
Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1687

Ice deterioration
Dog sled safety on ice. Collins, J., [1994,eng] 48-3270
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156

Ice distribution
See [also]: Ice conditions; Sea ice distribution

Ice domes
See [also]: Pingos

Ice drift
See [also]: Drift

Ice drills
Air-deliverable, ice-penetrating sonobuoy. Feltz, L.V., et al, [1991,eng] 48-3664
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] 48-3598
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Borehole drilling for sewage disposal at Asuka Station, East Antarctica. Ishizawa, K., et al, [1994,eng] 48-5347
Borehole logging device at Dome F, Antarctica. Naruse, R., et al, [1994,eng] 48-5351
Ice auger extractor for retrieving augers or similar devices from a bore hole. Walsh, M.R., [1990,eng] 48-2168
Investigation of the ice cutting process by the rotary drill. Vasil'ev, N.I., et al, [1994,eng] 48-5339
New short borehole logging tool. Hansen, B.L., et al, [1994,eng] 48-5348
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Rapid deployment of camp facilities utilizing point-supported structures. Mimken, V.B., et al, [1994,eng] 48-5364
UCPH borehole logger. Gundestrup, N.S., et al, [1994,eng] 48-5349
See [also]: Ice coring drills

Ice edge
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] 48-4540
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Ammonium regeneration in the Scotia-Weddell Confluence area during Spring 1988. Goeyens, L., et al, [1991,eng] 48-3736
Anthropogenic lead in antarctic sea water. Flegal, A.R., et al, [1993,eng] 48-332
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Basal boundary conditions at the Greenland Ice Sheet margin. Souchez, R., et al, [1993,eng] 48-41
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] 48-4740
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] 48-1353
Collision events between adjacent ice floes driven by an ocean wave field. Rottier, P.J., et al, [1993,eng] 48-4355
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] 48-1689
Drift and spread of oil in broken ice—field experiment. Vefsnmo, S., et al, [1994,eng] 48-5567
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
Electromagnetic ice thickness sensor for marginal ice zone. Prinsenberg, S.J., et al, [1993,eng] 48-178
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] 48-5561
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] 48-1345
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] 48-2813
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92. Shuchman, R.A., et al, [1993,eng] 48-1695
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] 48-2824
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] 48-4734
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Minimum and maximum drift ice extent in the southern ocean in 1991. Romanov, A.A., [1992,eng] 48-732
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] 48-1815
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] 48-3458
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Particulars of weather and ice conditions in the Arctic in 1991. Kuraïov, V.K., et al, [1992,eng] 48-731
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] 48-4948
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Phytoplankton ice-edge blooms in the northwestern Weddell Sea. Lancelot, C., et al, [1993,eng] 48-596
R/V Polarstern Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] 48-3926
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Response of distinct ice floes to ocean gravity waves. Løset, S., et al, [1994,eng] 48-5563
Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] 48-1323
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
Sea-ice features interpreted in a combination of multi sensor data. Ono, N., [1990,jpn] 48-4878
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] 48-4034
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea. Anokhin, V.N., et al, [1992,rus] 48-2742
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] 48-3128
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989. Sato, K., et al, [1990,jpn] 48-4680
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211

Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] 48-5574
Vortex flows near the sea ice edge. Marchenko, A.V., et al, [1993,eng] 48-4216

Ice elasticity
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] 48-3250
Collision events between adjacent ice floes driven by an ocean wave field. Rottier, P.J., et al, [1993,eng] 48-4355
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1993,eng] 48-1044
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
Effect of transverse inhomogeneity on deformations and stresses in an ice cover. Nystrom, M., [1993,eng] 48-4326
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] 48-4333
Hi-E model ice—improving the elastic modulus of columnar model ice. Spencer, D., et al, [1994,eng] 48-5580
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
New method to obtain 3-D Green's functions for anisotropic solids. Wang, C.Y., et al, [1993,eng] 48-5016
Practical elastic moduli for polycrystalline ice. Derradji-Aouat, A., et al, [1994,eng] 48-3014
Preliminary measurements of acoustic emission in young artificial sea ice. Langhorne, P.J., et al, [1993,eng] 48-4335
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] 48-3971
Uniaxial compressive strength and elastic modulus of sea ice. Takeuchi, T., et al, [1993,eng] 48-4327

Ice electrical properties
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] 48-851
Capacitive ice detector for aircraft. Pruzan, D.A., et al, [1993,eng] 48-2638
Charge transfer during individual collisions in ice growing by riming. Avila, E.E., et al, [1991,eng] 48-3682
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] 48-5354
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al, [1994,eng] 48-3118
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] 48-1065
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] 48-1867
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
Effect of electric current on the adhesion of ice to metal piles. Paasivuori, P., et al, [1994,eng] 48-3965
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] 48-850
Electrical properties of ice. Petrenko, V.F., [1993,eng] 48-1000
Electromagnetic ice thickness sensor for marginal ice zone. Prinsenberg, S.J., et al, [1993,eng] 48-178
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] 48-1215
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] 48-4342
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] 48-4339
Influence of electric field on the properties of body-ice contact. Igoshin, V.A., et al, [1993,eng] 48-4320
Insulation properties of atmospheric iced insulators installed in high mountains. Sugawara, N., et al, [1993,eng] 48-848
Measurement on the dielectric properties of ice at HF, VHF and microwave frequencies. Fujita, S., et al, [1993,eng] 48-1712
Microwave and optical measurements of sea ice. Goeckel, D.L., et al, [1993,eng] 48-1089
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Polarimetric radar measurements of artificial sea ice during CRRELEX '88. Onstott, R.G., [1990,eng] 48-4747
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7. Watanabe, O., ed. NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992, [1993,eng] 48-1862
Properties of marine ice, a new ice type. Moore, J.C., et al, [1994,eng] 48-3303
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Synthetic dense media fabrication with application to sea ice. Porco, R.L., et al, [1993,eng] 48-1696
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050
Two-resistor ice detector. Khurgin, B., [1989,eng] 48-4081
Withstand voltage and flashover performance of iced insulators. Sugawara, N., et al, [1993,eng] 48-847

Ice erosion
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349
Initiation decision report—Arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
Structures to protect river banks against ice erosion. Androshchuk, V.V., et al, [1992,eng] 48-5518

Ice evaporation
See [also]: Ice sublimation

Ice floes
Air-ice interaction. Gao, D.Y., et al, [1992,eng] 48-2899
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Collision events between adjacent ice floes driven by an ocean wave field. Rottier, P.J., et al, [1993,eng] 48-4355
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] 48-4354
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
Experimental and numerical analysis of floating ice beam impact forces against a sloped structure. Coutermarsh, B.A., [1994,eng] 48-5148
Experimental study on the control of ice movement with a new design of ice boom. Enoki, K., et al, [1993,eng] 48-4352
Experimental study on the overtopping of breakwaters by ice floes and waves. Saeki, H., et al, [1993,eng] 48-156
Experiments of crushing interaction between ice floes. Sayed, M., et al, [1993,eng] 48-4357
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] 48-1692
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] 48-145
General sea ice conditions. Vinje, T., et al, [1992,eng] 48-2903
Helicopter ice field surveys. Erlingsson, B., et al, [1992,eng] 48-2902
Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet. Kvambekk, Å.S., [1992,eng] 48-2898
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-4360
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] 48-2824
Mechanics of natural deforming sea ice floes. Smirnov, V.N., [1993,eng] 48-96
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon. Enoki, K., et al, [1993,eng] 48-154
Modelling wave/ice interactions in the marginal ice zone. Rottier, P., [1990,eng] 48-775
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
Numerical simulation of pack ice movement using the momentum conservation method. Rheem, C.K., et al, [1993,jpn] 48-1052
Ocean-ice interactions. Löyning, T.B., et al, [1992,eng] 48-2900
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] 48-171
Physical properties and structure of a single ice floe. Danielson, A., et al, [1992,eng] 48-3769
Physical properties of the ice surface. Korsnes, R., et al, [1992,eng] 48-2901
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] 48-3993
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Response of distinct ice floes to ocean gravity waves. Løset, S., et al, [1994,eng] 48-5563
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Scale effects in distribution of the floe internal stresses. Sukhorukov, K.K., [1994,eng] 48-5583
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Splitting of ice floes. Dempsey, J.P., et al, [1993,eng] 48-88

Ice forecasting
Advancements in the LEWICE Ice Accretion Model. Wright, W.B., [1993,eng] 48-4886
Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] 48-4749
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Aircraft icing environment in wintertime, low ceiling conditions. Guttman, N.B., et al, [1985,eng] 48-5100
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] 48-856
Aircraft icing. Lansford, H., [1990,eng] 48-1921
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] 48-5613
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] 48-3964
Automated system of short term forecasts of the development, growth and breakup of ice cover and its practical application. Borshch, S.V., et al, [1992,rus] 48-1950
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
BLASIM: a computational tool to assess ice impact damage on engine blades. Reddy, E.S., et al, [1993,eng] 48-2640
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] 48-811
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] 48-4730
Comparison of selected models for estimating cable icing. McComber, P., et al, [1993,eng] 48-816
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] 48-1961
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] 48-179
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] 48-5631
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] 48-5607
Current issues in river ice forecasting. White, K.D., et al, [1993,eng] 48-686
Danish operational slippery-road-warning system and prospects for the future. Voldborg, H., [1993,eng] 48-1205
Deterministic multi-zone ice accretion modeling. Yamaguchi, K., et al, [1991,eng] 48-4872
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Development of a method for predicting snowfall intensity and compacted snow on roads. Funada, H., et al, [1993,jpn] 48-1852
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630

Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] 48-821
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] 48-813
Evaluation of accuracy for numerical sea ice forecast in the seas around Hokkaido. Sato, K., et al, [1990,jpn] 48-4681
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States. Krasiuk, V.S., et al, [1992,rus] 48-1954
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] 48-1547
Frigid zone ice dike prediction system. Wang, X.R., et al, [1994,eng] 48-5604
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] 48-4338
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
Ice accretion and performance degradation calculations with LEWICE/NS. Potapczuk, M.G., et al, [1993,eng] 48-4884
Ice accretion prediction for a typical commercial transport aircraft. Bidwell, C.S., [1993,eng] 48-4888
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] 48-5537
Ice certification of the Dornier 328 regional airliner. Welte, D., et al, [1991,eng] 48-3693
Ice conditions on Alaska's Beaufort Sea Coast: extending the observations. Metzner, R., et al, [1979,eng] 48-4142
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
Ice forecasting in the southern Okhotsk Sea. Toyota, T., et al, [1993,jpn] 48-1069
Ice formation on Ladoga Lake and its short term forecast. Sevast'ianova, N.V., [1992,rus] 48-1951
Ice jam breakup flood discharge on the Yellow River. Yang, L.F., et al, [1994,eng] 48-5542
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] 48-5606
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] 48-827
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] 48-5380
Icing relevant parameters from sounding of stratiform clouds. Hoffmann, H.E., et al, [1990,ger] 48-4862
Incompressible solver and ice accretion on an airfoil. Ok, H.N., [1994,eng] 48-3554
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] 48-4401
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] 48-4235
Laboratory and numerical studies of ice release. Sarraf, S., et al, [1994,eng] 48-5540
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] 48-810
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] 48-1952
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] 48-1549
Mathematical modeling of dynamic-thermodynamic behaviour of sea ice. Leppäranta, M., [1990,eng] 48-4687
Measurement of atmospheric radiation for winter road management. Shimizu, M., et al, [1993,eng] 48-1206
Measurements of bergy bit and growler populations off Canada's east coast. Crocker, G.B., et al, [1994,eng] 48-5554
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] 48-4232
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] 48-4228
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Method of long range forecasting of freezeup on rivers in Kazakhstan. Shmarova, I.N., [1992,rus] 48-1953
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, L., [1993,eng] 48-3066
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-3688
Monthly mean sea ice data from ice prediction models. Posey, P.G., et al, [1991,eng] 48-4731
National plan to improve aircraft icing forecasts.[1986,eng] 48-1127
Nested grid sea ice modelling. Christensen, F.T., et al, [1993,eng] 48-165
Numerical simulation of an icing event during WISP-90. Modica, G.D., et al, [1992,eng] 48-4748
Numerical simulation of ice jam progression in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5610
Numerical simulation of pack ice movement using the momentum conservation method. Rheem, C.K., et al, [1993,jpn] 48-1052
Numerical simulations of mesoscale rheology of broken ice fields. Frederking, R.M.W., et al, [1993,eng] 48-166
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] 48-2642
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center. Preller, R.H., et al, [1991,eng] 48-4732
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471
Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] 48-171
Particle trajectory computer program for icing analysis of axisymmetric bodies. Frost, W., et al, [1992,eng] 48-4861
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] 48-5609
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] 48-5608
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] 48-823
Possibility of one-month forecast of sea ice. Kano, Y., et al, [1993,jpn] 48-1068
Prediction of bow spray frequency for a naval combatant. Lebiedzinski, K., et al, [1993,eng] 48-169
Prediction of ice accretion on a swept NACA 0012 airfoil. Reehorst, A.L., [1992,eng] 48-4858
Prediction of ice loads on a mast using general weather data. Sundin, E., [1994,eng] 48-5573
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] 48-5535
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] 48-3474
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] 48-3010
Review of icing research at the Royal Aerospace Establishment. Gent, R.W., [1991,eng] 48-3689
Rime-, mixed- and glaze-ice evaluations of three scaling laws. Anderson, D.N., [1994,eng] 48-4890
River ice investigations in Norwegian watercourses—a review. Asvall, R.P., [1994,eng] 48-5536
Road surface temperature and road surroundings relations observed in thermal mapping. Kajiya, Y., et al, [1993,jpn] 48-1975
Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] 48-3465
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] 48-812
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] 48-5379
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] 48-2502
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] 48-809
Synthetic aperture radar imagery for operational ice analysis. Fetterer, F., et al, [1991,eng] 48-4737
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] 48-5600
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Three-dimensional time-dependent ship icing model. Zakrzewski, W.P., et al, [1992,eng] 48-172
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5611
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] 48-3545
Use of numerical methods in ice conditions examination. Pokrashenko, S.A., [1993,eng] 48-1090
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] 48-4330
Winter highway maintenance data, Vol.2. Grenney, W.J., et al, [1993,eng] 48-1847

Ice formation

Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Altitude variations in ice formation zones on glaciers in Central Tien Shan. Golubev, V.N., et al, [1992,rus] 48-1395
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Correction to paper by S.G. Warren et al. Warren, S.G., et al, [1993,eng] 48-1150
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Current issues in river ice forecasting. White, K.D., et al, [1993,eng] 48-686
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] 48-1895
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] 48-864
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Freezing of water flow in a horizontal cooled tube. Fukusako, S., et al, [1993,eng] 48-865
Freezing of water in a closed circular tube. Sugawara, M., et al, [1993,eng] 48-868
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] 48-2155
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Ice accretion on trash racks in supercooled flows. Part 1: icing. Horjen, I., [1994,eng] 48-5596
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice formation in steep rivers. Tesaker, E., [1994,eng] 48-5601

Ice formation on Ladoga Lake and its short term forecast. Sevast'ianova, N.V., [1992,rus] 48-1951
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] 48-2451
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] 48-4821
Ice spikes—can you explain them. Perry, H.F., [1993,eng] 48-316
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Ice-forming properties of organic reagents. IAtsimirskii, V.K., et al, [1989,eng] 48-3748
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1429
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] 48-2598
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] 48-3625
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] 48-520
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Mixed layer dynamics in the onset of freezing. Claes, D.C., [1990,eng] 48-3668
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] 48-5297
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] 48-1253
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Nucleation of ice. Vali, G., [1991,eng] 48-1119
On the boundary layer changes during the sea ice formation. Kodama, Y., et al, [1993,eng] 48-1074
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Overburden pressure and ice formation in clay. Wang, J.C., et al, [1993,chi] 48-1433
Pellet injection technology. Combs, S.K., [1993,eng] 48-1762
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Phytoplankton variations in Weddell Sea ice formation. Gleitz, M., et al, [1993,eng] 48-2411
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] 48-4105
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993. [1993,eng] 48-857
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Reactive transport of suspended particles: mechanisms and modeling. Mercier, R.S., [1985,eng] 48-4895
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Snow and ice in the publications of the Canadian Institute, 1852-1914. Adams, P., [1993,eng] 48-2943
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866
Studies in ice mechanics. Kämäräinen, J., [1993,eng] 48-4904
Studies on freezing and thawing of flat ice on the water surface. Nakatsuka, S., et al, [1993,jpn] 48-3177
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] 48-5379
Studying columnar ice. Gorbunov, A.P., et al, [1992,rus] 48-4462
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] 48-5600
Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600
Thermal control of freezing processes with predetermined rate of freezing. Lin, S., [1993,eng] 48-897
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Unusual ice formations. Bjørbaek, G., [1994,eng] 48-4769
Water migration and ice formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1428
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090
See [also]: Freezing; Icing; Sea water freezing; Spray freezing

Ice formation indicators
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756

Ice free areas
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173

Ice free reaches
See [also]: Polynyas

Ice friction
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5624
Analysis of ice rubble shear strength data. Chao, J.C., [1993,eng] 48-4331
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] 48-4354
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] 48-1035
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] 48-4969
Experiments of crushing interaction between ice floes. Sayed, M., et al, [1993,eng] 48-4357
Factors influencing the coefficient of friction between sea ice and various materials. Nakazawa, N., et al, [1993,eng] 48-95
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Influence of below-freezing temperatures on the shear behavior of wet rock joints. Park, Y.J., [1992,eng] 48-3528
Influence of electric field on the properties of body-ice contact. Igoshin, V.A., et al, [1993,eng] 48-4320
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Laboratory investigations of ice-structure contact. Tuhkuri, J., [1993,eng] 48-151
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323
Model for ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-148
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679
See [also]: Metal ice friction; Plastics ice friction; Rubber ice friction; Wood ice friction

Ice gouging
See [also]: Ice scoring

Ice growth
2D and 3D modelling of ice accretion on wires. Porcú, F., et al, [1993,eng] 48-818
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
Dependence of segregation potential on the thermal and hydraulic conditions predicted by model M_1. Nakano, Y., [1994,eng] 48-5151
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] 48-3255
Growth rates of icicles. Maeno, N., et al, [1994,eng] 48-5168
Ice cover of the Arctic basin. Romanov, I.P., [1992,rus] 48-4148
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] 48-4401
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice: Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Level ice thickness and multiyear drift in the Arctic. Mironov, E.U., [1994,eng] 48-5603
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] 48-5123
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] 48-437
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] 48-3819
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] 48-2834
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Simulation of icicle growth using a 3D random walk model. Szilder, K., et al, [1993,eng] 48-817
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] 48-5581
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] 48-5379
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152
See [also]: Ice accretion; Icing rate

Ice hardness
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001

Ice heat flux
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] 48-864
Freezing of water flow in a horizontal cooled tube. Fukusako, S., et al, [1993,eng] 48-865
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599

Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Melting at the leading edge of a river ice cover. Zhang, X.T., [1992,eng] 48-804
Mixed layer dynamics in the onset of freezing. Claes, D.C., [1990,eng] 48-3668
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896
Science of snow and ice (7). Inoue, M., [1987,jpn] 48-268
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] 48-3128
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156
Studies on freezing and thawing of flat ice on the water surface. Nakatsuka, S., et al, [1993,jpn] 48-3177
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Thermal control of freezing processes with predetermined rate of freezing. Lin, S., [1993,eng] 48-897
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775

Ice heat loss
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605

Ice II-IX
See [also]: High pressure ice

Ice impurities
See [also]: Impurities

Ice islands
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
History of Hobson's Choice Ice I. Jeffries, M.O., et al, [1993,eng] 48-898
Ice-covered regions in international law. Joyner, C.C., [1991,eng] 48-998
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Level ice thickness and multiyear drift in the Arctic. Mironov, E.U., [1994,eng] 48-5603
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Method of repairing cracks in ice mass. Nazarov, V.D., et al, [1992,eng] 48-5529

Ice jams
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] 48-5612
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] 48-5607
Current issues in river ice forecasting. White, K.D., et al, [1993,eng] 48-686
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Frigid zone ice dike prediction system. Wang, X.R., et al, [1994,eng] 48-5604
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] 48-5537
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice jam breakup flood discharge on the Yellow River. Yang, L.F., et al, [1994,eng] 48-5542
Ice jam data collection. White, K.D., et al, [1994,eng] 48-5406
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] 48-5606
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Kinematic model of river ice motion during dynamic breakup. Ferrick, M.G., et al, [1993,eng] 48-1621
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] 48-1559
Numerical simulation of ice jam progression in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5610
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] 48-5609
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] 48-5608
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] 48-5535
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] 48-2961
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] 48-1545
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] 48-3359
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Study on frazil and anchor ice processes and development of a river ice model. Wang, D.S., [1994,eng] 48-3547
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5611
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] 48-3545

Ice lenses
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] 48-391
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave. Fowler, A.C., et al, [1993,eng] 48-5205
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] 48-461
Dependence of segregation potential on the thermal and hydraulic conditions predicted by model M_1. Nakano, Y., [1994,eng] 48-5151
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] 48-5033
Experimental studies on ice segregation and the modes of frost heaving. Chen, R.J., et al, [1993,eng] 48-5195
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] 48-4480
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] 48-2443
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis. Nakano, Y., et al, [1994,eng] 48-3793
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] 48-4821
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] 48-5191
Mechanisms of layer structures growing during ground freezing Gorelik, IA., et al, [1993,eng] 48-52[illegible]
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] 48-5190
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] 48-386
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] 48-437
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750

Ice loads
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5624
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990, [1990,eng] 48-4664
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] 48-851
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] 48-5548
Adfreeze bond strength between sea ice and materials used for offshore structures. Hara, F., et al, [1994,eng] 48-3988
Adverse aerodynamic impact of leading-edge ice buildups. Lynch, F.T., et al, [1991,eng] 48-3691
Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] 48-3695
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] 48-3694
AGARD symposium on effects of adverse weather on aerodynamics. Reinmann, J.J., [1991,eng] 48-3683
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] 48-856
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Analysis of spatial heterogeneity of ultimate ice compressive strength. Surkov, G.A., et al, [1993,eng] 48-4329
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] 48-140
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] 48-5612
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] 48-3964
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
BLASIM: a computational tool to assess ice impact damage on engine blades. Reddy, E.S., et al, [1993,eng] 48-2640
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration. Cain, G.E., et al, [1994,eng] 48-3108
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] 48-91
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] 48-5602
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] 48-5618
Citation analysis of ice-structure interaction conference papers. Muhonen, A., [1994,eng] 48-5566
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] 48-811
Comparison of selected models for estimating cable icing. McComber, P., et al, [1993,eng] 48-816
Compression tests on freshwater and sea ice samples. Kovacs, A., [1993,eng] 48-93
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] 48-5589
Computation of sheet ice and ridge ice forces on a faceted cone. Wang, Z., et al, [1993,eng] 48-152
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] 48-142
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] 48-1961
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] 48-4322
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] 48-4332
Creep deflection of ice plate under variable loading. Wu, Z., et al, [1994,eng] 48-3016
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] 48-4334
Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] 48-841
Data analysis of icing measurements in Iceland. Elfasson, Á.J., et al, [1993,eng] 48-845
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] 48-3024
Design concepts for Sakhalin offshore production platforms. Gulati, K.C., [1993,eng] 48-139
Design of icebreaker bows. Herkens, H., [1993,eng] 48-104
Designing ice-resistant structures according to the limit strength criterion. Appolonov, E.M., [1992,rus] 48-749
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1993,eng] 48-1044
Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Development of a new type of silicone rubber phase spacer. Kato, J., et al, [1993,eng] 48-849

Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] 48-4354
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures. Matskevich, D.G., [1994,eng] 48-3028
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] 48-3809
Dynamic model of ice-structure interaction. Bekker, A.T., et al, [1993,eng] 48-1054
Earthquake response of offshore structures in sea ice (part 4). Adachi, H., et al, [1990,jpn] 48-4669
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] 48-1035
Effect of Bohai ice crushing strength on vertical structures. Zhang, M.Y., et al, [1993,chi] 48-2096
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Effect of density variations in models of rime ice accretion on overhead line conductors. Skelton, L., et al, [1993,eng] 48-820
Effect of hoar-frosted wings on the Fokker 50 take-off characteristics. Van Hengst, J., et al, [1991,eng] 48-3692
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] 48-832
Effect of lateral ice pressure on ship resistance. Spencer, D.S., et al, [1993,eng] 48-112
Effect of scale on the indentation resistance of ice. Frederking, R.M.W., [1993,eng] 48-90
Effect of transverse inhomogeneity on deformations and stresses in an ice cover. Nystrom, M., [1993,eng] 48-4326
Effect of wing ice contamination on essential flight characteristics. Brumby, R.E., [1991,eng] 48-3685
Effects of adverse weather on aerodynamics.[1991,eng] 48-3684
Effects of frost on wing aerodynamics and take-off performance. Kind, R.J., et al, [1991,eng] 48-3687
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] 48-4333
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] 48-850
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] 48-3666
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] 48-821
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] 48-813
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] 48-5586
Experimental study of ice forces on multi-legged structures. Kato, K., et al, [1990,jpn] 48-4678
Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] 48-4317
Experimental study of pressure ridge modeling and indentation tests. Tsuchida, Y., et al, [1993,jpn] 48-1032
Experimental study on local ice pressures acting on structures. Tozawa, S., et al, [1993,jpn] 48-1038
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Experiments of crushing interaction between ice floes. Sayed, M., et al, [1993,eng] 48-4357
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Factors influencing the coefficient of friction between sea ice and various materials. Nakazawa, N., et al, [1993,eng] 48-95
Failure modes in compressed ice. Buck, S.E., et al, [1994,eng] 48-5584
Failure of fresh-water granular ice under multiaxial compressive loading. Weiss, J., et al, [1994,eng] 48-5588
Field tests for iceberg impact loading. Bruneau, S.E., et al, [1994,eng] 48-5556
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] 48-167
Finite element modelli ng of damage processes in ice-structure interaction. Xiao, J. [1991,eng] 48-802
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] 48-4342
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] 48-145
Freezing of water in a closed circular tube. Sugawara, M., et al, [1993,eng] 48-868
Freezing precipitation on lifting surfaces. Oleskiw, M.M., [1991,eng] 48-4864
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Global ice loads on arctic structures interpreted from foundation displacements. Hewitt, K.J., et al, [1994,eng] 48-3363
Gravity base structure for an offshore platform in arctic regions. Barbaras, G.A.A., et al, [1990,eng] 48-2175
Helicopter icing in VMC below low stratus clouds. Fuchs, W., [1993,eng] 48-4340
Helicopter rotor performance in icing conditions. Britton, R.K., [1992,eng] 48-4857
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] 48-4338
Hungarian icing activity survey. Krómer, I., [1993,eng] 48-808
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] 48-120
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice accretion and performance degradation calculations with LEWICE/NS. Potapczuk, M.G., et al, [1993,eng] 48-4884
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341
Ice accretion on trash racks in supercooled flows. Part 1: icing. Horjen, I., [1994,eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] 48-5597
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice accumulation characteristics on Hydro-Quebec HV insulators. Drapeau, J.F., et al, [1993,eng] 48-846
Ice certification of the Dornier 328 regional airliner. Welte, D., et al, [1991,eng] 48-3693
Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
Ice force design and measurement of a conical structure. Määttänen, M., [1994,eng] 48-5577
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] 48-1037
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice impact on ship hulls. Hieronymi, E., [1993,eng] 48-116
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Ice load distribution on a faceted conical structure. Timco, G.W., et al, [1993,eng] 48-150
Ice load distribution on an icebreaker bow. Kayo, Y., [1993,eng] 48-118
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Ice load measurements on board the cutter M.S. *Uisko*. Kivimaa, S., [1993,eng] 48-119
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] 48-827
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] 48-5559
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-4316
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice loads on multifaceted conical structures. Croasdale, K.R., et al, [1993,eng] 48-138
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] 48-829
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] 48-5555
Ice shape and performance for a multi-element airfoil. Berkowitz, B.M., et al, [1991,eng] 48-4859
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Ice wedge dynamics and local crushing. McKenna, R.F., et al, [1993,eng] 48-94
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] 48-5558
Iceload investigations on insulators and aerial warning balls for overhead lines. Greisert, K., et al, [1993,eng] 48-833
Icing effects on aircraft stability and control. Ratvasky, T.P., et al, [1993,eng] 48-4879
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] 48-4339
Icing study for a future suspended bridge at Montmorency Falls. McComber, P., et al, [1993,eng] 48-2971
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] 48-854
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
In situ investigations of the shore-ice-grounded hummock interaction. Sukhorukov, K.K., et al, [1994,eng] 48-5582
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] 48-5560
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Influence of specimen geometry on the fracture toughness of freshwater ice. Stehn, L.M., et al, [1994,eng] 48-3969
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Insulation properties of atmospheric iced insulators installed in high mountains. Sugawara, N., et al, [1993,eng] 48-848
Interaction between ice and propeller. Jussila, M., et al, [1991,eng] 48-4892
Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] 48-843
Investigation into the effects of ice cover parameters upon ship resistance. Alekseev, IU.N., et al, [1994,eng] 48-3950
Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] 48-3700
Laboratory investigations of ice-structure contact. Tuhkuri, J., [1993,eng] 48-151
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Laboratory tests of ship structures under ice loading. Vols. 2 and 3. Tuhkuri, J., [1993,eng] 48-1963
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al, [1993,eng] 48-143
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al, [1994,eng] 48-5568
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] 48-3972
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] 48-810
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] 48-1039
Mechanics of natural deforming sea ice floes. Smirnov, V.N., [1993,eng] 48-96
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] 48-4232
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] 48-4228
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Method for evaluation of first-year ice hummock strength. Surkov, G.A., et al, [1993,eng] 48-4336
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Method to estimate icing loads on overhead lines. Pezard, J., [1993,eng] 48-831
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] 48-834
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] 48-3066
Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] 48-4158
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Model for ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-148
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] 48-144
Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116
Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-3688
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Modelling dynamic ice forces. Brown, T.G., [1994,eng] 48-5614
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] 48-3701
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-2129
Modelling of rime icing of wind turbines. Finstad, K.J., et al, [1993,eng] 48-822
Monitoring of snow and ice accretion on overhead line test spans. Wareing, J.B., et al, [1993,eng] 48-836
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] 48-4292

Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] 48-5616
Nonlinear primary and secondary creep deflection of ice plate under constant loading. Wu, Z.Q., et al, [1993,eng] 48-99
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170
Numerical modeling of the plane static deformation in ice cover. Danilenko, V.I., et al, [1993,eng] 48-4324
Observation of ice load of transmission line in Hungary. Csomor, M., et al, [1993,eng] 48-824
Observations on falling of ice from conductor of transmission line. Csomor, M., et al, [1993,eng] 48-814
Offshore structures for arctic oil and gas operations. Krahl, R.B., et al, [1990,eng] 48-4685
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] 48-5549
Overhead electric line poles protection against mechanical overloads. Goia, L.M., et al, [1993,eng] 48-844
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] 48-4887
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Parametric sensitivity in ice force calculation models. Timco, G.W., et al, [1994,eng] 48-5575
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Physico-mechanical model of self-excited processes by sea ice compacting. Smirnov, V.N., et al, [1993,eng] 48-4328
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] 48-823
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] 48-3945
Porosity effects on measured strength of warm ice. Fransson, L., et al, [1993,eng] 48-89
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
Prediction of ice loads on a mast using general weather data. Sundin, E., [1994,eng] 48-5573
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] 48-5239
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] 48-86
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] 48-5535
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Propeller-ice impact process. Veitch, B., et al, [1993,eng] 48-123
Proposal of proper choice of ice tolerant coating films. Arita, M., et al, [1993,jpn] 48-1042
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Protection of antennas on telecommunication masts and towers for atmospheric icing. Stöttrup-Andersen, U., [1993,eng] 48-852
Protection of overhead line conductors against mechanical overloads. Goia, L.M., [1993,eng] 48-837
Quasi-static thermal stresses in the sea ice. Smirnov, V.N., et al, [1994,eng] 48-5578
Rate effects in brittle ice crushing. Kärnä, T., et al, [1993,eng] 48-92
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Results from full scale measuring of ice and wind loads on a high mast in Sweden. Fahleson, C., [1993,eng] 48-853
Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] 48-5620
Review of icing research at the Royal Aerospace Establishment. Gent, R.W., [1991,eng] 48-3689
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Root damage analysis of aircraft engine blade subject to ice impact. Reddy, E.S., et al, [1992,eng] 48-4882
Rosemount freezing rain sensor. Stein, P., [1993,eng] 48-828
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
Scale effects in distribution of the floe internal stresses. Sukhorukov, K.K., [1994,eng] 48-5583
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Sea ice strength variability due to various ice column axis orientation. Polomoshnov, A.M., et al, [1993,eng] 48-4337
Selection of standard level for sea ice strength. Truskov, P.A., et al, [1993,eng] 48-1036
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] 48-4891
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] 48-168
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Ship speed and ice submerging resistance. Kämäräinen, J., [1993,eng] 48-4903
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] 48-4290
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] 48-87
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Snow loads on transmission and distribution lines in Alaska. Peabody, A.B., [1993,eng] 48-842
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] 48-812
Splitting of ice floes. Dempsey, J.P., et al, [1993,eng] 48-88
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] 48-5581
Strength parameters of hummocks: field observations and laboratory tests. Truskov, P.A., et al, [1993,eng] 48-1033
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] 48-1235
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336
Study of fracture toughness and fatigue of freshwater ice. Weber, L.J., [1994,eng] 48-3546
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Study on ice forces acting on floating structures. Taguchi, Y., et al, [1990,jpn] 48-4677
Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] 48-149
Superstructure spray and ice accretion on a large U.S. Coast Guard cutter. Ryerson, C.C., [1993,eng] 48-855
Surface roughness due to residual ice in the use of low power deicing systems. Shin, J.W., et al, [1993,eng] 48-4881
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] 48-809
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-5619
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] 48-5629
Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] 48-5576
Three-dimensional time-dependent ship icing model. Zakrzewski, W.P., et al, [1993,eng] 48-172
Total ice forces on multi-legged offshore structures. Takeuchi, T., et al, [1993,eng] 48-4318
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] 48-3971
Uniaxial compressive strength and elastic modulus of sea ice. Takeuchi, T., et al, [1993,eng] 48-4327
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
Warning system for snow accretion on power lines. Wakamatsu, K., et al, [1993,eng] 48-838
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] 48-1051
Wind and ice load monitoring on a test line. Haldar, A.K., et al, [1993,eng] 48-839
Wind speed effect on transmission line icing. Csomor, M., et al, [1993,eng] 48-815
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] 48-826
Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690
Withstand voltage and flashover performance of iced insulators. Sugawara, N., et al, [1993,eng] 48-847

Ice makers

Development of a large-volume snow to ice converter. Miyagawa, M., [1988,jpn] 48-661
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] 48-2506
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Reciprocating snow to ice converter; density of the input snow. Kobiyama, M., et al, [1993,jpn] 48-3174
Snow to ice converter. Narita, M., [1988,jpn] 48-662

Ice mechanics

Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] 48-3250
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] 48-3013
Canadian Habbakuk Project; a project of the National Research Council of Canada. Gold, L.W., [1990,eng] 48-311
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] 48-4481
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] 48-4322
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] 48-3251
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Effects of air-hydrate crystals on ice grain growth. Uchida, T., et al, [1993,eng] 48-1864
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] 48-4289
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Kinematic model of river ice motion during dynamic breakup. Ferrick, M.G., et al, [1993,eng] 48-1621
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al, [1992,rus] 48-3723
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] 48-1559
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] 48-3574

Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Proceedings. Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] 48-2219
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Report of the IAHR Working Group on Ice Forces on Structures. Wessels, E., [1992,eng] 48-1561
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures. McKenna, R.F., [1992,eng] 48-1562
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] 48-68
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction. Curtin, T.B., ed, [1991,eng] 48-1480
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] 48-1560
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] 48-4290
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] 48-1539
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] 48-3545
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730

Ice melting

Aircraft deicing apparatus utilizing heat distributing means. Byles, J.D., [1991,eng] 48-1941
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
Basal melting of antarctic ice shelves. Minale, M., et al, [1993,eng] 48-2410
Bottom melting on FRIS: results from different methods. Grosfeld, K., et al, [1992,eng] 48-237
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] 48-1854
Clay-mineral flux in the Fram Strait and Norwegian Sea. Bern[illegible], H., et al, [1994,eng] 48-3[illegible]7
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] 48-3612
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Deicing compositions. Hansen, C.N., [1986,eng] 48-4273
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] 48-3390
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] 48-1075
Electrically heatable windshield. Osada, K., et al, [1991,eng] 48-1733
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] 48-3162
End of the ice age. Nisbet, E.G., [1990,eng] 48-1747
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Experimental study on melting process of ice containing conductive copper solids. Hirasawa, Y., et al, [1993,eng] 48-894
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
Ice and snow melt. Greenwald, S., [1986,eng] 48-4274
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] 48-4807
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] 48-319
Interaction of hydrophilic liquid with ice. Nagornov, O.V., et al, [1993,eng] 48-875
Investigation of sea ice interaction with SHF-electromagnetic field. Gavrilo, V.P., et al, [1993,eng] 48-1903
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects. Okinshevich, V.V., [1990,rus] 48-306
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Melting at the leading edge of a river ice cover. Zhang, X.T., [1992,eng] 48-804
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Melting windshield ice.[1994,eng] 48-3616
Melting with salt and heating with ice. Bohren, C., [1994,eng] 48-3239
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
Piping apparatus for melting snow and ice. Ohashi, K., [1989,eng] 48-4080
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] 48-620
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Some topics on melting heat transfer problems. Fukusako, S., et al, [1993,eng] 48-858
Studies on freezing and thawing of flat ice on the water surface. Nakatsuka, S., et al, [1993,jpn] 48-3177
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K., [1993,ger] 48-1113
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

Ice metal friction

See [also]: Metal ice friction

Ice microstructure

Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] 48-4322
Dislocation/grain boundary interactions in ice Ih under creep conditions. Liu, F.P., et al, [1994,eng] 48-5587
In-situ synchrotron x-ray topographic studies of polycrystalline ice. Baker, I., et al, [1994,eng] 48-5579
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Modelling the deformation and failure of ice grain assemblies. McKenna, R.F., [1993,eng] 48-4398
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] 48-2749
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] 48-68
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Studies in ice mechanics. Kämäräinen, J., [1993,eng] 48-4904
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] 48-1855
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894

Ice models

2D and 3D modelling of ice accretion on wires. Porcú, F., et al, [1993,eng] 48-818
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] 48-3250
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Arctic radiative fluxes modeled from the ISCCP-C2 data set. 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] 48-3013
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] 48-4730
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Creep deflection of ice plate under variable loading. Wu, Z., et al, [1994,eng] 48-3016
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] 48-3251
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures. Matskevich, D.G., [1994,eng] 48-3028
Early Pliocene climate and ice-sheet modeling. Prentice, M.L., et al, [1992,eng] 48-2617
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
Estimating ice-sheet response to climate change. Hindmarsh, R.C.A., [1992,eng] 48-784
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] 48-3255
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Ice shelves and icebergs—an overview. Oerlemans, J., [1989,eng] 48-1661
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Kinematic model of river ice motion during dynamic breakup. Ferrick, M.G., et al, [1993,eng] 48-1621

Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] 48-1657
Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange. Crowley, T.J., et al, [1988,eng] 48-1658
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] 48-1549
Mathematical modeling of dynamic-thermodynamic behaviour of sea ice. Leppäranta, M., [1990,eng] 48-4687
Model ice developed at the HSVA ice tank. Evers, K.U., et al, [1993,eng] 48-173
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines. De Veaux, R.D., et al, [1993,eng] 48-2244
Modelling dynamic ice forces. Brown, T.G., [1994,eng] 48-5614
Modelling ice sheet and climate changes through the ice ages. Budd, W.F. et al, [1993,eng] 48-4195
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] 48-1909
Monthly mean sea ice data from ice prediction models. Posey, P.G., et al, [1991,eng] 48-4731
Nested grid sea ice modelling. Christensen, F.T., et al, [1993,eng] 48-165
New results of structural investigations in the central part of the FRIS. Blindow, N., et al, [1992,eng] 48-236
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] 48-3548
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
Numerical simulations of mesoscale rheology of broken ice fields. Frederking, R.M.W., et al, [1993,eng] 48-166
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions. Huybrechts, P., [1993,eng] 48-2140
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center. Preller, R.H., et al, [1991,eng] 48-4732
Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] 48-171
Parametric sensitivity in ice force calculation models. Timco, G.W., et al, [1994,eng] 48-5575
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] 48-823
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] 48-4181
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] 48-3301
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] 48-1560
Simulation of icicle growth using a 3D random walk model. Szilder, K., et al, [1993,eng] 48-817
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] 48-3015
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] 48-3128
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] 48-3359
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] 48-2534
Study on frazil and anchor ice processes and development of a river ice model. Wang, D.S., [1994,eng] 48-3547
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-3017
Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] 48-2876
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] 48-3545
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] 48-4330

Ice mounds

See [also]: Frost mounds

Ice navigation

3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
5 years operational experience with the Swedish icebreaker *Oden*. Backman, A., [1994,eng] 48-4306
7 MW multi purpose heavy duty icebreaker. Kleemann, A., [1993,eng] 48-105
Arctic cargo transportation economic evaluation. Backlund, A., et al, [1993,eng] 48-101
Arctic research vessel design would expand science prospects. Elsner, R., et al, [1993,eng] 48-2160
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Azimuth thrusters in ice breaking technology. Savikurki, J., et al, [1993,eng] 48-110
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Classification of ships by icebreaking capability. Tsoĭ, L.G., [1993,eng] 48-115
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] 48-5631
Design of icebreaker bows. Herkens, H., [1993,eng] 48-104
Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630
Development of multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-113
Division into zones of the Northern Sea Route by difficulty and safety of navigation. Buzuev, A.IA., et al, [1993,eng] 48-124
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Duration of navigation without icebreakers on the Northern Sea Route. Buzuev, A.IA., [1994,eng] 48-5572
Effect of lateral ice pressure on ship resistance. Spencer, D.S., et al, [1993,eng] 48-112
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Experimental investigations of some polar sailing problems. Katsman, F., et al, [1993,eng] 48-4347
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Feasibility study for an ice-capable oceanographic ship. Strasel, E.S., et al, [1993,eng] 48-4253
Fifteen years of arctic shipping—the lessons learned. Luce, M.P., et al, [1994,eng] 48-4309
Finland breaks the ice. Brigham, L.W., [1987,eng] 48-2338
Full scale deflection of ice by an icebreaker. Gagnon, R.E., et al, [1993,eng] 48-103
Full-scale observations of ship performance in ice. Kujala, P., et al, [1993,eng] 48-106
Hull for ice breaking ship. Hellmann, J.H., et al, [1993,eng] 48-5525
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] 48-120
Ice capability of the multipurpose icebreaker *Fennica*—full-scale results. Soininen, H., et al, [1993,eng] 48-111
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice flow behind an icebreaking vessel. Salmi, P., et al, [1993,eng] 48-109
Ice impact on ship hulls. Hieronymi, E., [1993,eng] 48-116
Ice load distribution on an icebreaker bow. Kayo, Y., [1993,eng] 48-118
Ice load measurements on board the cutter M.S. *Uisko*. Kivimaa, S., [1993,eng] 48-119
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Ice navigating capability in the Northern Sea Route. Likhomanov, V.A., et al, [1993,eng] 48-107
Ice propulsion of the icebreaker *Kapitan Sorokin* with conventional forebody. Tsoĭ, L.G., [1993,eng] 48-114
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] 48-4302
Icebreaker. Herkens, H., et al, [1989,eng] 48-4085
Improvement of traditional icebreaker hull lines. Tsoĭ, L.G., [1994,eng] 48-5628
Interaction of hovercraft icebreaker platforms with ice cover. Zuev, V.A., et al, [1994,eng] 48-3952
International Northern Sea Route Program. Løvås, S.M., et al, [1994,eng] 48-5593
Investigation into the effects of ice cover parameters upon ship resistance. Alekseev, IU.N., et al, [1994,eng] 48-3950
Joint ventures and the Soviet Arctic. Butler, W.E., [1990,eng] 48-2609
Law of the sea and the polar regions. Rothwell, D.R., et al, [1994,eng] 48-5120
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Master mariner's perspective on the performance of icebreakers. Toomey, P.R.M., [1994,eng] 48-4310
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Method for changing characteristics of ship and hull form of ice-breaking ship. Eronen, H., et al, [1992,eng] 48-5522
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] 48-4158
Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334
Multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-4345
Multipurpose icebreaker for the Finnish National Board of Navigation. Lohi, P., et al, [1993,eng] 48-4344
New generation Arktika class nuclear icebreaker feasibility study. Tsoĭ, L.G., [1994,eng] 48-4304
New research vessel for arctic research. Alexander, V., [1993,eng] 48-1027
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] 48-4292
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] 48-1779
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170
Oden-91 International Arctic Ocean Expedition. Travel report. Salmela, O., [1992,eng] 48-4894
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Performance of ice-navigating vessels in the northern Baltic in winter 1992. Pöntynen, H., [1992,eng] 48-2133
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] 48-4948
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] 48-86
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] 48-5535
Proceedings. Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992, [1993,eng] 48-1784
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Propeller-ice impact process. Veitch, B., et al, [1993,eng] 48-123
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Rudder/propulsion device arrangements on icegoing vessels. Bäckström, M., et al, [1993,eng] 48-102
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] 48-175
Sea, ice and rock: sailing and climbing above the Arctic Circle. Bonington, C., et al, [1993,eng] 48-1931
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] 48-3449
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155
Shallow draft Thyssen/Waas-icebreaker. Rupp, K.H., et al, [1993,eng] 48-108
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] 48-4891
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Ship reinforcement for negotiating ice. Tromso Skipsverft, [1992,eng] 48-4423

Ship speed and ice submerging resistance. Kämäräinen, J., [1993,eng] **48-4903**
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] **48-4290**
Ships' navigability in the ice-infested waters around the port of Abashiri. Narita, S., et al, [1990,jpn] **48-4676**
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] **48-2500**
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] **48-87**
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] **48-3336**
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] **48-174**
Study on the stem angle and icebreaking capability of icebreaking vessels. Choi, K.S., [1993,eng] **48-4346**
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] **48-605**
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskiĭ, A.V., et al, [1989,rus] **48-310**
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] **48-5629**
Transit capacity of the Northern Sea Route. Arikainen, A., [1992,eng] **48-728**
Variability in the hydrophysical fields near drifting icebergs and safe navigation. Volkov, V.A., et al, [1993,rus] **48-1904**
Via the Northern Sea Route all year round. Burkov, G.D., [1986,rus] **48-1091**

Ice needles

Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] **48-3820**
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] **48-136**
Stone trails on unstable slopes. Dumas, B., et al, [1993,eng] **48-1848**
Studying columnar ice. Gorbunov, A.P., et al, [1992,rus] **48-4462**
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] **48-5048**

Ice nuclei

Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] **48-2994**
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] **48-1879**
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] **48-1282**
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] **48-2477**
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] **48-4717**
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] **48-5058**
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] **48-3840**
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] **48-4478**
Ice-forming properties of organic reagents. IAtsimirskiĭ, V.K., et al, [1989,eng] **48-3748**
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] **48-2511**
Nucleation of ice. Vali, G., [1991,eng] **48-1119**
Solid particles in the snow crystal—on the ice nucleating ability of yellow sand. Sakurai, K., [1991,jpn] **48-3420**
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] **48-1765**
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] **48-2510**
Universal characteristic of ice-forming nuclei. Kim, N.S., et al, [1992,eng] **48-3765**
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] **48-4090**

Ice openings

1992 Arctic Leads Experiment: an overview of the meteorology. Wolfe, D.E., et al, [1993,eng] **48-2126**
Airborne studies of ocean-particle-cloud-interactions in the Arctic. Hobbs, P.V., [1993,eng] **48-2646**
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] **48-1719**
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] **48-1355**
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] **48-1118**
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] **48-1691**
Geophysical field area fraction estimation. Key, J.R., [1993,eng] **48-2161**
Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] **48-4752**
Lead distribution in the sea ice area in the Sea of Okhotsk and the Arctic. Enomoto, H., et al, [1990,eng] **48-4679**
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] **48-315**
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] **48-2135**
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] **48-2427**
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] **48-2148**
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] **48-1703**
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] **48-1326**
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] **48-1327**
Sea ice lead dynamics from ERS-1 SAR. Stern, H.L., et al, [1994,eng] **48-3448**
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] **48-4203**
See [also]: Polynyas

Ice optics

Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] **48-1012**
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] **48-3006**
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] **48-1347**
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] **48-5354**
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] **48-3002**
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] **48-3666**
First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] **48-4471**
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] **48-1082**
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] **48-4907**
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] **48-3197**
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] **48-3004**
Microwave and optical measurements of sea ice. Goeckel, D.L., et al, [1993,eng] **48-1089**
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] **48-2084**
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] **48-975**
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] **48-1703**
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] **48-1292**
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] **48-752**
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] **48-1750**
Spectral extinction coefficient of sea ice. Kishigami, H., et al, [1993,jpn] **48-1078**
Spectral light environment in sea ice. Kishino, M., [1993,eng] **48-1077**
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] **48-3234**
Use of a low-powered laser to measure crack front development. Weber, L.J., et al, [1993,eng] **48-98**

Ice override

Ice forces on cones from floes. Nevel, D.E., [1992,eng] **48-1550**
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] **48-1050**
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] **48-2704**
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] **48-3600**

Ice passing

Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] **48-1544**

Ice physics

Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] **48-3027**
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] **48-4025**
All about ice. Davey, R., et al, [1993,eng] **48-2759**
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] **48-3250**
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] **48-3011**
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] **48-2748**
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] **48-2999**
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] **48-3251**
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] **48-1335**
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] **48-5154**
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] **48-5032**
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] **48-4697**
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] **48-753**
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] **48-4969**
Electrical properties of ice. Petrenko, V.F., [1993,eng] **48-1000**
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] **48-1215**
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] **48-341**
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] **48-2380**
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] **48-5383**
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] **48-3762**
Growth rates of icicles. Maeno, N., et al, [1994,eng] **48-5168**
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] **48-342**
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] **48-1612**
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] **48-4703**
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] **48-946**
Ice shelves and icebergs—an overview. Oerlemans, J., [1989,eng] **48-1661**
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] **48-4807**
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] **48-2740**
Ice-core studies in the western Weddell Sea. Gow, A.J., et al, [1992,eng] **48-3771**
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] **48-1673**
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] **48-3338**
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] **48-2431**
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] **48-2350**
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] **48-5025**
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] **48-4**
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] **48-2449**
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] **48-4282**
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] **48-5373**
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] **48-2749**
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] **48-2594**
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] **48-1373**
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] **48-3620**
New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] **48-4718**
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] **48-3499**
Nucleation of ice. Vali, G., [1991,eng] **48-1119**
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] **48-3724**
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] **48-2051**
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] **48-2052**
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] **48-994**
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] **48-4925**
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] **48-2216**
Pellet injection technology. Combs, S.K., [1993,eng] **48-1762**
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] **48-2523**
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] **48-4812**
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] **48-3819**
Physical properties and structure of a single ice floe. Danielson, A., et al, [1992,eng] **48-3769**
Physical properties of the ice surface. Korsnes, R., et al, [1992,eng] **48-2901**
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] **48-5385**
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] **48-2092**
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] **48-3774**
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] **48-752**
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] **48-3939**
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] **48-2355**
Role of surface melting in ice skating. White, J.D., [1992,eng] **48-598**
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] **48-238**
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] **48-3770**

Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] 48-2204
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Structural transitions in amorphous water ice and astrophysical implications. Jenniskens, P., et al, [1994,eng] 48-5108
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] 48-2534
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] 48-5021
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] 48-2027
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

Ice pileup
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] 48-140
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] 48-142
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] 48-5555
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] 48-1051

Ice plasticity
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] 48-3830
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] 48-4333
Failure modes in compressed ice. Buck, S.E., et al, [1994,eng] 48-5584
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] 48-167
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] 48-4812
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001

Ice plastics friction
See [also]: Plastics ice friction

Ice pressure
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5624
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] 48-5548
Adfreeze bond strength between sea ice and materials used for offshore structures. Hara, F., et al, [1994,eng] 48-3988
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Analysis of spatial heterogeneity of ultimate ice compressive strength. Surkov, G.A., et al, [1993,eng] 48-4329
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] 48-140
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] 48-91
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] 48-5618
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] 48-3018
Coefficients of linear expansion of freezing soils. Mordovskii, S.D., et al, [1993,eng] 48-70
Compression tests on freshwater and sea ice samples. Kovacs, A., [1993,eng] 48-93
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] 48-5589
Computation of sheet ice and ridge ice forces on a faceted cone. Wang, Z., et al, [1993,eng] 48-152
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] 48-142
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] 48-4322
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al, [1994,eng] 48-5585
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] 48-4332
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] 48-4334
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1993,eng] 48-1044
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] 48-1035
Effect of Bohai ice crushing strength on vertical structures. Zhang, M.Y., et al, [1993,chi] 48-2096
Effect of lateral ice pressure on ship resistance. Spencer, D.S., et al, [1993,eng] 48-112
Effect of scale on the indentation resistance of ice. Frederking, R.M.W., [1993,eng] 48-90
Effect of transverse inhomogeneity on deformations and stresses in an ice cover. Nystrom, M., [1993,eng] 48-4326
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] 48-4333
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] 48-3666
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] 48-5586
Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] 48-4317
Experimental study of pressure ridge modeling and indentation tests. Tsuchida, Y., et al, [1993,jpn] 48-1032
Experimental study on local ice pressures acting on structures. Tozawa, S., et al, [1993,jpn] 48-1038
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Experiments of crushing interaction between ice floes. Sayed, M., et al, [1993,eng] 48-4357
Factors influencing the coefficient of friction between sea ice and various materials. Nakazawa, N., et al, [1993,eng] 48-95
Failure modes in compressed ice. Buck, S.E., et al, [1994,eng] 48-5584
Failure of fresh-water granular ice under multiaxial compressive loading. Weiss, J., et al, [1994,eng] 48-5588
Field tests for iceberg impact loading. Bruneau, S.E., et al, [1994,eng] 48-5556
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] 48-167
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] 48-145
Freezing of water in a closed circular tube. Sugawara, M., et al, [1993,eng] 48-868
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice force design and measurement of a conical structure. Määttänen, M., [1994,eng] 48-5577
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] 48-1037
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice impact on ship hulls. Hieronymi, E., [1993,eng] 48-116
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Ice load distribution on a faceted conical structure. Timco, G.W., et al, [1993,eng] 48-150
Ice load distribution on an icebreaker bow. Kayo, Y., [1993,eng] 48-118
Ice load measurements on board the cutter M.S. *Uisko*. Kivimaa, S., [1993,eng] 48-119
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] 48-5559
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-4316
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] 48-5555
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Ice wedge dynamics and local crushing. McKenna, R.F., et al, [1993,eng] 48-94
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] 48-5558
Impact forces between floes in the Newfoundland ice margin. McKenna, R.F., et al, [1993,eng] 48-146
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
In situ investigations of the shore-ice-grounded hummock interaction. Sukhorukov, K.K., et al, [1994,eng] 48-5582
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] 48-5560
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Interaction between ice and propeller. Jussila, M., et al, [1991,eng] 48-4892
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] 48-3700
Laboratory investigations of ice-structure contact. Tuhkuri, J., [1993,eng] 48-151
Laboratory tests of ship structures under ice loading. Vols. 2 and 3. Tuhkuri, J., [1993,eng] 48-1963
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al, [1993,eng] 48-143
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al, [1994,eng] 48-5568
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] 48-3972
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Method for evaluation of first-year ice hummock strength. Surkov, G.A., et al, [1993,eng] 48-4336
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] 48-4158
Model for ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-148
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] 48-144
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Modelling dynamic ice forces. Brown, T.G., [1994,eng] 48-5614
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] 48-3701
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-2129
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] 48-5616
Nonlinear primary and secondary creep deflection of ice plate under constant loading. Wu, Z.Q., et al, [1993,eng] 48-99
Numerical modeling of the plane static deformation in ice cover. Danilenko, V.I., et al, [1993,eng] 48-4324
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Parametric sensitivity in ice force calculation models. Timco, G.W., et al, [1994,eng] 48-5575
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Physico-mechanical model of self-excited processes by sea ice compacting. Smirnov, V.N., et al, [1993,eng] 48-4328
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] 48-5239

Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994. [1994,eng] **48-3012**

Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] **48-86**

Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] **48-4312**

Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] **48-5535**

Quasi-static thermal stresses in the sea ice. Smirnov, V.N., et al, [1994,eng] **48-5578**

Rate effects in brittle ice crushing. Kärnä, T., et al, [1993,eng] **48-92**

Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] **48-100**

Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] **48-448**

Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] **48-5620**

Scale effects in distribution of the floe internal stresses. Sukhorukov, K.K., [1994,eng] **48-5583**

Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] **48-5381**

Sea ice strength variability due to various ice column axis orientation. Polomoshnov, A.M., et al, [1993,eng] **48-4337**

Selection of standard level for sea ice strength. Truskov, P.A., et al, [1993,eng] **48-1036**

Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] **48-4891**

Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] **48-168**

Ship speed and ice submerging resistance. Kämäräinen, J., [1993,eng] **48-4903**

Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] **48-5581**

Strength parameters of hummocks: field observations and laboratory tests. Truskov, P.A., et al, [1993,eng] **48-1033**

Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] **48-1539**

Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] **48-4319**

Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] **48-407**

Subglacial investigations at Bondhusbreen, Folgefonn., Norway. Hagen, J.O., et al, [1993,eng] **48-2882**

Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] **48-149**

Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] **48-3017**

Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] **48-5619**

Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] **48-5629**

Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] **48-5576**

Total ice forces on multi-legged offshore structures. Takeuchi, T., et al, [1993,eng] **48-4318**

Uniaxial compressive strength and elastic modulus of sea ice. Takeuchi, T., et al, [1993,eng] **48-4327**

Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] **48-2679**

See [also]: Ice loads; Ice push; Pressure ridges

Ice pressure ridges

See [also]: Pressure ridges

Ice prevention

Aircraft deicer system. Manda, L.J., et al, [1993,eng] **48-1940**

Aircraft icing prevention. Czaplyski, V., [1993,eng] **48-2880**

Anti-frost system for a windshield of a motor vehicle. Tachimori, T., et al, [1990,eng] **48-2199**

Anti-frost system for motor vehicle windshield utilizing saturated steam calculator. Takada, H., [1991,eng] **48-2228**

Anti-icing coating compositions. Murase, H., [1989,eng] **48-1872**

Anti-icing system results on a NASA 0012 airfoil. Al-Khalil, K.M., et al, [1993,eng] **48-4883**

Anti-icing valve. Norris, R.M., et al, [1989,eng] **48-4363**

Anti-siphon frost free faucet. Enterante, F., et al, [1990,eng] **48-2182**

Avoiding aircraft icing. Horne, T.A., [1993,eng] **48-2881**

Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] **48-5602**

Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] **48-1520**

Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] **48-2236**

Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] **48-5055**

Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] **48-4063**

Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] **48-2597**

Electrothermal timed de-icing apparatus for aircraft air foils. Kugelman, M.M., et al, [1989,eng] **48-5521**

Experimental study on adfreezing strength of snow and ice against roofing materials. Watanabe, M., [1993,jpn] **48-1993**

Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] **48-867**

Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] **48-1452**

Frost free heat exchanger. Roberts, F.J., et al, [1989,eng] **48-4084**

Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] **48-1994**

Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] **48-4003**

Ice accretion on trash racks in supercooled flows. Part 2: anticing. Horjen, I., [1994,eng] **48-5597**

Ice control in northern harbors. Saeki, H., [1992,eng] **48-1534**

Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] **48-2451**

Icing-preventing coating film for cooling plate. Showa Aluminum Corporation, [1993,eng] **48-4430**

Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] **48-4122**

Insulated tunnel liner and rehabilitation system. Weholt, R.L., [1990,eng] **48-2165**

Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] **48-4400**

Low power deicer tests on a swept inlet component. Bond, T.H., et al, [1993,eng] **48-4880**

Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] **48-1549**

Method and equipment for maintaining ice-free locks. Pontynen, E., [1993,eng] **48-1656**

Method of making an integral heater for composite structure. Bayless, J.D., Jr., et al, [1990,eng] **48-2267**

Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] **48-5373**

New way to beat snow and ice. Pletan, R.A., [1994,eng] **48-5303**

On the adfreeze properties of damaged roofing. Ito, T., et al, [1993,jpn] **48-1992**

Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] **48-1753**

Overhead electric line poles protection against mechanical overloads. Goia, L.M., et al, [1993,eng] **48-844**

Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] **48-1366**

Protection of antennas on telecommunication masts and towers for atmospheric icing. Stöttrup-Andersen, U., [1993,eng] **48-852**

Protection of overhead line conductors against mechanical overloads. Goia, L.M., [1993,eng] **48-837**

Rotorcraft aviation icing research requirements: research review and recommendations. Peterson, A.A., et al, [1981,eng] **48-1145**

Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] **48-2086**

Side discharge anti-ice manifold. Miller, S.M., [1993,eng] **48-1654**

Snow and ice melting system for road or exposed surface. Nagai, Y., et al, [1993,eng] **48-4436**

Snow melting heater mats. Bayless, R.E., et al, [1990,eng] **48-2263**

Solid-state sequencing controller for timed de-icing. Kugelman, M.M., et al, [1988,eng] **48-5520**

Structure to prevent snow- and ice-adhesion e.g. to railway vehicle. Kansai Paint Company Ltd, [1993,eng] **48-4434**

Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids. Laforte, J.L., et al, [1994,eng] **48-3367**

Study on the adfreeze properties of roofing materials. Tomabechi, T., et al, [1993,jpn] **48-1991**

Thermal anti-ice protection for aircraft. Arnold, M.J., et al, [1993,eng] **48-4427**

Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] **48-2806**

UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] **48-4017**

Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] **48-3860**

Water tank cathodic protection system. Garlinger, R.A., [1990,eng] **48-2170**

Willow stem respo se to subzero temperatures. Von Fircks, H.A., [1993,eng] **48-2628**

See [also]: Chemical ice prevention; Ice control; Ice removal; Salting

Ice push

Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] **48-5548**

Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] **48-3961**

In situ investigations of the shore-ice-grounded hummock interaction. Sukhorukov, K.K., et al, [1994,eng] **48-5582**

Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] **48-3957**

Ice rafting

Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] **48-4705**

Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] **48-3804**

Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] **48-3805**

Glacigenic stage of substances' turnover. Ivanov, A.V., [1993,eng] **48-1086**

Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] **48-4188**

Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] **48-4974**

Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] **48-932**

Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] **48-3814**

Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] **48-4161**

On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] **48-1084**

Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] **48-1506**

Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] **48-5638**

Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] **48-1826**

Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] **48-5633**

Seven million years of glaciation in Greenland. Larsen, H.C., et al, [1994,eng] **48-3942**

Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] **48-5040**

Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] **48-4162**

Ice reconnaissance

See [also]: Ice conditions; Ice reporting; Ice surveys

Ice refrigeration

Calmac ice storage test report. Stovall, T.K., [1991,eng] **48-3676**

Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] **48-5357**

Ice regime

See [also]: Ice conditions

Ice relaxation

Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] **48-4001**

Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] **48-2876**

Ice removal

Acetate de-icing agent for road surfaces. Stankowiak, A., et al, [1993,eng] **48-1939**

Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] **48-5027**

Air conditioning system with a conduit for deicing driveways. Albertson, M.E., et al, [1992,eng] **48-2241**

Aircraft deicing apparatus utilizing heat distributing means. Byles, J.D., [1991,eng] **48-1941**

Aircraft propeller with electric deicers. Bowser, A.J., et al, [1991,eng] **48-2247**

Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] **48-4133**

Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] **48-1012**

Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] **48-4959**

Apparatus for removing ice from a chopped or cut hole. Malak, F.R., [1991,eng] **48-2253**

Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] **48-1763**

Avoiding aircraft icing. Horne, T.A., [1993,eng] **48-2881**

Clearing ice for bridging operations. Diemand, D., [1994,eng] **48-5425**

Controller valve for deicer. Hlavac, K.A., [1992,eng] **48-1368**

De-icer; inflatable tubes. Tritt, P.G., et al, [1991,eng] **48-2248**

Deicing compositions. Hansen, C.N., [1986,eng] **48-4273**

Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] **48-2758**

Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] **48-3235**

Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] **48-1371**

Electro-repulsive separation system for deicing. Adams, L.J., et al, [1989,eng] **48-1875**

Electrothermal timed de-icing apparatus for aircraft air foils. Kugelman, M.M., et al, [1989,eng] **48-5521**

Expulsive ice detector for aircraft or watercraft rigging. Goldberg, J.I., et al, [1993,eng] **48-4416**

Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] **48-2375**

Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] **48-1272**

Flameless deicer. Brigham, W.D., et al, [1993,eng] **48-1285**

Glycol ice protection system on a general aviation airfoil. Kohlman, D.L., et al, [1981,eng] **48-1142**

Good ideas to improve winter maintenance.[1994,eng] **48-5300**

Heated windshield wiper blade and holder. Meltzer, E.A., et al, [1989,eng] **48-1873**

Ice thickness and particle size from an eddy current deicer. Smith, S.O., [1994,eng] **48-3110**

Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] **48-4897**

Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] **48-2506**

Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] **48-4829**

Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] 48-4122
Lake County modifies deicing spreaders.[1994,eng] 48-4248
Laser ice removal system. Vega, R., et al, [1990,eng] 48-2197
Link rod for aircraft deicer vehicle. Vestergaard, G., [1993,eng] 48-4960
Low power deicer tests on a swept inlet component. Bond, T.H., et al, [1993,eng] 48-4880
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] 48-3923
Microwave deicing for aircraft engine propulsor blades. Martin, A.N., [1991,eng] 48-2222
New way to remove ice from streets and highways. Stirling, J., [1990,eng] 48-1667
Observations on falling of ice from conductor of transmission line. Csomor, M., et al, [1993,eng] 48-814
On the way: anti-icing instead of deicing. Mergenmeier, A., [1994,eng] 48-4256
Piping apparatus for melting snow and ice. Ohashi, K., [1989,eng] 48-4080
Pneumatic boot for helicopter rotor deicing. Blaha, B.J., et al, [1980,eng] 48-1146
Pneumatic deicer. Ely, D.N., et al, [1988,eng] 48-4272
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
Refining de-icing tactics.[1994,eng] 48-3237
Rotorcraft aviation icing research requirements: research review and recommendations. Peterson, A.A., et al, [1981,eng] 48-1145
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] 48-2086
Self-contained apparatus for de-icing aircraft surfaces using magnetic pulse energy. Zieve, P.B., [1990,eng] 48-2191
Solid-state sequencing controller for timed de-icing. Kugelman, M.M., et al, [1988,eng] 48-5520
Transcription of presentations. SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993, [1993,eng] 48-1107
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] 48-4271
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017
What's new in deicing.[1994,eng] 48-4257
Winning the ice war. Wilhelmsen, G., [1990,eng] 48-1922
Winter operations guidance for air carriers, and other adverse weather topics. U.S. Federal Aviation Administration, [1982,eng] 48-1144
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938

Ice reporting
Application of MOS-1 MSR data for sea ice study. Cho, K., et al, [1990,jpn] 48-4683
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] 48-5613
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] 48-179
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] 48-5631
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] 48-1056
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] 48-1064
International Ice Patrol '94. Haines, R., [1994,eng] 48-2760
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Measurements of bergy bit and growler populations off Canada's east coast. Crocker, G.B., et al, [1994,eng] 48-5554
Method and apparatus for monitoring ice masses. Page, R.D., [1989,eng] 48-4074
Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] 48-3450
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] 48-3467
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] 48-3474
Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] 48-1728
River ice conditions determined from ERS-1 SAR. Gatto, L.W., [1993,eng] 48-2935
Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] 48-3465
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] 48-3449
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Suppression of sea-ice clutter and detection of targets. Chikara, S., et al, [1990,jpn] 48-4684
Synoptic observation of sea ice. Hattori, T., et al, [1990,jpn] 48-4877
Synthetic aperture radar imagery for operational ice analysis. Fetterer, F., et al, [1991,eng] 48-4737
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] 48-4330
See [also]: Ice surveys

Ice ridges
See [also]: Pressure ridges

Ice roads
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374

Ice routing
Arctic cargo transportation economic evaluation. Backlund, A., et al, [1993,eng] 48-101
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] 48-5631
Division into zones of the Northern Sea Route by difficulty and safety of navigation. Buzuev, A.IA., et al, [1993,eng] 48-124
Duration of navigation without icebreakers on the Northern Sea Route. Buzuev, A.IA., [1994,eng] 48-5572
Experimental investigations of some polar sailing problems. Katsman, F., et al, [1993,eng] 48-4347
Full-scale observations of ship performance in ice. Kujala, P., et al, [1993,eng] 48-106
Ice navigating capability in the Northern Sea Route. Likhomanov, V.A., et al, [1993,eng] 48-107
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
International Northern Sea Route Program. Løvås, S.M., et al, [1994,eng] 48-5593
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125

Ice rubber friction
See [also]: Rubber ice friction

Ice runways
Construction estimate of runway on East Ongul I. Umemura, T., et al, [1993,jpn] 48-1184
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Ice thickness variability of the McMurdo Sound landfast ice runway. Morris, K., et al, [1992,eng] 48-3768
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] 48-2963

Ice salinity
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] 48-1854
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Investigation of sea ice interaction with SHF-electromagnetic field. Gavrilo, V.P., et al, [1993,eng] 48-1903
Properties of marine ice, a new ice type. Moore, J.C., et al, [1994,eng] 48-3303

Ice sampling
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] 48-3612
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] 48-5177
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Novel shipboard ice properties measurement system. Rossiter, J.R., et al, [1994,eng] 48-5590

Ice scoring
Estimation of burial depths for pipelines in the Beaufort Sea. Chouinard, L.E., [1993,eng] 48-153
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] 48-5040
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
See [also]: Striations

Ice scouring
See [also]: Ice scoring

Ice sheets
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] 48-4831
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] 48-3435
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] 48-3585
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] 48-3891
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] 48-4654
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
Basal boundary conditions at the Greenland Ice Sheet margin. Souchez, R., et al, [1993,eng] 48-41
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Cenozoic glacial history of Antarctica—A correlative synthesis. Moriwaki, K., et al, [1992,eng] 48-921
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] 48-4197
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Changes in the Vestfold Hills ice boundary. Gore, D.B., [1993,eng] 48-3247
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] 48-4194
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308

Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] **48-3594**
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] **48-2405**
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] **48-1311**
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] **48-1319**
Computer model along a flow-line of an ice dome---"captured ice shelf". Erlingsson, U., [1994,eng] **48-4824**
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] **48-3612**
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] **48-1233**
Contribution of Antarctic Peninsula ice to sea level rise. Morris, E.M., ed, [1992,eng] **48-779**
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] **48-4180**
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] **48-1316**
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] **48-4200**
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] **48-3517**
Death of an ice sheet. Lindstrom, D.R., et al, [1993,eng] **48-331**
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] **48-2393**
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] **48-3804**
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] **48-4267**
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] **48-2110**
Design of a scanning, spaceborne radar altimeter for measuring polar ice. Jensen, J.R., et al, [1993,eng] **48-1722**
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] **48-1065**
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] **48-1512**
Drilling through the antarctic ice sheet. Fujii, Y., [1993,jpn] **48-2437**
Drought in Greenland?. Jezek, K.C., [1993,eng] **48-1120**
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] **48-3885**
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] **48-3886**
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] **48-3884**
Dynamic former ice sheets. Dowdeswell, J.A., [1990,eng] **48-1502**
Early Pliocene climate and ice-sheet modeling. Prentice, M.L., et al, [1992,eng] **48-2617**
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] **48-947**
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] **48-232**
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] **48-1248**
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] **48-3520**
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] **48-80**
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] **48-3442**
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] **48-3485**
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] **48-3445**
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] **48-2428**
Estimating ice-sheet response to climate change. Hindmarsh, R.C.A., [1992,eng] **48-784**
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] **48-3511**
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] **48-3575**
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] **48-3438**
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] **48-3263**
Formation process of clathrate air-hydrate crystals in polar ice sheets. Hondoh, T., et al, [1992,jpn] **48-3219**
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] **48-3838**
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] **48-2808**
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] **48-5114**
Geology of Mount Murphy volcano. LeMasurier, W.E., et al, [1994,eng] **48-3299**
Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] **48-4692**
GISP2 completes coring of Greenland ice sheet. Morrison, M.C., [1993,eng] **48-773**
Glacial geology of Central and North Victoria Land, Antarctica. Verbers, A.L.L.M., et al, [1992,eng] **48-741**
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] **48-3632**
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] **48-3654**
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] **48-4485**
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] **48-1307**
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] **48-345**
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] **48-2402**
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] **48-3255**
Gravitational separation in polar firn [and response]. Craig, H., et al, [1993,eng] **48-1902**
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] **48-1564**
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] **48-4653**
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] **48-619**
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] **48-192**
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] **48-3514**
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] **48-1345**
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] **48-4477**
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery. Fahnestock, M.A., et al, [1993,eng] **48-1670**
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] **48-4188**
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskii, M., et al, [1994,eng] **48-5370**
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] **48-2387**
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] **48-1505**
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] **48-2340**
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] **48-3521**
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] **48-3828**
Ice and climate studies. Oerlemans, J., [1989,eng] **48-223**
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] **48-4186**
Ice core drilling in central Greenland. Moore, J.C., [1993,eng] **48-3322**
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] **48-4696**
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] **48-3904**
Ice masses on the move. Sutherland, D.G., [1990,eng] **48-1504**
Ice records of the past environment. Delmas, R.J., [1994,eng] **48-5308**
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] **48-4202**
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] **48-4037**
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] **48-5172**
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] **48-1218**
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] **48-3595**
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] **48-3441**
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] **48-1226**
Ice sheets, wayward winds and sea change. Lehman, S., [1993,eng] **48-333**
Ice shelves on the Antarctic Peninsula: changing climate and sea level. Vaughan, D.G., [1992,eng] **48-785**
Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al, [1992,eng] **48-2622**
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] **48-5156**
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] **48-3578**
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] **48-3814**
Icequakes recorded at Syowa Station, Antarctica. Kaminuma, K., et al, [1993,eng] **48-3278**
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] **48-3589**
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] **48-2557**
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] **48-1678**
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] **48-5139**
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] **48-3570**
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] **48-3475**
Information on the history of atmospheric CO2 and the carbon cycle from ice cores. Oeschger, H., [1989,eng] **48-220**
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] **48-4443**
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] **48-3586**
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] **48-5170**
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] **48-3513**
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] **48-2139**
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] **48-694**
Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] **48-3710**
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] **48-4246**
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] **48-2209**
Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] **48-3293**
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] **48-1007**
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] **48-3327**
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] **48-5141**
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] **48-3577**
Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] **48-2878**
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] **48-5423**
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] **48-1821**
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] **48-2383**
Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] **48-3436**
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] **48-4178**
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] **48-4191**
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] **48-2059**
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] **48-3571**
Microorganism numbers in the deep layer of the central antarctic ice-sheet. Abyzov, S.S., et al, [1993,eng] **48-1666**
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] **48-4830**
Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] **48-3711**
Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] **48-5412**
Minor expansion of alpine glaciers in Wright Valley, Antarctica. Hall, B.L., et al, [1992,eng] **48-2625**
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] **48-1566**
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] **48-3518**
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] **48-1677**
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] **48-4195**
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] **48-4179**
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] **48-3138**
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] **48-5123**
Monitoring the motion of an antarctic ice stream. Goldstein, R.M., et al, [1993,eng] **48-1669**
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] **48-4866**
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] **48-2624**
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] **48-1379**
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] **48-3574**
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] **48-2915**
New views for antarctic glaciology. Bindschadler, R.A., [1993,eng] **48-772**
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] **48-4204**
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] **48-4825**
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] **48-1011**

Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions. Huybrechts, P., [1993,eng] 48-2140
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] 48-4982
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Paleoclimate/ice sheet dynamics f om antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Patterns of snow accumulation and O-18 in Queen Maud Land. Isaksson, E., [1991,eng] 48-1112
Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] 48-1506
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] 48-4181
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] 48-2619
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] 48-1322
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] 48-3433
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-1716
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] 48-1305
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] 48-4184
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] 48-920
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Spatial temperature and accumulation rate variations in the Antarctic Peninsula. Peel, D.A., [1992,eng] 48-781
Staggering through the ice ages. Monastersky, R., [1994,eng] 48-5121
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Subsurface scattering and ice sheet altimetry. Davis, C.H., [1993,eng] 48-1709
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Supraglacial lake drainage near Søndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Surface mass balance of the Antarctic Peninsula ice sheet. Frolich, R.M., [1992,eng] 48-780
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] 48-1325
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Testing the astronomical theory with a coupled climate—ice-sheet mod l. Berger, A., et al, [1990,eng] 48-13
Texture-base l classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Thin ice cap instability (TICI). Matteucci, G., [1993,eng] 48-2678
Thinning rate of ice sheet on Mizuho Plateau. Toh, H., et al, [1992,eng] 48-919
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] 48-1300
Unusual radar echoes from the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-538
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Use of visible satellite imagery over ice sheets. Vaughan, D.G., et al, [1992,eng] 48-917
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] 48-3439
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] 48-1507
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] 48-4571
World sea level and the present mass balance of the antarctic ice sheet. Paterson, W.S.B., [1993,eng] 48-4185

Ice shelves

Activities within the Aurora Programme—Field season 1991/92. Kristensen, M., [1992,eng] 48-252
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Basal melting of antarctic ice shelves. Minale, M., et al, [1993,eng] 48-2410
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] 48-239
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Bottom melting on FRIS: results from different methods. Grosfeld, K., et al, [1992,eng] 48-237
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Circulation and water mass modification in the Weddell Sea. Fahrbach, E., [1992,eng] 48-235
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] 48-4824
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
Correction to paper by S.G. Warren et al. Warren, S.G., et al, [1993,eng] 48-1150
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] 48-11
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Direct oceanographic observations from under the Rutford flow-line, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Drilling options for the Cape Roberts Project. Pyne, A.R., et al, [1992,eng] 48-2321
ECM, AC conductivity and density of central Filchner-Ronne Ice Shelf core. Minikin, A., et al, [1992,eng] 48-243
Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskiĭ, N.I., et al, [1992,rus] 48-4802
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas. Hain, S., et al, [1994,eng] 48-3039
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Fast ice behavior, Cape Roberts area. Pyne, A.R., [1992,eng] 48-2320
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Filchner-Ronne Ice Shelf programme. Report No.5 (1991). Miller, H., ed. et al, [1991,eng] 48-1

Filchner-Ronne Ice Shelf programme. Report No.6 (1992). Oerter, H., ed, [1992,eng] 48-233
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Ice blisters and ice dolines. Moore, J., [1993,eng] 48-3603
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Ice shelves and icebergs—an overview. Oerlemans, J., [1989,eng] 48-661
Ice shelves on the Antarctic Peninsula: changing climate and sea level. Vaughan, D.G., [1992,eng] 48-785
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] 48-3781
Ice-covered regions in international law. Joyner, C.C., [1991,eng] 48-998
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] 48-10
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Interferometric SAR data analysis on Ronne Ice Shelf. Reinhold, A., et al, [1992,eng] 48-249
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf. Minikin, A., et al, [1991,eng] 48-5
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] 48-5423
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] 48-3038
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
New results of structural investigations in the central part of the FRIS. Blindow, N., et al, [1992,eng] 48-236
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] 48-251
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
Remote sensing analysis of Victoria Land ice shelves and ice tongues. Frezzotti, M., [1992,ita] 48-3288
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Ronne Ice shelf core and textural evolution of deforming ice. Eicken, H., et al, [1992,eng] 48-238
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] 48-9
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] 48-1943
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] 48-1325
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K., [1993,ger] 48-1113
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Thematic maps of Filchner-Ronne Ice Shelf. Vaughan, D.G., et al, [1991,eng] 48-3
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Trigonometric leveling 1992 on Ronne Ice Shelf. Karsten, A., et al, [1992,eng] 48-245

Ice sintering
Physical properties of snow and ice particles. Maeno, N., [1991,jpn] 48-3419

Ice snow interface
See [also]: Snow ice interface

Ice solid interface
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5624
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990, [1990,eng] 48-4664
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Adfreeze bond strength between sea ice and materials used for offshore structures. Hara, F., et al, [1994,eng] 48-3988
Adhesion of fresh and saline ice to bare and coated steel surfaces. Nelson, W.G., et al, [1994,eng] 48-3022
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] 48-140
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
BLASIM: a computational tool to assess ice impact damage on engine blades. Reddy, E.S., et al, [1993,eng] 48-2640
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] 48-5618
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Citation analysis of ice-structure interaction conference papers. Muhonen, A., [1994,eng] 48-5566
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] 48-3018
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
Compression tests on freshwater and sea ice samples. Kovacs, A., [1993,eng] 48-93
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] 48-5589
Computation of sheet ice and ridge ice forces on a faceted cone. Wang, Z., et al, [1993,eng] 48-152
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] 48-142
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] 48-803
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Controller valve for deicer. Hlavac, K.A., [1992,eng] 48-1368
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] 48-4334
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] 48-3024
Design concepts for Sakhalin offshore production platforms. Gulati, K.C., [1993,eng] 48-139
Determination of compressive strength and elastic modulus of sea ice by sonic method. Saeki, H., et al, [1993,eng] 48-1044
Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] 48-1895
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] 48-447
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] 48-4354
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures. Matskevich, D.G., [1994,eng] 48-3028
Dynamic model of ice-structure interaction. Bekker, A.T., et al, [1993,eng] 48-1054
Earthquake response of offshore structures in sea ice (part 4). Adachi, H., et al, [1990,jpn] 48-4669
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] 48-1035
Effect of Bohai ice crushing strength on vertical structures. Zhang, M.Y., et al, [1993,chi] 48-2096
Effect of electric current on the adhesion of ice to metal piles. Paasivuori, P., et al, [1994,eng] 48-3965
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] 48-864
Effect of lateral ice pressure on ship resistance. Spencer, D.S., et al, [1993,eng] 48-112
Effect of scale on the indentation resistance of ice. Frederking, R.M.W., [1993,eng] 48-90
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] 48-4969
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] 48-1371
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] 48-4333
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] 48-2380
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] 48-4296
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Experimental and numerical analysis of floating ice beam impact forces against a sloped structure. Coutermarsh, B.A., [1994,eng] 48-5586
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] 48-5586
Experimental study of ice forces on multi-legged structures. Kato, K., et al, [1990,jpn] 48-4678
Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] 48-4317
Experimental study of pressure ridge modeling and indentation tests. Tsuchida, Y., et al, [1993,jpn] 48-1032
Experimental study on local ice pressures acting on structures. Tozawa, S., et al, [1993,jpn] 48-1038
Experimental study on melting process of ice containing conductive copper solids. Hirasawa, Y., et al, [1993,eng] 48-894
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Factors influencing the coefficient of friction between sea ice and various materials. Nakazawa, N., et al, [1993,eng] 48-95
Field tests for iceberg impact loading. Bruneau, S.E., et al, [1994,eng] 48-5556
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] 48-167
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] 48-145
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Freezing of water flow in a horizontal cooled tube. Fukusako, S., et al, [1993,eng] 48-865
Freezing of water in a closed circular tube. Sugawara, M., et al, [1993,eng] 48-868
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] 48-2155
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] 48-5162
Glaciers. Knight, P.G., [1993,eng] 48-3137

Global ice loads on arctic structures interpreted from foundation displacements. Hewitt, K.J., et al, [1994,eng] 48-3363
Gravity base structure for an offshore platform in arctic regions. Barbaras, G.A.A., et al, [1990,eng] 48-2175
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskii, M., et al, [1994,eng] 48-5370
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349
Hull for ice breaking ship. Hellmann, J.H., et al, [1993,eng] 48-5525
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] 48-120
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] 48-5179
Ice force design and measurement of a conical structure. Määttänen, M., [1994,eng] 48-5577
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] 48-1037
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice impact on ship hulls. Hieronymi, E., [1993,eng] 48-116
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Ice load distribution on a faceted conical structure. Timco, G.W., et al, [1993,eng] 48-150
Ice load distribution on an icebreaker bow. Kayo, Y., [1993,eng] 48-118
Ice load measurements on board the cutter M.S. *Uisko*. Kivimaa, S., [1993,eng] 48-119
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] 48-5559
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-4316
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice loads on multifaceted conical structures. Croasdale, K.R., et al, [1993,eng] 48-138
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] 48-5555
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
Ice wedge dynamics and local crushing. McKenna, R.F., et al, [1993,eng] 48-94
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] 48-5558
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] 48-4985
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] 48-4289
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139
Improvement of traditional icebreaker hull lines. Tsoi, L.G., [1994,eng] 48-5628
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] 48-5560
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Influence of electric field on the properties of body-ice contact. Igoshin, V.A., et al, [1993,eng] 48-4320
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Influence of specimen geometry on the fracture toughness of freshwater ice. Stehn, L.M., et al, [1994,eng] 48-3969
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Initial conditions of ice-structure interaction problem. Bekker, A.T., et al, [1994,eng] 48-3026
Interaction between ice and propeller. Jussila, A., et al, [1991,eng] 48-4892
Interaction of particles and ice-water interfaces during bulk freezing. Lipp, G., et al, [1992,eng] 48-3079
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Investigation into the effects of ice cover parameters upon ship resistance. Alekseev, IU.N., et al, [1994,eng] 48-3950
Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] 48-444
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] 48-3700
Laboratory investigations of ice-structure contact. Tuhkuri, J., [1993,eng] 48-151
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Laboratory tests of ship structures under ice loading. Vols. 2 and 3. Tuhkuri, J., [1993,eng] 48-1963
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al, [1993,eng] 48-143
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al, [1994,eng] 48-5568
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] 48-3972
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] 48-1039
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] 48-2449
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] 48-3923
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
Mechanics of natural deforming sea ice floes. Smirnov, V.N., [1993,eng] 48-96
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Method for determining the anisotropic fracture toughness of ice. Stehn, L.M., et al, [1993,eng] 48-97
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] 48-3066
Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] 48-4158
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Model for ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-148
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] 48-144
Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] 48-4298
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334
Modeling of fracture and damage in quasibrittle materials. Jirasek, M., [1993,eng] 48-3540
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Modelling dynamic ice forces. Brown, T.G., [1994,eng] 48-5614
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] 48-3701
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-2129
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] 48-1559
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] 48-5616
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170
Numerical modeling of the plane static deformation in ice cover. Danilenko, V.I., et al, [1993,eng] 48-4324
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
Offshore structures for arctic oil and gas operations. Krahl, R.B., et al, [1990,eng] 48-4685
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Parametric sensitivity in ice force calculation models. Timco, G.W., et al, [1994,eng] 48-5575
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Performance of ice-navigating vessels in the northern Baltic in winter 1992. Pöntynen, H., [1992,eng] 48-2133
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Physics of liquid water in frozen powders and soils. Fu, H.Y., et al, [1993,eng] 48-5209
Pile uplift forces and the adfreeze phenomenon. Suman, J.C., [1994,eng] 48-3019
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] 48-4181
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] 48-3945
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Prevention of ice damage to hydraulic structures. Su, S.K., et al, [1993,eng] 48-5239
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] 48-86
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] 48-5535
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857

Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Propeller-ice impact process. Veitch, B., et al, [1993,eng] 48-123
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] 48-2219
Proposal of proper choice of ice tolerant coating films. Arita, M., et al, [1993,jpn] 48-1042
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Rate effects in brittle ice crushing. Kärnä, T., et al, [1993,eng] 48-92
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Report of the IAHR Working Group on Ice Forces on Structures. Wessels, E., [1992,eng] 48-1561
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures. McKenna, R.F., [1992,eng] 48-1562
Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] 48-5620
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] 48-4303
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] 48-175
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] 48-2671
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] 48-1560
Selection of standard level for sea ice strength. Truskov, P.A., et al, [1993,eng] 48-1036
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] 48-4891
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] 48-168
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Ship speed and ice submerging resistance. Kämäräinen, J., [1993.[illegible]] 48-4903
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] 48-4290
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] 48-87
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] 48-1223
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
Splitting of ice floes. Dempsey, J.P., et al, [1993,eng] 48-88
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] 48-1539
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] 48-1235
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Study on ice forces acting on floating structures. Taguchi, Y., et al, [1990,jpn] 48-4677
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] 48-149
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-3017
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-5619
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] 48-5629
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] 48-5576
Total ice forces on multi-legged offshore structures. Takeuchi, T., et al, [1993,eng] 48-4318
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Transient response model of low-speed diesel engine in ice-breaking cargo vessels. Larmi, M., [1993,eng] 48-3647
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013
Verification of model of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2152
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] 48-1051
Weertman regelation at the glacier bed. Huobard, B., et al, [1993,eng] 48-2391
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979

Ice spectroscopy

Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-3679
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] 48-341
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] 48-3543
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Measurement of ice fraction in NaCl solution with FTIR. Mizoguchi, M., et al, [1992,eng] 48-293
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-4759
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] 48-5385
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917

Ice storms

Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] 48-4749
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] 48-811
Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] 48-841
Data analysis of icing measurements in Iceland. Eliasson, Á.J., et al, [1993,eng] 48-845
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] 48-821
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] 48-813
Hungarian icing activity survey. Krómer, I., [1993,eng] 48-808
Ice accumulation characteristics on Hydro-Quebec HV insulators. Drapeau, J.F., et al, [1993,eng] 48-846
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] 48-829
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] 48-615
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] 48-854
Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] 48-843
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] 48-2964
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] 48-834
Numerical simulation of an icing event during WISP-90. Modica, G.D., et al, [1992,eng] 48-4748
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] 48-823
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] 48-1679
Rosemount freezing rain sensor. Stein, P., [1993,eng] 48-828
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] 48-812

Ice strength

Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] 48-3013
Brittle zone and air-hydrate formation in polar ice sheets. Uchida, T., et al, [1994,eng] 48-5356
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] 48-4481
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] 48-3251
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Experimental study on influence of impurity on ice creep at - 1 degree centigrade. Huang, M.H., et al, [1993,chi] 48-1442
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Measuring the compressive strength of ice. Kovacs, A., [1993,eng] 48-3494
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
On the creep tests of ice dome model in a low temperature laboratory. Tsukui, K., et al, [1993,jpn] 48-2002
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
Optimized storage condition of deep ice core samples. Uchida, T., et al, [1994,eng] 48-5357
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Prestressed ice as indigenous polar construction material. Nese, P.I., et al, [1991,eng] 48-4040
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] 48-2219
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] 48-3015
Study of fracture toughness and fatigue of freshwater ice. Weber, L.J., [1994,eng] 48-3546
Study of the mechanical properties of spray ice. Instanes, A., et al, [1994,eng] 48-5564
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

See [also]: Ice cover strength

Ice structure
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] **48-4850**
Atmosphere-snow transfer function for hydrogen peroxide. Conklin, M.H., et al, [1993,eng] **48-2675**
Continuous study of an ice core: ECM, fine stratigraphy, air bubbles and crystals. Zagorodnov, V.S., et al, [1994,eng] **48-5354**
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al, [1994,eng] **48-5585**
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] **48-5177**
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] **48-341**
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] **48-4152**
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] **48-3762**
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] **48-1612**
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] **48-946**
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] **48-5155**
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] **48-3629**
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] **48-4**
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] **48-2594**
New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] **48-4718**
New results of structural investigations in the central part of the FRIS. Blindow, N., et al, [1992,eng] **48-236**
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] **48-4321**
Physical properties and structure of a single ice floe. Danielson, A., et al, [1992,eng] **48-3769**
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] **48-5385**
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] **48-4715**
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] **48-3301**
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] **48-3579**
Sea ice strength variability due to various ice column axis orientation. Polomoshnov, A.M., et al, [1993,eng] **48-4337**
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] **48-4444**
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] **48-2204**
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] **48-213**
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] **48-1750**
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] **48-214**
Structural transitions in amorphous water ice and astrophysical implications. Jenniskens, P., et al, [1994,eng] **48-5108**
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] **48-2534**
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] **48-945**
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] **48-931**
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] **48-5160**
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] **48-2027**
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] **48-4646**

Ice sublimation
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] **48-2919**
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] **48-3679**
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] **48-4805**
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] **48-2997**
Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] **48-1182**
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] **48-4855**
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] **48-2574**
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] **48-3071**
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] **48-995**
Laser ice removal system. Vega, R., et al, [1990,eng] **48-2197**
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] **48-5437**
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] **48-987**
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] **48-988**
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] **48-5045**
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] **48-1618**
Reports of planetary geology and geophysics program, 1990.[1991,eng] **48-3696**
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] **48-5043**
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] **48-754**
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] **48-983**
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] **48-991**
Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] **48-1889**
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] **48-2147**
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] **48-606**
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] **48-4154**
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] **48-2510**
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] **48-2344**
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] **48-1608**

Ice surface
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] **48-3390**
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery. Sievers, J., et al, [1991,eng] **48-2**
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] **48-3162**
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] **48-250**
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] **48-5431**
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] **48-4152**
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] **48-2618**
Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] **48-2621**
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] **48-2349**
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] **48-4807**
Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al, [1992,eng] **48-2622**
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] **48-2139**
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines. De Veaux, R.D., et al, [1993,eng] **48-2244**
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] **48-2537**
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] **48-2216**
Physical properties of the ice surface. Korsnes, R., et al, [1992,eng] **48-2901**
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] **48-3774**
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] **48-320**
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] **48-2463**
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] **48-2406**
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] **48-1247**
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] **48-3446**
See [also]: Glacier surfaces

Ice surveys
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] **48-1026**
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] **48-1795**
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] **48-3673**
Airborne electromagnetic mapping of ice thickness in the Baltic Sea. Hautaniemi, H., et al, [1994,eng] **48-5592**
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] **48-2670**
Altimeter Sea Ice Workshop, Feb. 15-16, 1990. Hawkins, J.D., ed, [1990,eng] **48-1481**
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] **48-2812**
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] **48-1704**
Annual report—1993. National Snow and Ice Data Center. World Data Center-A for Glaciology, [1993,eng] **48-1369**
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] **48-3434**
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] **48-3697**
Application of MOS-1 MSR data for sea ice study. Cho, K., et al, [1990,jpn] **48-4683**
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] **48-4729**
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] **48-1291**
Arctic sciences program research summaries, 1992. Fondrk, J., ed, et al, [1993,eng] **48-1463**
Arctic sea ice microwave signature and geophysical processes study. Onstott, R.G., et al, [1993,eng] **48-1693**
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] **48-4124**
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] **48-5613**
Atmospheric and oceanographic studies in Lake Saroma. Shirasawa, K., et al, [1993,eng] **48-1073**
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] **48-4055**
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] **48-1727**
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] **48-3122**
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] **48-1714**
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] **48-1690**
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] **48-1354**
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea. Sato, K., [1988,jpn] **48-1838**
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] **48-1353**
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] **48-3472**
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] **48-2354**
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] **48-4730**
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] **48-1805**
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] **48-179**
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] **48-5631**
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] **48-4414**
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] **48-2352**
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] **48-1683**
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] **48-1721**
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] **48-1962**
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al, [1994,eng] **48-3118**
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] **48-2816**
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] **48-1689**
Dual-band infrared imaging for mapping sea ice. Del Grande, N.K., et al, [1992,eng] **48-4760**
Dynamic local thresholding technique for sea ice classification. Haverkamp, D., et al, [1993,eng] **48-1694**
Electromagnetic ice thickness sensor for marginal ice zone. Prinsenberg, S.J., et al, [1993,eng] **48-178**
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] **48-4035**
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] **48-1686**
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1993,eng] **48-3457**
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone. Truskov, P.A., et al, [1993,eng] **48-1048**
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] **48-1056**
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] **48-1691**
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] **48-2810**
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] **48-1688**
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] **48-1692**
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] **48-5431**
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] **48-1793**
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] **48-3466**
Geophysical field area fraction estimation. Key, J.R., [1993,eng] **48-2161**
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] **48-3451**

Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] **48-2621**
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] **48-3473**
Helicopter ice field surveys. Erlingsson, B., et al, [1992,eng] **48-2902**
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] **48-2732**
Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] **48-4752**
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] **48-5537**
Ice conditions on Alaska's Beaufort Sea Coast: extending the observations. Metzner, R., et al, [1979,eng] **48-4142**
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] **48-3253**
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] **48-225**
Ice forecasting in the southern Okhotsk Sea. Toyota, T., et al, [1993,jpn] **48-1069**
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] **48-5621**
Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] **48-2813**
Ice observation on a platform in Bohai Sea. Yue, Q.J., et al, [1994,eng] **48-5557**
Ice processes. Augustein, E., et al, [1991,eng] **48-4867**
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] **48-932**
Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] **48-1698**
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] **48-4037**
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] **48-131**
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] **48-2703**
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] **48-2702**
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] **48-3081**
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] **48-3082**
Ice thickness data, winter 1991-1992.[1993,eng] **48-2162**
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] **48-3468**
Iceberg data from annual expeditions in the Barents Sea. Spring, W., et al, [1993,eng] **48-130**
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] **48-5380**
Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] **48-1064**
Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] **48-3483**
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] **48-1678**
Improving of microwave remote sensing of sea ice. Shi, Z.F., et al, [1993,eng] **48-1715**
Intercomparison of ERS-1 SAR, airborne SLAR and electromagnetic ice-thickness data. Ikeda, M., et al, [1994,eng] **48-3456**
International Arctic Polynya Program. Legendre, L., [1990,eng] **48-4666**
International Ice Patrol '94. Haines, R., [1994,eng] **48-2760**
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] **48-4907**
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] **48-2135**
Level ice thickness and multiyear drift in the Arctic. Mironov, E.U., [1994,eng] **48-5603**
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] **48-1053**
Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] **48-5571**
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] **48-3004**
Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92. Shuchman, R.A., et al, [1993,eng] **48-1695**
Measurements of bergy bit and growler populations off Canada's east coast. Crocker, G.B., et al, [1994,eng] **48-5554**
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] **48-2824**
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] **48-2059**
Methods to map ice conditions, to measure ice properties and to quantify ice features. Nortala-Hoikkanen, A., et al, [1993,eng] **48-177**
Microwave and optical measurements of sea ice. Goeckel, D.L., et al, [1993,eng] **48-1089**
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] **48-1815**
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] **48-1794**
Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] **48-3450**
Monthly mean sea ice data from ice prediction models. Posey, P.G., et al, [1991,eng] **48-4731**
MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] **48-1058**
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] **48-3452**
Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] **48-1055**
Nested grid sea ice modelling. Christensen, F.T., et al, [1993,eng] **48-165**
Novel shipboard ice properties measurement system. Rossiter, J.R., et al, [1994,eng] **48-5590**
Observation of drift ice and salt field in the Liaodong Bay, China, by MOS-1/MESSR. Ogata, S., [1998,eng] **48-4870**
Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al, [1993,eng] **48-1057**
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] **48-2642**
Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] **48-3458**
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] **48-3453**
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] **48-1466**
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] **48-3467**
Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center. Preller, R.H., et al, [1991,eng] **48-4732**
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] **48-3471**
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] **48-1703**
Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] **48-3157**
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] **48-2078**
Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] **48-128**
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] **48-4647**
Polarimetric radar measurements of artificial sea ice during CRRELEX '88. Onstott, R.G., [1990,eng] **48-4747**
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] **48-1699**
Possibility of one-month forecast of sea ice. Kano, Y., et al, [1993,jpn] **48-1068**
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] **48-1047**
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] **48-86**
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] **48-3433**
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] **48-5535**
Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] **48-127**
Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] **48-1700**
Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] **48-2645**
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] **48-4648**
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] **48-2620**
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] **48-3461**
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] **48-1351**
Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] **48-1314**
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] **48-4412**
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] **48-3474**
Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] **48-1702**
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] **48-4123**
Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] **48-1728**
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] **48-3190**
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992. Spring, W., et al, [1993,eng] **48-129**
River ice conditions determined from ERS-1 SAR. Gatto, L.W., [1993,eng] **48-2935**
River ice investigations in Norwegian watercourses—a review. Asvall, R.P., [1994,eng] **48-5536**
Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] **48-126**
Satellite measurements for studying the cryosphere. Rott, H., [1990,ger] **48-3126**
Satellite observations of oceans and ice. Jezek, K.C., et al, [1988,eng] **48-1467**
Satellite time series monitoring of Okhotsk Sea ice in 1992. Ishida, K., et al, [1993,jpn] **48-1067**
Scatterometer measurements of arctic sea ice at C-band. Grandell, J., et al, [1993,eng] **48-1701**
Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] **48-3465**
Sea ice altimeter processing scheme at the EODC. Laxon, S.W., [1994,eng] **48-4036**
Sea ice information from satellite images (part 2). Aoshima, M., [1993,jpn] **48-1070**
Sea ice lead dynamics from ERS-1 SAR. Stern, H.L., et al, [1994,eng] **48-3448**
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] **48-3449**
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] **48-5594**
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] **48-3455**
Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery. Emery, W., et al, [1993,eng] **48-3281**
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] **48-2007**
Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] **48-1323**
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] **48-314**
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] **48-3459**
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] **48-3462**
Sea-ice features interpreted in a combination of multi sensor data. Ono, N., [1990,jpn] **48-4878**
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] **48-2834**
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] **48-1356**
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] **48-5159**
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] **48-3460**
Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] **48-4034**
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] **48-2631**
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] **48-3464**
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] **48-1062**
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] **48-3670**
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] **48-5379**
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] **48-2502**
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] **48-3463**
Synoptic observation of sea ice. Hattori, T., et al, [1990,jpn] **48-4877**
Synthetic aperture radar imagery for operational ice analysis. Fetterer, F., et al, [1991,eng] **48-4737**
Synthetic dense media fabrication with application to sea ice. Porco, R.L., et al, [1993,eng] **48-1696**
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] **48-3454**
Thermal structure of the Cosmonaut Polynya region in the Antarctic. Takizawa, T., et al, [1993,eng] **48-1059**
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] **48-3447**
Use of numerical methods in ice conditions examination. Pokrashenko, S.A., [1993,eng] **48-1090**
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] **48-4330**
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] **48-3446**
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] **48-5574**
Variability in the Okhotsk Sea ice. Nishio, F., et al, [1993,eng] **48-1066**
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] **48-4162**
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] **48-3135**
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] **48-1822**
Year-to-year variability of sea ice extent in the arctic and subarctic seas. Ono, N., [1993,eng] **48-1063**
Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] **48-1687**

See [also]: Ice reporting

Ice temperature

Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] **48-1291**
Dynamics of the development of morainal formations on the northern slope of Zailiyskiy Alatau. Tokmagambetov, G.A., et al, [1992,rus] **48-4464**
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] **48-2692**
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] **48-242**
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] **48-3263**
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] **48-2155**
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] **48-246**

Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] 48-5558
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] 48-10
Investigation of sea ice interaction with SHF-electromagnetic field. Gavrilo, V.P., et al, [1993,eng] 48-1903
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] 48-3304
Ronne Ice Shelf firn core isotopic and chemical investigations. Graf, W., et al, [1991,eng] 48-9
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756

Ice thermal properties
Calmac ice storage test report. Stovall, T.K., [1991,eng] 48-3676
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] 48-2692
Experimental study on melting process of ice containing conductive copper solids. Hirasawa, Y., et al, [1993,eng] 48-894
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] 48-3724
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Quasi-static thermal stresses in the sea ice. Smirnov, V.N., et al, [1994,eng] 48-5578
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Some topics on melting heat transfer problems. Fukusako, S., et al, [1993,eng] 48-858
Studies on freezing and thawing of flat ice on the water surface. Nakatsuka, S., et al, [1993,jpn] 48-3177
Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] 48-5576
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353

Ice thickness
See [also]: Glacier thickness; Ice cover thickness

Ice tongues
See [also]: Glacier tongues

Ice transported sediments
See [also]: Ice rafting

Ice tunnels
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882

Ice underside
See [also]: Ice bottom surface

Ice vapor interface
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] 48-4025
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] 48-3059
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-3679
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] 48-4697
Effects of various factors on rime icing; water vapor content. Uchida, T., et al, [1993,jpn] 48-3169
Freeze/thaw characteristics of room temperature heat pipes. Ochterbeck, J.M., [1994,eng] 48-3555
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] 48-2155
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] 48-2431
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Nucleation of ice. Vali, G., [1991,eng] 48-1119
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reports of planetary geology and geophysics program, 1990.[1991,eng] 48-3696
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] 48-3541

Ice veins
See [also]: Ground ice; Ice wedges

Ice volume
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] 48-3584
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
CO_2 and glacial cycles. Saltzman, B., et al, [1994,eng] 48-2912
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] 48-3290
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] 48-1576
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] 48-5028
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] 48-1547
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Ice transference of Bering Strait. IAkunin, L.P., et al, [1993,eng] 48-4348
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] 48-5380
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] 48-3939
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] 48-3663
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135

Ice water interface
^{228}RA as a tracer for shelf water in the Arctic Ocean. Van der Loeff, M.M.R., et al, [1993,eng] 48-4544
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Arctic sea ice microwave signature and geophysical processes study. Onstott, R.G., et al, [1993,eng] 48-1693
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
Assessment of thermal efficiency of fins under ice cryogeneration conditions. Mariniuk, B.T., [1994,eng] 48-4262
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Coefficients of linear expansion of freezing soils. Mordovskii, S.D., et al, [1993,eng] 48-70
Cold environment tests of oil skimmer. Wessels, E., [1993,eng] 48-162
Collision events between adjacent ice floes driven by an ocean wave field. Rottier, P.J., et al, [1993,eng] 48-4355
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] 48-3011
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] 48-4124
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5334
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al, [1994,eng] 48-3118
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064

Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] 48-1689
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Drift and spread of oil in broken ice—field experiment. Vefsnmo, S., et al, [1994,eng] 48-5567
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] 48-864
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay. Messier, D., et al, [1989,fre] 48-3432
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils. Bech, C., et al, [1993,eng] 48-3720
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] 48-1075
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] 48-3162
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] 48-1686
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1994,eng] 48-3457
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] 48-4853
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] 48-5561
Experimental study on melting process of ice containing conductive copper solids. Hirasawa, Y., et al, [1993,eng] 48-894
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] 48-1691
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] 48-1692
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Flow characteristics in open channels with floating ice cover. Majewski, W., [1994,eng] 48-5538
Flow in ice covered channels. Schmidt, N.P., [1992,eng] 48-2654
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] 48-5546
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] 48-1547
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Freezing of water flow in a horizontal cooled tube. Fukusako, S., et al, [1993,eng] 48-865
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Growth rates of icicles. Maeno, N., et al, [1994,eng] 48-5168
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
Ice blisters and ice dolines. Moore, J., [1993,eng] 48-3603
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice flow behind an icebreaking vessel. Salmi, P., et al, [1993,eng] 48-109
Ice formation in steep rivers. Tesaker, E., [1994,eng] 48-5601
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] 48-1698
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] 48-4821
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] 48-3781
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] 48-4807
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] 48-3483
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-976
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] 48-2506
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Interaction of hydrophilic liquid with ice. Nagornov, O.V., et al, [1993,eng] 48-875
Interaction of particles and ice-water interfaces during bulk freezing. Lipp, G., et al, [1992,eng] 48-3079
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Investigation of turbulent underice flows. Dolgopolova, E.N., [1994,eng] 48-5544
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Laboratory and numerical studies of ice release. Sarraf, S., et al, [1994,eng] 48-5540
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-4360
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] 48-1543
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al, [1992,rus] 48-3723
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] 48-5591
Mechanical properties of frozen rock in a two-phase model. Mordovskiĭ, S.D., et al, [1994,eng] 48-4837
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Melting at the leading edge of a river ice cover. Zhang, X.T., [1992,eng] 48-804
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] 48-2342
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Ornstedt, A., et al, [1994,eng] 48-4413
Modelling wave/ice interactions in the marginal ice zone. Rottier, P., [1990,eng] 48-775
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] 48-3548
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1153
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] 48-4843
Numerical simulation of pack ice movement using the momentum conservation method. Rheem, C.K., et al, [1993,jpn] 48-1052
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] 48-3458
Ocean-ice interactions. Lõyning, T.B., et al, [1992,eng] 48-2900
Oceanographic survey near a glacier. Kutin, D.G., et al, [1992,eng] 48-2910
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Oil spreading in surface waters with an ice cover. Yapa, P.D., et al, [1993,eng] 48-317
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] 48-1466
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] 48-1703
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Physics of liquid water in frozen powders and soils. Fu, H.Y., et al, [1993,eng] 48-5209

Physiochemical aspects of atmospheric electricity. Krasikov, N.N., [1993,eng] 48-1823
Pile uplift forces and the adfreeze phenomenon. Suman, J.C., [1994,eng] 48-3019
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Precision navigation under ice cover. Massey, J., [1993,eng] 48-1773
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] 48-1047
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [199-,eng] 48-5535
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] 48-1702
Report on the *Professor Multanovsky* cruise, 17 July-27 July 1991. Volkov, V.A., [1992,eng] 48-2908
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] 48-1545
Response of distinct ice floes to ocean gravity waves. Løset, S., et al, [1994,eng] 48-5563
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Results from oil-spill response research 1991-1992. Tennyson, E.J., [1993,eng] 48-793
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Satellite observations of ice/ocean eddies in the Okhotsk Sea. Wakatsuchi, M., et al, [1990,eng] 48-4674
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snow transport in an open channel on mild slope configuration. Fukushima, Y., et al, [1993,jpn] 48-3188
Some topics on melting heat transfer problems. Fukusako, S., et al, [1993,eng] 48-858
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al, [1991,eng] 48-4733
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Studies on freezing and thawing of flat ice on the water surface. Nakatsuka, S., et al, [1993,jpn] 48-3177
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600
Thermal control of freezing processes with predetermined rate of freezing. Lin, S., [1993,eng] 48-897
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
Thermal structure of the Cosmonaut Polynya region in the Antarctic. Takizawa, T., et al, [1993,eng] 48-1059
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Thickness and anisotropy of the ice-water interface. Beaglehole, D., et al, [1993,eng] 48-1671
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] 48-3971
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] 48-1081
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] 48-3545
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] 48-4247
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] 48-1079
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] 48-1080
Unfrozen water content in multi-crystal ice. Xu, X.Z., et al, [1993,eng] 48-5255
Unfrozen water content in polycrystal ice. Xu, X.Z., et al, [1993,chi] 48-1435
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] 48-3541
Variability in the hydrophysical fields near drifting icebergs and safe navigation. Volkov, V.A., et al, [1993,rus] 48-1904
Variation of water temperature in an ice-covered stream. Miya, A., et al, [1994,eng] 48-5543
Water circulation and flow regimes in Lake Saroma. Takeuchi, T., [1993,eng] 48-1076
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
Water treatment apparatus and method. Connery, C.A., [1989,eng] 48-4082
Wave attenuation under ice cover. Sakai, S., et al, [1993,eng] 48-180
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] 48-1051
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] 48-1242

Ice (water storage)
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] 48-1576
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] 48-2509

Ice wedges
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434
Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] 48-2541
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] 48-508
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] 48-4260
Ice wedges in northeastern China. Tong, B.L., [1993,eng] 48-466
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Survey of a gas pipeline laid on parts of developed ice wedges. Popov, V.A., [1992,rus] 48-4789
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471
See [also]: Ground ice

Ice wharves
Method of repairing cracks in ice mass. Nazarov, V.D., et al, [1992,eng] 48-5529

Ice wood friction
See [also]: Wood ice friction

Iceberg towing
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252

Icebergs
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Below the tip of an iceberg. Crane, D., [1993,eng] 48-5366
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Correction to paper by S.G. Warren et al. Warren, S.G., et al, [1993,eng] 48-1150
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] 48-3804
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1994,eng] 48-3457
Field tests for iceberg impact loading. Bruneau, S.E., et al, [1994,eng] 48-5556
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
General sea ice conditions. Vinje, T., et al, [1992,eng] 48-2903
Gravity base structure for an offshore platform in arctic regions. Barbaras, G.A.A., et al, [1990,eng] 48-2175
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] 48-4188
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
Helicopter ice field surveys. Erlingsson, B., et al, [1992,eng] 48-2902
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
Hydrographers get to know icebergs. Kazanskiĭ, M.M., [1993,rus] 48-1905
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Ice conditions. Dmitriev, N.E., et al, [1992,eng] 48-2909
Ice shelves and icebergs—an overview. Oerlemans, J., [1989,eng] 48-1661
Ice-covered regions in international law. Joyner, C.C., [1991,eng] 48-998
Iceberg data from annual expeditions in the Barents Sea. Spring, W., et al, [1993,eng] 48-130
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] 48-5380
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] 48-5558
International Ice Patrol '94. Haines, R., [1994,eng] 48-2760
Law of the sea and the polar regions. Rothwell, D.R., et al, [1994,eng] 48-5120
Measurements of bergy bit and growler populations off Cana a's east coast. Crocker, G.B., et al, [1994,eng] 48-5554
Method and apparatus for monitoring ice masses. Page, R.D., [1989,eng] 48-4074
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Movement and decay of the tabular iceberg A-24. Hawkins, J.D., et al, [1993,eng] 48-328
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands). Klöser, H., et al, [1994,eng] 48-3042
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] 48-128
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127
Protective system against icebergs or floating objects. Mogridge, G.R., et al, [1993,eng] 48-1516

Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992. Spring, W., et al, [1993,eng] 48-129
Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] 48-126
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Variability in the hydrophysical fields near drifting icebergs and safe navigation. Volkov, V.A., et al, [1993,rus] 48-1904
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935

Icebound lakes
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal. Meon, G., et al, [1993,eng] 48-2797
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] 48-2796
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] 48-2798
Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] 48-1581
See [also]: Frozen lakes

Icebreakers
5 years operational experience with the Swedish icebreaker *Oden*. Backman, A., [1994,eng] 48-4306
7 MW multi purpose heavy duty icebreaker. Kleemann, A., [1993,eng] 48-105
Arctic research vessel design would expand science prospects. Elsner, R., et al, [1993,eng] 48-2160
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Arctic tanker 80/20 hullform optimisation. Volume V—Optimisation of structure. R.P. Browne Marine Consultants Limited, [1993,eng] 48-4125
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Avondale to build new icebreaker for USCG.[1993,eng] 48-3562
Azimuth thrusters in ice breaking technology. Savikurki, J., et al, [1993,eng] 48-110
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Classification of ships by icebreaking capability. Tsoĭ, L.G., [1993,eng] 48-115
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] 48-3018
Design of icebreaker bows. Herkens, H., [1993,eng] 48-104
Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630
Development of multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-113
Effect of radial dynamic responses on the service life of stern-tube bearings in icebreakers. Muramovich, V.G., et al, [1993,rus] 48-3763
Efficiency of using non-traditional hull lines for icebreakers. Ierusalimskiĭ, A.V., et al, [1994,eng] 48-4307
Empirical review of the design and performance of icebreakers. Dick, R.A., et al, [1989,eng] 48-3747
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] 48-4296
Experience of Thyssen-Waas-Vorschiffs on receiving the icebreaker *Mudyug*.[1990,ger] 48-3930
Experimental investigations of some polar sailing problems. Katsman, F., et al, [1993,eng] 48-4347
'Fennica' multipurpose icebreaker launched.[1992,eng] 48-3226
Fifteen years of arctic shipping—the lessons learned. Luce, M.P., et al, [1994,eng] 48-4309
Finland breaks the ice. Brigham, L.W., [1987,eng] 48-2338
Finnish firms in arctic shipping joint venture.[1993,eng] 48-3228
Finnish-Swedish lawsuit over icebreaker hull form.[1992,ger] 48-2814
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Full scale deflection of ice by an icebreaker. Gagnon, R.E., et al, [1993,eng] 48-103
Hull for ice breaking ship. Hellmann, J.H., et al, [1993,eng] 48-5525
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] 48-120
Ice breaker. Hellmann, J.H., et al, [1990,eng] 48-1938
Ice capability of the multipurpose icebreaker *Fennica*—full-scale results. Soininen, H., et al, [1993,eng] 48-111
Ice flow behind an icebreaking vessel. Salmi, P., et al, [1993,eng] 48-109
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice impact on ship hulls. Hieronymi, E., [1993,eng] 48-116
Ice load distribution on an icebreaker bow. Kayo, Y., [1993,eng] 48-118
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Ice propulsion of the icebreaker *Kapitan Sorokin* with conventional forebody. Tsoĭ, L.G., [1993,eng] 48-114
Ice technology—advancing slowly.[1992,eng] 48-3224
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] 48-4302
Icebreaker for North West Passage—a designer's perspective. Keinonen, A., [1994,eng] 48-4311
Icebreaker *Louis S St Laurent* returns to service.[1993,eng] 48-3561
Icebreaker M/S Fennica—Finnish shipbuilding know-how at its best. Lindqvist, R., [1993,eng] 48-2339
Icebreaker, tug, rescuer. Putin, O., [1992,rus] 48-3794
Icebreaker. Herkens, H., et al, [1989,eng] 48-4085
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Icebreaking ship. Jans, P., et al, [1993,eng] 48-1734
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] 48-4289
Improvement of traditional icebreaker hull lines. Tsoĭ, L.G., [1994,eng] 48-5628
Increasing the reliability of a nuclear icebreaker steam-turbine plant with a closed air-water cooling system. Klimov, IU.S., et al, [1992,rus] 48-751
Interaction of hovercraft icebreaker platforms with ice cover. Zuev, V.A., et al, [1994,eng] 48-3952
'Kapitan Sorokin'.[1992,eng] 48-3225
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] 48-1039
Master mariner's perspective on the performance of icebreakers. Toomey, P.R.M., [1994,eng] 48-4310
Method for changing characteristics of ship and hull form of ice-breaking ship. Eronen, H., et al, [1992,eng] 48-5522
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] 48-4298
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334
Monitoring vibrations in a nuclear icebreaker. Lattka, A.L., et al, [1990,ger] 48-3929
MSV Fennica, a novel icebreaker concept. Lohi, P., et al, [1994,eng] 48-4301
MSV Fennica, new operational profile for an icebreaker. Harjula, A., et al, [1994,eng] 48-4305
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] 48-3227
Multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-4345
Multipurpose icebreaker for the Finnish National Board of Navigation. Lohi, P., et al, [1993,eng] 48-4344
Multipurpose icebreaker.[1992,fre] 48-3307
New generation Arktika class nuclear icebreaker feasibility study. Tsoĭ, L.G., [1994,eng] 48-4304
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] 48-4292
New Russian atomic icebreaker gets underway.[1993,ger] 48-2629
New ships and offshore structures for the Arctic.[1992,rus] 48-750
Nuclear powered icebreaker "Lenin": its construction. Papkovskiĭ, B., [1994,rus] 48-5398
Oden-91 International Arctic Ocean Expedition. Travel report. Salmela, O., [1992,eng] 48-4894
Open-water resistance and seakeeping characteristics of ships with icebreaking bows. Moton, C.J., [1991,eng] 48-4727
Operational performance of the RV *Nathaniel B. Palmer*. Schultz, L.A., et al, [1994,eng] 48-4308
Polar-Circle, icebreaker for polar cruises and research.[1991,fre] 48-3306
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] 48-86
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Propeller-ice impact process. Veitch, B., et al, [1993,eng] 48-123
Proposal of proper choice of ice tolerant coating films. Arita, M., et al, [1993,jpn] 48-1042
Propulsion plant of the *James Clark Ross*.[1991,eng] 48-3615
Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] 48-4300
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] 48-4303
Rudder/propulsion device arrangements on icegoing vessels. Bäckström, M., et al, [1993,eng] 48-102
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] 48-3449
Seabed sources of radionuclides in the dumped reactor compartment of atomic icebreaker *Lenin*. Sivintsev, IU., [1993,eng] 48-4516
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155
Shallow draft Thyssen/Waas-icebreaker. Rupp, K.H., et al, [1993,eng] 48-108
Ships' navigability in the ice-infested waters around the port of Abashiri. Narita, S., et al, [1990,jpn] 48-4676
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336
Study on the stem angle and icebreaking capability of icebreaking vessels. Choi, K.S., [1993,eng] 48-4346
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskiĭ, A.V., et al, [1989,rus] 48-310
Technical-economic indicators and development perspectives for the nuclear fleet. Levin, B.M., [1992,rus] 48-1271
Tests on world champion icebreaker successfully completed at Rauma.[1993,ger] 48-3279
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] 48-5629
World-class icebreaker: the Canadian *Polar*-8. Brigham, L.W., [1986,eng] 48-2337
See [also]: Ice breaking

Icefalls
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100

Iceland
Data analysis of icing measurements in Iceland. Elíasson, Á.J., et al, [1993,eng] 48-845
Glacier variations 1930-1960, 1960-1990 and 1989-1990. Sigurdsson, O., [1991,ice] 48-5293
Glacier variations 1930-1960, 1960-1990 and 1990-1991. Sigurdsson, O., [1992,ice] 48-5316
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] 48-4985
Jökulhlaup records 1984-1988. Sigurdsson, O., et al, [1992,ice] 48-5315
Large-scale structure of the Iceland-Faeroe Front. Perkins, H., [1992,eng] 48-1780
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] 48-5549
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Snow avalanches in Iceland during winter 1989-1990. Magnusson, M.M., [1992,ice] 48-5317
Snow avalanches in Iceland, winter 1988-89. Magnússon, M.M., [1991,ice] 48-5294
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826
Stabilisation of the tidal entrance at Hornafjordur, Iceland. Viggosson, G., et al, [1993,eng] 48-157
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831

—Grímsvötn
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363

—Keflavik
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] 48-5484

—Myvatn, Lake
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] 48-942

—Nautárdalur
Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] 48-5179

—Vatnajökull
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292

Iceland Sea
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] 48-3944
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] 48-5123
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322

Icequakes
Icequakes recorded at Syowa Station, Antarctica. Kaminuma, K., et al, [1993,eng] 48-3278
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153

Icicles
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] 48-2597

Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] 48-4342
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
Growth rates of icicles. Maeno, N., et al, [1994,eng] 48-5168
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] 48-2598
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860

Icing
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] 48-2086
Simulation of icicle growth using a 3D random walk model. Szilder, K., et al, [1993,eng] 48-817
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860
See [also]: Aircraft icing; Glaze; Ice loads; Power line icing; Road icing; Ship icing

Icing detection
See [also]: Ice detection

Icing load
See [also]: Ice loads

Icing rate
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Field data on transmission line icing collected at the Mount Valin test site. Druez, J., et al, [1994,eng] 48-3020
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] 48-4338
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Study of precipitation rate on holdover performance of aircraft de-icing and anti-icing fluids. Laforte, J.L., et al, [1994,eng] 48-3367
Vessel icing in Alaskan waters—1979 to 1984 data set. Pease, C.H., et al, [1985,eng] 48-1143
See [also]: Ice accretion

Illuminating
Radioluminescent lights score high in VFR night air taxi tests. Jensen, G.A., et al, [1987,eng] 48-4134

Illumination
See [also]: Sunlight

Image processing
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] 48-3673
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] 48-1347
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Correction of radiometric distortions in snow cover imagery. Holecz, F., et al, [1993,eng] 48-1685
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] 48-1713
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] 48-2927
Dynamic local thresholding technique for sea ice classification. Haverkamp, D., et al, [1993,eng] 48-1694
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] 48-1691
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] 48-1692
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Geophysical field area fraction estimation. Key, J.R., [1993,eng] 48-2161
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] 48-1345
Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] 48-4752
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578
Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] 48-1064
Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] 48-3483
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930
Interferometric SAR data analysis on Ronne Ice Shelf. Reinhold, A., et al, [1992,eng] 48-249
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] 48-81
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] 48-2427
Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92. Shuchman, R.A., et al, [1993,eng] 48-1695
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] 48-2824
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] 48-4384
Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] 48-4472
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] 48-1055
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] 48-1915
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
Satellite detection of the boreal forest-tundra transition. Awaya, Y., et al, [1993,eng] 48-1697
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] 48-3455
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] 48-4034
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670
Surface state of subpolar glaciers from satellite data. Lefauconnier, B., et al, [1991,fre] 48-3713
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] 48-1772
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] 48-1330
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] 48-1300
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Imaging
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery. Sievers, J., et al, [1991,eng] 48-2
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] 48-1915
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] 48-1425
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Use of visible satellite imagery over ice sheets. Vaughan, D.G., et al, [1992,eng] 48-917
Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] 48-5501

Impact
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] 48-4371
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370

Impact strength
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Composites for roadside hardware. Dutta, P.K., et al, [1993,eng] 48-2094
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] 48-4334
Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] 48-3981
Experimental and numerical analysis of floating ice beam impact forces against a sloped structure. Coutermarsh, B.A., [1994,eng] 48-5148
Influence of low temperature on energy absorption in laminated composites. Dutta, P.K., et al, [1993,eng] 48-2061
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] 48-2080
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Observations of the dynamic structure of snow avalanches. Nishimura, K., et al, [1993,eng] 48-2873
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] 48-1539
Stress waves through graphite/epoxy laminated plates. Hui, D., et al, [1993,eng] 48-2063

Impact tests
Applications of recycled plastics for roadside safety hardware. Dutta, P.K., et al, [1994,eng] 48-3268
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] 48-2380
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice impact on ship hulls. Hieronymi, E., [1993,eng] 48-116
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] 48-2080
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469

Notched Charpy bar impact test on frozen soil. Yu, Q.H., et al, [1993,eng] 48-5258
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] 48-4887
Root damage analysis of aircraft engine blade subject to ice impact. Reddy, E.S., et al, [1992,eng] 48-4882
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] 48-4909
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] 48-1539
Vertical and inclined edge-indentation of freshwater ice sheets. Finn, D.W., et al, [1993,eng] 48-2730

Impurities
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] 48-4025
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] 48-5145
Continuous analysis technique for trace species in ice cores. Sigg, A., et al, [1994,eng] 48-3612
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] 48-3385
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] 48-400
Experimental study on influence of impurity on ice creep at - 1 degree centigrade. Huang, M.H., et al, [1993,chi] 48-1442
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
Geoecological characteristics of Siberian cities. Antipov, A.N., ed. [1990,rus] 48-3725
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] 48-2710
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] 48-2713
Ice core electrical response to chemical impurities. Moore, J.C., et al, [1994,eng] 48-4696
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] 48-10
Ion chromatography of alpine snow. Nickus, U., et al, [19[illegible],eng] 48-5146
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] 48-2714
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] 48-2712
Water treatment apparatus and method. Connery, C.A., [1989,eng] 48-4082
See [also]: Gas inclusions; Snow impurities

Indexes (ratios)
Antarctic sea-ice relationships with indices of the atmospheric circulation of the Southern Hemisphere. Carleton, A.M., [1989,eng] 48-1660
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] 48-3932
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135

India
—Himalaya Mountains
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] 48-2802
Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] 48-2790

—Himalayas
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273

Indian Ocean
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] 48-3290
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391

Indicating instruments
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] 48-464
See [also]: Monitors; Thermostats

Indices
See [also]: Permafrost indicators

Indoor climates
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845

Industrial buildings
Aerodynamic protection of premises against cold through apertures. Shilkrot, E.O., et al, [1994,eng] 48-3865
Energy efficiency in heating and ventilating. Naumov, A.L., et al, [1994,eng] 48-3863
Heating and ventilation systems for industrial buildings. Finkel'shtein, S.M., [1994,eng] 48-3861
Moisture protection of the industrial building enclosures in a cold climate by using dry jets. IUr'ev, O.F., [1994,eng] 48-3866
Principles and application of mechanical ductless ventilation systems. Maevskii, L., [1994,eng] 48-3862
Recovering heat in manufacturing facilities with energy capacious technology. Petersons, G., [1994,eng] 48-3854
Reduction of the energy consumption in air curtains. Nikulin, M.V., et al, [1994,eng] 48-3864

Industrial development
See [also]: Economic development

Infiltration
See [also]: Permeability; Seepage

Inflatable structures
Arctic survival equipment testing and analysis. Dick, R.A., et al, [1992,eng] 48-5105
Controller valve for deicer. Hlavac, K.A., [1992,eng] 48-1368
De-icer; inflatable tubes. Tritt, P.G., et al, [1991,eng] 48-2248
Inflatable rucksack for avalanche survival. Rodger, I., [1994,eng] 48-3272
Pneumatic deicer. Ely, D.N., et al, [1988,eng] 48-4272

Infrared equipment
Cold regions performance of optical-fiber and pulsed near-infrared intrusion detection systems. Peck, L., [1994,eng] 48-1542
Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] 48-4122
Passive infrared ice detection technique for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-1959
Snow surface temperature measurements by infrared scanner. Moritz, E., [1986,ger] 48-618
Thermal variation in vegetated or snow-covered background scenes and its effect on passive infrared systems. Peck, L., [1993,eng] 48-2535

Infrared mapping
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Dual-band infrared imaging for mapping sea ice. Del Grande, N.K., et al, [1992,eng] 48-4760
Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] 48-4472

Infrared photography
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] 48-3075
Experimental investigation of passive infrared ice detection for helicopter applications. Dershowitz, A.L., et al, [1991,eng] 48-4871
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] 48-3712
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413

Infrared radiation
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] 48-4819
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] 48-4474
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Measurement of atmospheric radiation for winter road management. Shimizu, M., et al, [1993,eng] 48-1206

Infrared reconnaissance
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] 48-3758
Impact of different backgrounds on thermal infrared IDS performance. Lacombe, J., [1993,eng] 48-1094
Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] 48-2217
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] 48-81
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762

Infrared spectroscopy
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] 48-5477
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] 48-1755
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] 48-3618
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] 48-5456
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] 48-5478
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Infrared studies of sulphuric acid films. Middlebrook, A.M., et al, [1993,eng] 48-3638
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] 48-3543
Measurement of ice fraction in NaCl solution with FTIR. Mizoguchi, M., et al, [1992,eng] 48-293
Methanol ice in the protostar GL 2136. Skinner, C.J., et al, [1992,eng] 48-3617
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] 48-3150
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] 48-1710
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] 48-1750
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] 48-4483
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476

Inlets
See [also]: Water intakes

Insolation
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] 48-4197
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] 48-947
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] 48-952
Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] 48-3343
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] 48-1657
Mass and heat balance of Ornusbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344

Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] 48-5418
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543
See [also]: Solar radiation

Instrument errors
See [also]: Accuracy

Instruments
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
See [also]: Borehole instruments; Indicating instruments; Measuring instruments; Meteorological instruments; Radiation measuring instruments; Recording instruments; Strain measuring instruments

Insulation
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al [1994,eng] 48-3390
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska. Haynes, F.D., et al, [1994,eng] 48-5409
See [also]: Electrical insulation; Pipeline insulation; Thermal insulation

Intake systems
See [also]: Water intakes

Interception
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Severe snow loads on mountain afforestation in Japan. Nitta, R., et al, [1991,eng] 48-3702
Snow depth in forests with various openness grades of canopies. Goto, Y., et al, [1993,jpn] 48-3180
Snow-cover condition in Japan and damage of the sugi *(Cryptomeria japonica* D. Don). Taira, H., [1991,eng] 48-3703
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921

Interfaces
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322
See [also]: Air water interactions; Ice air interface; Ice solid interface; Ice vapor interface; Ice water interface; Liquid solid interfaces; Snow air interface; Snow ice interface; Soil air interface

Interfacial tension
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] 48-2862
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689

Internal friction
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501

International cooperation
1993 Council Meeting, Abisko, Sweden. Report. International Arctic Science Committee, [1993,eng] 48-298
AARI Arctic expeditions in 1990. Ippolitov, V.S., et al, [1992,eng] 48-735
Arctic Monitoring and Assessment Program (AMAP). Lange, M.A., [1993,eng] 48-3323
Arctic perspectives.[1992,eng] 48-1810
Arctic policy bibliography. Green, K.W., et al, [1991,eng] 48-4939
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-2122
Canadian SARES project within the framework of the Canada-Japan Complementarity Study. Legendre, L., [1993,eng] 48-1072
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Changing circumpolar north: opportunities for academic development. Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992, [1994,eng] 48-4403
Cooperation in Antarctica. Sarukhanian, E.I., [1992,eng] 48-730
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] 48-3029
European project COST 309, road weather conditions. Nysten, E., [1993,eng] 48-1203
Finnish-Swedish lawsuit over icebreaker hull form.[1992,ger] 48-2814
First international expedition "World Scientists with Regard to Extreme North". Babaev, IU.M., [1992,eng] 48-727
First Soviet-American oceanographic expedition in the Chukchi Sea (CHOEX/ICE-90). Sen'ko, N.P., [1992,eng] 48-737
Forging new partnerships in the north: the Northern Forum and the Barents Euro- Arctic Council. Lange, M.A., [1993,eng] 48-3321
Geography meetings, research, and education in the United States. Shi, Y.F., [1993,chi] 48-4570
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] 48-1781
High latitudes: a history of Swedish polar travels and research. Liljequist, G.H., [1993,eng] 48-1811
IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. Baxter, M.S., et al, [1993,eng] 48-4519
IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. Sjoeblom, K.L., et al, [1993,eng] 48-4518
IASC as legal basis for international arctic cooperation. Machowski, J., [1993,eng] 48-5000
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
International Arctic Polynya Program. Legendre, L., [1990,eng] 48-4666
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717
Joint ventures and the Soviet Arctic. Butler, W.E., [1990,eng] 48-2609
Nepal-Japan cooperation in research on glaciers and climates of the Nepal Himalaya. Higuchi, K., [1993,eng] 48-2769
New political and scientific trends in the Arctic. Rogne, O., [1993,eng] 48-181
"North Pole" drifting stations today and tomorrow. Ippolitov, V.S., [1992,eng] 48-738
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Prospective railroad construction under the Bering Strait. Kudoiarov, L.I., [1994,eng] 48-4771
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] 48-2770
Report of R/V cruises in Barents and Greenland Seas. Vinje, T., [1992,eng] 48-2896
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
Russia's far north opened up for West. MacKenzie, D., [1993,eng] 48-2803
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Soviet-Norwegian expedition in the Barents Sea. Abramov, V.A., [1992,eng] 48-736
Spring thaw in the land of Cold War coal. Abbott, S., [1993,eng] 48-1648
Study of global change. International Council of Scientific Unions, [1989,eng] 48-2365
Technological, environmental and legal issues in northern development. Lange, M.A., [1994,eng] 48-3995
U.S. arctic research in a technological age. Johnson, P.L., [1992,eng] 48-2041

International law
Law of the sea and the polar regions. Rothwell, D.R., et al, [1994,eng] 48-5120

Interstitial ice
Change of pore ice and ice phase stress during the creep process of frozen soil. Ma, W., et al, [1993,chi] 48-1440
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050

Introduced plants
Caryopteris mongholica (Verbenaceae)—rare species of Siberian flora: its biology and introduction. Semenova, G.P., [1993,rus] 48-1631
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] 48-207
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269

Inversions
See [also]: Temperature inversions

Ion density (concentration)
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Application of chromatograph in the study of frozen soils. Deng, Y.S., [1993,chi] 48-1457
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] 48-5145
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] 48-4654
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] 48-3154
Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] 48-1858
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] 48-1854
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] 48-71
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] 48-5146
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Results of measurements of negative ion concentration in the Arctic stratosphere. Ermakov, V.I., et al, [1993,rus] 48-2494
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050
See [also]: Hydrogen ion concentration

Ion diffusion
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050
Unfrozen water types in frozen soils. Ostroumov, V.E., [1993,eng] 48-2298

Ion exchange
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] 48-444
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
Unfrozen water types in frozen soils. Ostroumov, V.E., [1993,eng] 48-2298

Ionization
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955

Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] 48-341
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] 48-2052

Ions
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms. Cragin, J.H., et al, [1993,eng] 48-1006

Ireland
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564

Irradiance
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] 48-3733

Irrigation
Characteristics of the layout and operation of meliorative channels in Yakutia. Chzhan, R.V., et al, [1992,rus] 48-4786
Environmental protection in the design of land irrigation and water supply (Yakutia). Fedorov, P.F., [1992,rus] 48-4792
Procedures for building open irrigation channels with a high ground ice level. Ugarov, I.S., [1992,rus] 48-4787
Soil water content regulating procedure. Bagirov, M.N., et al, [1992,eng] 48-4068

Islands
See [also]: Artificial islands; Ice islands

Isostasy
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Holocene marine coastal evolution of the United States. Fairbridge, R.W., [1992,eng] 48-1924
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] 48-1383
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] 48-2755

Isothermal chambers
See [also]: Cold chambers

Isotherms
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Modeling the transport of heavy metals in soils. Selim, H.M., et al, [1990,eng] 48-3493
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984

Isotope analysis
^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
1550-1620: a period of summer accumulation in the Queen Elizabeth Islands. Alt, B.T., [1985,eng] 48-2729
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Ancient climate from deuterium content of water in volcanic glass. Friedman, I., et al, [1993,eng] 48-1500
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] 48-944
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Climate change in continental isotopic records. Swart, P.K., ed, et al, [1993,eng] 48-1494
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] 48-4200
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Environmental radioactivity in the Arctic and Antarctic; proceedings. International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993, [1993,eng] 48-4510
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] 48-3290
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] 48-2388
Geomagnetic chronology for antarctic ice accumulation. Mazaud, A., et al, [1994,eng] 48-4692
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] 48-2799
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496
Interpreting past climate from stable isotopes in continental organic matter. Edwards, T.W.D., [1993,eng] 48-1501
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Isotope and chemical study of ice core from the Filchner-Ronne Ice Shelf. Minikin, A., et al, [1991,eng] 48-5
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] 48-4973
Isotope shifts reflect Greenland moisture source changes. Charles, C.D., et al, [1994,eng] 48-2667
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] 48-1497
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] 48-1495
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Last deglaciation event in the eastern central Arctic Ocean. Stein, R., et al, [1994,eng] 48-3737
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
Oxygen-18 of snow meltwater and snow cover. Suzuki, K., [1993,jpn] 48-3187
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps. Dray, M., et al, [1990,fre] 48-1591
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Transport of radon between South America and the Antarctic Peninsula. Pereira, E.B., et al, [1993,eng] 48-4539
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391

Isotopes
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-213
Gravitational separation in polar ice [and response]. Craig, H., et al, [1993,eng] 48-1902
Pellet injection technology. Combs, S.K., [1993,eng] 48-1762
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] 48-2534
See [also]: Carbon isotopes; Oxygen isotopes; Radioactive isotopes

Isotopic labeling
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406

Italy
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] 48-4763
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] 48-5570
Recent trends and prospect of Italian glaciological research. Smiraglia, C., [1993,ita] 48-4112
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] 48-4117
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096

—Abruzzo
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] 48-4102

—Adamello, Mt.
Dendrochronology and glacier variations in the Italian Alps. Baroni, C., et al, [1993,ita] 48-4095

—Aetna, Mt.
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] 48-4105

—Alps
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] 48-356
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] 48-616
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] 48-4116

—Apennines
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562

—Belluno
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192

—Bresnie Alps
Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111

—Capellino, M.
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] 48-615

—Gesso
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] 48-4108

—Lombardy Alps
Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107

—Mont Blanc
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098

—Stura di Demonte
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648

—Val d'Ultimo
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] 48-4110

—Viso, Mt.
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649

Japan
Analysis of snowfall characteristics and various snow disasters in urban area. Suzuki, T., et al, [1993,jpn] **48-2003**
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] **48-1974**
Application of in-situ surface recycling methods in cold areas. Kikukawa, S., et al, [1993,eng] **48-5072**
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] **48-2844**
Assuring the safety of road traffic in winter. Kinki Regional Construction Bureau, [1988,jpn] **48-582**
Avalanche hazards and their weather patterns in the Tohoku District. Ito, T., et al, [1993,jpn] **48-1969**
Bulletin on road snow removal for 1987. Japan. Ministry of Construction. Road Bureau, [1988,jpn] **48-573**
Bulletin on road snow removal for 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] **48-707**
Bulletin on the budget for snow and cold weather operations for 1987. Fujieda, H., [1987,jpn] **48-283**
Bulletin on the budget for snow and cold weather operations for 1988. Japan. Ministry of Construction. Road Bureau, [1988,jpn] **48-565**
Changes and future topics for snow and cold weather operations in Aomori Prefecture. Sato, N., [1987,jpn] **48-272**
Characteristics of winter traffic accidents in the Tohoku Region. Horii, M., et al, [1989,jpn] **48-710**
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] **48-2858**
Cold region road maintenance in the 9th Five-Year Plan. Suzuki, A., [1988,jpn] **48-576**
Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] **48-2872**
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] **48-1853**
Current status and future prospects of studless tires. Hayashi, H., [1989,jpn] **48-671**
Current status and study topics for the dissemination of road traffic information. Shibata, M., et al, [1986,jpn] **48-255**
Current status of snow removal equipment. Yamamoto, H., [1988,jpn] **48-555**
Current status of the snowy region. Shinjo City Construction Department, [1986,jpn] **48-23**
Deaths and injuries from snow accidents in Japan. Numano, N., [1993,jpn] **48-3185**
Density of newly fallen snow along the coast of the Japan Sea. Yamada, Y., [1993,jpn] **48-4233**
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] **48-552**
Development of operations management systems for snow removal equipment. Oana, H., et al, [1988,jpn] **48-556**
Development of snow melting works using sewage treatment water. Toyama Prefecture Civil Engineering Department, [1988,jpn] **48-660**
Development of water resources from snow dams. Tanaka, S., [1988,jpn] **48-657**
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] **48-704**
Effect of road surface and meteorological conditions on traffic accidents in winter. Kaku, T., [1989,jpn] **48-675**
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] **48-3426**
Emergency readiness in heavy snow region. Part 1. Yamagata, T., et al, [1993,jpn] **48-1978**
Emergency readiness in heavy snow region. Part 2. Takahashi, A., et al, [1993,jpn] **48-1979**
Estimated budget requirements for snow and cold weather operations for 1987. Fujieda, H., [1986,jpn] **48-267**
Estimated budget requirements for snow and cold weather operations for 1988. Fujieda, H., [1987,jpn] **48-554**
Estimated budget requirements for snow and cold weather operations for 1989. Nakagawa, M., [1988,jpn] **48-665**
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] **48-2848**
Estimation method of newly fallen snow depth. Yamada, Y., [1993,jpn] **48-4234**
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] **48-813**
Estimation of monthly precipitation by geographical factors and meteorological variables. Yamada, K., [1990,eng] **48-1588**
Evaluating snow risk potential in urban areas. Kitaura, M., et al, [1993,jpn] **48-1980**
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] **48-4919**
Examples of radar observations of snowfall in Hokuriku. Yoshino, F., et al, [1989,jpn] **48-667**
External design of houses in a cold and snow-fall region in the Tohoku District. Hirai, K., [1993,jpn] **48-1982**
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] **48-5085**
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] **48-3163**
Forecasting system for snow and freezing. Masuda, Y., et al, [1986,jpn] **48-20**
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] **48-5313**
Frost heave study in Japan. Ishizaki, T., [1993,eng] **48-1427**
Growth of avalanche education in Japan. Nitta, R., et al, [1994,eng] **48-3277**
Hokkaido University Institute of Low Temperature Science. Fujino, K., [1987,jpn] **48-278**
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] **48-4235**
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] **48-567**
Joint tests on stud ravelling. Ito, M., [1988,jpn] **48-570**
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] **48-3848**
Large scale avalanche at the Hakuba snow patch occurred on May 4th, 1992. Terada, H., et al, [1993,jpn] **48-3178**
Looking back on the snowstorms of 1986. Endo, I., et al, [1986,jpn] **48-15**
Making a snowproof town—Nagaoka New Town. Nishida, T., [1988,jpn] **48-559**
Method of evaluating the cost of snow removal. Sakai, T., et al, [1993,jpn] **48-3186**
Nagaoka thriving in the snow. Nagaoka City Civil Engineering Department, [1987,jpn] **48-553**
Ninth Five-Year Plan at the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1988,jpn] **48-579**
Oxygen-18 of snow meltwater and snow cover. Suzuki, K., [1993,jpn] **48-3187**
Palsa formation in the Daisetsu Mountains, Japan. Sone, T., et al, [1993,eng] **48-5238**
Pilot program to provide pedestrian space in winter. Suzuki, A., [1989,jpn] **48-699**
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] **48-4237**
Positioning of houses on lots in snow districts. Fukazawa, D., [1993,jpn] **48-1985**
Probe for acidity of falling snow and deposited snow. Hasegawa, T., et al, [1993,jpn] **48-1964**
Progress and future prospects for snow and cold weather operations. Terada, A., [1987,jpn] **48-269**
Prospects for measures to safeguard road traffic in winter. Wada, J., [1987,jpn] **48-270**
Recent trends in research on snow and ice disaster prevention. Nakamura, T., [1987,jpn] **48-275**
Recent trends in snow melting facilities in the Hokuriku Region. Kuwahara, T., [1989,jpn] **48-711**
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] **48-5076**
Regulations on studded tire usage and winter road administration in Japan. Kanzaki, H., et al, [1993,eng] **48-1187**
Relation between snow and damage on external wall of reinforced concrete construction. Tashiro, K., et al, [1993,jpn] **48-1983**
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] **48-2846**
Report on historical changes of road snow removal technique in Akita Prefecture. Ito, T., et al, [1993,jpn] **48-1970**
Report,on the budget items for snow and cold weather operations in 1985. Fujieda, H., [1986,jpn] **48-27**
Report on the budget items for snow and cold weather operations in 1987. Nakagawa, M., [1988,jpn] **48-591**
Report on the budget items for snow and cold weather operations in 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] **48-716**
Research developments in sophisticated automation technology for snow removal in cold regions. Sayama, S., et al, [1989,jpn] **48-676**
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction. Onoda, M., [1987,jpn] **48-274**
Research studies on the snow load on roofs (2). Tosaka, M., et al, [1993,jpn] **48-1997**
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] **48-276**
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] **48-703**
Roadside message system for icing conditions. Nishihara, H., et al, [1987,jpn] **48-279**
Sangoku Pass National Highway. Abe, A., [1989,jpn] **48-678**
Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] **48-2973**
Severe snow loads on mountain afforestation in Japan. Nitta, R., et al, [1991,eng] **48-3702**
Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] **48-5080**
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] **48-2821**
Snow and cold weather countermeasures at the Chugoku Regional Construction Bureau. Chugoku Regional Construction Bureau, [1988,jpn] **48-583**
Snow and cold weather countermeasures in 1985. Okeguchi, I., [1986,jpn] **48-16**
Snow and cold weather countermeasures on highways. Japan Highway Public Corporation, [1988,jpn] **48-584**
Snow and cold weather operations at the Chubu Regional Construction Bureau. Chubu Regional Construction Bureau, [1988,jpn] **48-581**
Snow and cold weather operations at the Kanto Regional Construction Bureau. Kanto Regional Construction Bureau, [1988,jpn] **48-580**
Snow and ice countermeasures in 1985. Murase, K., et al, [1986,jpn] **48-17**
Snow and ice countermeasures on highways. Hayashi, Y., [1987,jpn] **48-277**
Snow area detection by using AVHRR/NOAA. Kazama, S., et al, [1993,eng] **48-1724**
Snow melting measures in Asahikawa City. Ito, H., et al, [1988,jpn] **48-566**
Snow removal drain at Kutchian on National Highway 5. Nakamura, E., [1986,jpn] **48-22**
Snow removal plan for sidewalks and snowy roads in Shibata City. Shimotsuma, I., [1989,jpn] **48-701**
Snow-cover condition in Japan and damage of the sugi *(Cryptomeria japonica* D. Don). Taira, H., [1991,eng] **48-3703**
Snowdrift countermeasures. Sato, S., [1987,jpn] **48-546**
Snowfall forecasting system in Sapporo City. Shibuya, K., [1989,jpn] **48-670**
Snowstorms and countermeasures in 1985. Yamanaka, Y., [1986,jpn] **48-14**
Study of cloud and snow cover over Kinki district, west Japan. Inoue, J., [1990,eng] **48-4873**
Study on blowing snow countermeasures and traffic control. Togashi, Y., et al, [1986,jpn] **48-258**
Study on countermeasures for snowdrifts and drifting snow on National Highway 113. Tamaki, M., [1986,jpn] **48-259**
Study on the application of surface recycling methods. Nakanishi, T., et al, [1993,eng] **48-5074**
Study on traffic volume at signal controlled intersections in winter. Sotoi, T., et al, [1986,jpn] **48-21**
Study on winter road management methods using forecast reports. Wada, J., et al, [1989,jpn] **48-668**
Summary of comprehensive snow countermeasures in Toyama Prefecture. Maeda, T., [1988,jpn] **48-560**
Summary of the road report system of the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1989,jpn] **48-669**
Summary of the snow and cold weather operations budget for 1989. Japan. Ministry of Construction. Road Bureau, [1989,jpn] **48-708**
Synoptic observation of sea ice. Hattori, T., et al, [1990,jpn] **48-4877**
Tenth Five-Year Plan for road maintenance. Ando, A., [1988,jpn] **48-575**
Tohoku regional snow and cold weather operations. Tohoku Regional Construction Bureau, [1988,jpn] **48-578**
Traffic accidents in the snowy season (1). Kaku, T., [1989,jpn] **48-698**
Traffic accidents in the snowy season (2). Kaku, T., [1989,jpn] **48-709**
Usable space in houses with and without raised floors. Numano, N., [1993,jpn] **48-1984**
Viewpoint on the sidewalk snow removal plan in Takikawa City. Goto, N., [1989,jpn] **48-700**
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] **48-256**
Winter at Lake Biwa. Kubota, T., [1988,jpn] **48-564**
Winter in Tottori. Masui, K., [1986,jpn] **48-263**
Winter on five mountain roads. Umejima, M., [1988,jpn] **48-664**
Winter on Sengan Highway. Sato, T., [1989,jpn] **48-706**
Winter road surface control in the Hokuriku Region. Sakai, T., et al, [1993,eng] **48-5082**
—Biwa, Lake
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] **48-2863**
—Fukushima Prefecture
Winter on the Kurigo Ridge on National Highway 13. Ito, T., [1988,jpn] **48-589**
—Hokkaido
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] **48-5624**
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] **48-3155**
Atmospheric and oceanographic studies in Lake Saroma. Shirasawa, K., et al, [1993,eng] **48-1073**
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] **48-3216**
Characteristics of snow cover taking account of ram hardness in Hokkaido. Akitaya, E., et al, [1992,jpn] **48-3205**
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] **48-3154**
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] **48-4236**
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] **48-441**
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] **48-1075**
Experimental study on the overtopping of breakwaters by ice floes and waves. Saeki, H., et al, [1993,eng] **48-156**
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] **48-1028**
Hydro-meteorological automatic observation system and research plan. Ishikawa, N., et al, [1992,jpn] **48-3218**
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] **48-1050**
Influences of regulation of studded tire in Hokkaido. Asano, M., et al, [1993,eng] **48-1200**
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] **48-3957**
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] **48-1053**
Model tests on controlling ice floes movement at the inlet of the Saroma lagoon. Enoki, K., et al, [1993,eng] **48-154**

Northernmost winter roads. Takebayashi, T., et al, [1987,jpn] 48-282
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] 48-1071
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line). Fujimura, M., [1993,jpn] 48-1031
Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] 48-3157
Pollution of fallen snow in urban areas. Tachibana, H., et al, [1994,eng] 48-3966
Preventive measures against pack ice damage to marine resources and fishery facilities. Enoki, K., et al, [1994,eng] 48-3951
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] 48-3993
Regional economy along the Okhotsk Sea in Hokkaido. Furuya, A., et al, [1994,eng] 48-3992
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Ships' navigability in the ice-infested waters around the port of Abashiri. Narita, S., et al, [1990,jpn] 48-4676
Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] 48-5581
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1990,eng] 48-4876
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1998,eng] 48-4869
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] 48-1199
Water circulation and flow regimes in Lake Saroma. Takeuchi, T., [1993,eng] 48-1076
Winter in Shiribeshi. Higuchi, K., [1989,jpn] 48-715
Winter road-surface conditions and pavement problems in Hokkaido. Kawamura, K., et al, [1993,eng] 48-5084

—Ishikawa Prefecture
Kanazawa in snow. Takamoto, M., [1986,jpn] 48-34
Road snow removal in Ishikawa Prefecture. Adachi, M., [1986,jpn] 48-18

—Iwate Prefecture
Sawauchi Village Institute of Snow Country Culture. Takahashi, T., [1989,jpn] 48-673

—Nagano Prefecture
Winter roads in Nagano Prefecture. Higashiura, K., [1988,jpn] 48-572

—Norikura, Mt.
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995

—Sapporo
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] 48-3206
Investigation of the roof shape and roofing materials of wooden houses in Sapporo. Hoshino, M., et al, [1993,jpn] 48-1990

—Saroma, Lake
Canadian SARES project within the framework of the Canada-Japan Complementarity Study. Legendre, L., [1993,eng] 48-1072

—Shirouma-Norikura, Mt.
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939

—Taisetsu Mountains
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] 48-2348

—Tohoku
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow type distribution in the coldest season in Japan. Daimaru, H., et al, [1993,jpn] 48-3181

—Toyama Prefecture
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] 48-568

—Yamagata Prefecture
Snow removal on Gassan Mountain highway. Omura, S., et al, [1988,jpn] 48-558
Study on snowdrift countermeasures in the Shonai region. Sawada, K., et al, [1987,jpn] 48-545

Japan Sea
Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] 48-4874

Jet engines
BLASIM: a computational tool to assess ice impact damage on engine blades. Reddy, E.S., et al, [1993,eng] 48-2640
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Low power deicer tests on a swept inlet component. Bond, T.H., et al, [1993,eng] 48-4880
Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] 48-1753
Root damage analysis of aircraft engine blade subject to ice impact. Reddy, E.S., et al, [1992,eng] 48-4882
Side discharge anti-ice manifold. Miller, S.M., [1993,eng] 48-1654
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] 48-2806

Jets
See [also]: Hydraulic jets

Joints (junctions)
Cross-type clamp to join snow net cables. Bolliger, R., [1993,eng] 48-1284
Problems in welding of structures used in polar regions of Russia. Larionov, V.P., et al, [1994,eng] 48-3978

Kaolinite
See [also]: Clay minerals

Kara Sea
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] 48-4178
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305

Karst
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Snowmelt in medium-high mountains and recharging of underlying karst. Chauve, P., et al, [1990,fre] 48-1574
See [also]: Thermokarst

Kazakhstan
Lichens of the genera *Cladina* and *Cladonia* from southern Altai (eastern Kazakhstan). Myrzakulova, Z.S., [1993,rus] 48-5279
Method of long range forecasting of freezeup on rivers in Kazakhstan. Shmarova, I.N., [1992,rus] 48-1953
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskii, I.V., ed, [1992,rus] 48-4452
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] 48-4754

—Balkhash Lake
Arrival date of stable snow cover and the extent of cold period precipitation in the Ili-Balkhash basin. Gal'ster, N.V., [1992,rus] 48-4467

—Dzhungarskiy Alatau
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years. Putilina, N.M., et al, [1992,rus] 48-4470
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements. Cherkasov, P.A., et al, [1992,rus] 48-4459
Mudflows of Dzhungarskiy Alatau and some characteristics of their formation. Medeuov, A., [1992,rus] 48-4463
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469

—Ili River
Arrival date of stable snow cover and the extent of cold period precipitation in the Ili-Balkhash basin. Gal'ster, N.V., [1992,rus] 48-4467

—Zailiyskiy Alatau
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years. Putilina, N.M., et al, [1992,rus] 48-4470
Dynamic mass exchange in Tuyuksu Glacier. Makarevich, K.G., et al, [1992,rus] 48-4457
Dynamics of the development of morainal formations on the northern slope of Zailiyskiy Alatau. Tokmagambetov, G.A., et al, [1992,rus] 48-4464
Method of daily forecasting of wet avalanches under conditions in the central mountain zone of Zailiyskiy Alatau. Kolesnikov, E.L, [1992,rus] 48-4458
Multiyear variation of annual and seasonal totals of precipitation and their relation to air temperature. Sudakov, P.A., et al, [1992,rus] 48-4460
Typification of winters according to the snow accumulation regime in the example of Zailiyskiy Alatau. Girovka, N.N., [1992,rus] 48-4454

Kenya

—Kenya, Mount
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] 48-1330

Kerguelen Plateau
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632

Korea
Permafrost in the north of Korean peninsula. An, V., [1993,eng] 48-511
Surface observation climatic summaries for Kunsan AB, Korea.[1991,eng] 48-4738

Kyrgyzstan
Hydrogeology and engineering geology of the Kirghiz SSR. Talipov, M.A., ed, [1990,rus] 48-1236
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] 48-187

—Chuysk
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan. Talipov, M.A., et al, [1990,rus] 48-1237

—Tien Shan
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061

Laboratories
CRREL retrospective 1986-1991. U.S. Army Cold Regions Research and Engineering Laboratory, [1992,eng] 48-2132
CRREL's first 25 years, 1961-1986. U.S. Army Cold Regions Research and Engineering Laboratory, [1986,eng] 48-2070
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology.[1994,eng] 48-2482
Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] 48-1426
State Key Laboratory of Frozen Soil Engineering, 1993. Lanzhou Institute of Glaciology and Geocryology, [1993,chi] 48-2130
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772

Laboratory techniques
Atmosphere-snow transfer function for hydrogen peroxide. Conklin, M.H., et al, [1993,eng] 48-2675
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-3679
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] 48-5177
Dyeing of snow surfaces to observe snow structure. Kovacs, A., [1993,eng] 48-3601
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Evaluation of pre-extraction analytical holding times for tetryl in soil. Jenkins, T.F., [1994,eng] 48-5410
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] 48-394
Grinding of frozen soil samples. Esala, M.J., [1994,eng] 48-5389
Ice core processing at Dome F, Antarctica. Shoji, H., et al, [1994,eng] 48-5355
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] 48-3558
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215
Physical chemistry of the H2SO4/HNO3/H2O system. Molina, M.J., et al, [1993,eng] 48-330
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-4759
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954
Structural transitions in amorphous water ice and astrophysical implications. Jenniskens, P., et al, [1994,eng] 48-5108
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973

Labrador Sea
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Formation of extremely severe ice conditions in the Labrador Sea in winter 1990/1991. Mironov, E.U., et al, [1992,eng] 48-734
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] 48-4188
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Oceanic general circulation model applied to marginal seas. Quon, C., [1990,eng] 48-776
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227

Lacustrine deposits
Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Glacial Lake Agassiz meltwater influx int › Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] 48-3529
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724

Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942

Lake bursts
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] 48-4582
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal. Meon, G., et al, [1993,eng] 48-2797
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] 48-2796
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Jökulhlaup records 1984-1988. Sigurdsson, O., et al, [1992,ice] 48-5315
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] 48-2798
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] 48-1581
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363

Lake effects
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York. Sykes, R.B., [1993,eng] 48-2959
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall in the lee of Lakes Erie and Ontario. Leathers, D.J., et al, [1993,eng] 48-2960
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835

Lake ice
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] 48-5548
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] 48-1721
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] 48-3484
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] 48-1793
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
Ice formation on Ladoga Lake and its short term forecast. Sevast'ianova, N.V., [1992,rus] 48-1951
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] 48-4401
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] 48-1794
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Pump freeze corer for recent sediments. Renberg, ., et al, [1993,eng] 48-1527
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] 48-1787
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] 48-4162

Lake water
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] 48-2863
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake. Smith, R.L., et al, [1993,eng] 48-1664
Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] 48-1599
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] 48-2095
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] 48-2552
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736

Lakes
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] 48-3044
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] 48-3589
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] 48-3619
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
See [also]: Frozen lakes; Glacial lakes; Icebound lakes; Limnology; Ponds; Reservoirs; Thermokarst lakes

Laminar flow
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861

Land development
Forest tundras of Kamchatka: problems of protection and use. Khomentovskii, P.A., et al, [1989,rus] 48-901
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Strategy of developing regions in the European northeast of the USSR. Bratsev, A.P., et al, [1990,rus] 48-5402

Land ice
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Ice and climate studies. Oerlemans, J., [1989,eng] 48-223

Land reclamation
Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] 48-525
Computer modeling of alpine stream diversions. Brady, T.M., et al, [1993,eng] 48-689
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] 48-3391
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994, [1994,eng] 48-4404
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska. Mironova, N.A., [1988,rus] 48-916
Process and apparatus for cleaning contaminated soil. Rebhan, D., [1990,eng] 48-2264
Questions on the melioration of taiga soils in the Transural. Bachurin, G.V., et al, [1989,rus] 48-907
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
See [also]: Revegetation

Landform identification
See [also]: Terrain identification

Landforms
Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacial geomorphology: modeling processes and landforms. Harbor, J.M., [1993,eng] 48-4940
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] 48-5162
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] 48-3652
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] 48-1218
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] 48-2883
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] 48-4825
Origin of South German Alpine Foreland drumlins. Hebbe, K.A., [1992,eng] 48-2521
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Periglacial geomorphology in the 21st century. Barsch, D., [1993,eng] 48-4941
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] 48-507
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] 48-469
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] 48-364
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] 48-350
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481

Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] 48-4371
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464

Landing strips
See [also]: Aircraft landing areas; Ice runways; Runways

LANDSAT
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] 48-2945
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] 48-1345
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Landsat linear features and mineral occurrences in Alaska. Metz, P.A., [1983,eng] 48-800
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] 48-632
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] 48-2427
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] 48-4929
Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] 48-4928
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327
Satellite detection of the boreal forest-tundra transition. Awaya, Y., et al, [1993,eng] 48-1697
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] 48-4027
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] 48-421
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] 48-1294
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12

Landscape development
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glacial geomorphology: modeling processes and landforms. Harbor, J.M., [1993,eng] 48-4940
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] 48-507
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Planned industrial regions in the Amur taiga zone. Rianskii, F.N., [1989,rus] 48-902
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342

Landscape types
Dynamics of frozen terrain in Central Yakutia after technogenic exposure. Fedorov, A.N., et al, [1992,rus] 48-4797
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
See [also]: Alpine landscapes; Arctic landscapes; Deserts; Forest land; Forest tundra; Karst; Littoral zone; Ocean environments; Polar regions; Steppes; Subarctic landscapes; Subpolar regions; Taiga; Tundra

Landslide control
Problems of slope protection latticeworks in cold regions. Noto, S., et al, [1988,jpn] 48-562

Landslides
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-2299
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia. Leibman, M.O., [1994,eng] 48-3408
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-419
Index system for delineating landslide regions. Wang, C.H., et al, [1992,eng] 48-4409
Landslide hazards in Vermont. Baskerville, C.A., et al, [1993,eng] 48-3283
See [also]: Mudflows

Laptev Sea
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634

Large panel buildings
Report of summer team of the 33rd JARE, 1991-92. Sano, M., [1992,jpn] 48-2444

Large unit construction
See [also]: Modular construction

Lasers
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] 48-4819
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] 48-4831
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] 48-2819
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] 48-2145
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] 48-2843
Laser detection of creep in frozen soil. Wang, T.D., et al, [1993,chi] 48-1456
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] 48-2431
Laser ice removal system. Vega, R., et al, [1990,eng] 48-2197
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] 48-4172
Laser spectrometer for stratospheric trace gas measurement. Podolske, J.R., et al, [1993,eng] 48-2407
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] 48-4907
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Method of determining the stress of local flow in areas of stress concentration at low climatic temperatures. Novopashin, M.D., et al, [1990,rus] 48-61
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] 48-1703
Preliminary study on ice shape tracing with a laser light sheet. Mercer, C.R., et al, [1993,eng] 48-2639
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] 48-4483
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021
Use of a low-powered laser to measure crack front development. Weber, L.J., et al, [1993,eng] 48-98
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Latent heat
Automobile heater using a latent heat storage device. Tsantis, A.P., et al, [1994,eng] 48-3094
Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] 48-1520
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750

Latticed structures
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al [1994,eng] 48-5021

Latvia
Ecological and economical thermo-blocks for external walls. Lapsa, V.A., [1994,eng] 48-3877
Recovering heat in manufacturing facilities with energy capacious technology. Petersons, G., [1994,eng] 48-3854
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889

Laws
See [also]: Legislation

Layers
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] 48-4202
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851

Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] 48-4271
See [also]: Stratification
Leaching
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] 48-4866
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Leakage
See [also]: Air leakage
Legislation
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-1464
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] 48-1019
Canada Water Act Annual Report—1988-90. Environment Canada, [1989,eng] 48-3035
Development of regulations for certification of civil aviation under icing conditions. Cattaneo, G., [1991,fre] 48-3686
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Ice-covered regions in international law. Joyner, C.C., [1991,eng] 48-998
Influences of regulation of studded tire in Hokkaido. Asano, M., et al, [1993,eng] 48-1200
Joint ventures and the Soviet Arctic. Butler, W.F., [1990,eng] 48-2609
Oil and hazardous substance contingency plan for Alaska. Lautenberger, C., et al, [1993,eng] 48-3717
Regulations on studded tire usage and winter road administration in Japan. Kanzaki, H., et al, [1993,eng] 48-1187
Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] 48-789
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893
Tenth Five-Year Plan for road maintenance. Ando, A., [1988,jpn] 48-575
Level
See [also]: Altitude; Sea level; Water level
Leveling
Trigonometric leveling 1992 on Ronne Ice Shelf. Karsten, A., et al, [1992,eng] 48-245
Lichens
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Analysis of Upper Kolyma Highland lichen flora. Kotlov, IU.V., [1993,rus] 48-4224
Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-24..
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] 48-4970
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
Lecanora geophila and *Arctpeltis thuleana* (Lichenes) from the Siberian Arctic. Zhurbenko, M.P., et al, [1993,rus] 48-4227
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003
Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67
Lichens collected at the bird colony in the northwestern part of Bolshevik Island (Severnaya Zemlya). Kotlov, IU.V., [1993,rus] 48-5273
Lichens of the central part of the Iskaten Mountain ridge in western Chukotskiy Peninsula. Makarova, I.I., et al, [1992,rus] 48-1623
Lichens of the genera *Cladina* and *Cladonia* from southern Altai (eastern Kazakhstan). Myrzakulova, Z.S., [1993,rus] 48-5279
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] 48-2480
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Role of lichens in vegetation cover formation in the Upper Kolyma highlands. Kotlov, IU.V., [1993,rus] 48-5282
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Two new lichen species found in Taymyr Peninsula. Zhurbenko, M.P., et al, [1993,eng] 48-1634
Lidar
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] 48-4907
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] 48-4694
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463
Stratospheric aerosol increase after Mt. Pinatubo eruption. Iwasaka, Y., et al, [1993,eng] 48-1868
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Light effects
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] 48-1252
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] 48-4812
Photoprotective function for secondary carotenoids of snow algae. Bidigare, R.R., et al, [1993,eng] 48-725
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
Light scattering
3-dimensional scattering functions of ice crystals and depolarization effects. Rockwitz, K.D., [1989,eng] 48-1473
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] 48-992
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] 48-2819
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] 48-5487
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] 48-1336
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] 48-1475
Light scattering by finite hexagonal crystals arbitrarily oriented in space. Brogniez, G., [1989,eng] 48-1477
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Modelling cirrus optical properties. Hess, M., et al, [1993,eng] 48-2990
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] 48-1213
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Scattering of electromagnetic radiation by atmospheric ice crystals. Macke, A., [1991,ger] 48-4865
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] 48-2992
Single scattering by non-spherical ice particles. Macke, A., [1993,eng] 48-2991
Small-angle light scattering by crystalline particles within clouds. Shifrin, K.S., et al, [1989,eng] 48-1474
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608
Light transmission
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] 48-2819
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
Light (visible radiation)
Spectral extinction coefficient of sea ice. Kishigami, H., et al, [1993,jpn] 48-1078
Lighting
See [also]: Illuminating
Lightning
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Radar detection of lightning discharges in thundercloud pt.2. Michimoto, K., [1993,eng] 48-209
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Lightweight concretes
Crushed lightweight aggregate in concrete. Punkki, J., [1992,eng] 48-2067
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Experiment on durability of lightweight concrete exposed in the Okhotsk Sea. Sakurai, H., et al, [1993,jpn] 48-1043
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Liming
Frost susceptibility of powdered calcium carbonate. Chen, X.B., et al, [1993,eng] 48-5198
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, L., [1993,eng] 48-3613
Limnology
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] 48-2863
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117

Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Geochemistry of methane in Lake Fryxell, an amictic, permanently ice-covered antarctic lake. Smith, R.L., et al, [1993,eng] 48-1664
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Limnological research in Terra Nova Bay area. Guilizzoni, P., et al, [1992,eng] 48-4767
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] 48-3038
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Phytoplankton population dynamics in Lake Fryxell. Spaulding, S.A., et al, [1994,eng] 48-4813
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] 48-942
Pump freeze corer for recent sediments. Renberg, I., et al, [1993,eng] 48-1527
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
See [also]: Lakes

Linings
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Destruction and rehabilitation of shaft lining in frozen shaft. Wang, C.S., et al, [1993,chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft. Wang, C.S., et al, [1993,eng] 48-3243
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] 48-5233
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] 48-510
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Insulated tunnel liner and rehabilitation system. Weholt, R.L., [1990,eng] 48-2165
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] 48-2598
Prevention of frost damage to canals. Chen, X.B., [1993,eng] 48-5189

Liquefied gases
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Condensed gases under winter conditions: a study for the rescue services. Winter, S., et al, [1992,swe] 48-4719
Direct conversion of natural gas to higher hydrocarbon liquids. Sackinger, W.M., et al, [1994,eng] 48-3984
Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] 48-5391
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] 48-5393
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] 48-5394
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] 48-1508
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] 48-605
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] 48-3541

Liquid cooling
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] 48-3932
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998

Liquid phases
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] 48-3011
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2828
Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] 48-3939
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592

Liquid solid interfaces
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] 48-3318
Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] 48-4063
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] 48-4814
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Interaction of particles and ice-water interfaces during bulk freezing. Lipp, G., et al, [1992,eng] 48-3079
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Method and apparatus for acoustic plate mode liquid-solid phase transition detection. Blair, D.S., et al, [1990,eng] 48-4756
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Thermal design for annular shaped phase-change storage systems. Prasad, A., et al, [1993,eng] 48-893
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

Liquids
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
See [also]: Frozen liquids

Lithology
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan. Talipov, M.A., et al, [1990,rus] 48-1237
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] 48-3130
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Characteristics of cryogenic weathering of hard rocks, such as dolerites. Gurevich, V.M., [1992,rus] 48-4784
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] 48-3804
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] 48-2541
Fluvial lithomorphogenesis in the Protva River valley. Antonov, S.I., et al, [1993,rus] 48-3742
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Strel'kaia, I.D., [1994,eng] 48-3402
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-419
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure. Sudakova, N.G., et al, [1992,rus] 48-1396
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] 48-4866
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] 48-300
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Sediment descriptions, Bransfield Strait 1986-1987. Bryan, J.R., ed, et al, [1993,eng] 48-3816
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] 48-940
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12

Lithuania
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857

Littoral zone
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] 48-932
Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands. Perestenko, L.P., [1993,rus] 48-5274
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475

Loading
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] 48-2351
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5177
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
See [also]: Unloading

Loads (forces)
Evaluation problems of Russian gas pipeline constructions' resource. Kharionovskiĭ, V.V., [1994,eng] 48-3025
Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] 48-460
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Glacigenic sediments related to the glacial history of Prydz Bay. Solheim, A., et al, [1991,eng] 48-3631
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] 48-2443
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829

Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] 48-3923
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] 48-1167
See [also]: Dynamic loads; Ice loads; Ice pressure; Pile load tests; Snow loads; Soil pressure; Static loads; Water pressure; Wind pressure

Loams
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] 48-2443
Redoximorphic features in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2296
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140

Locks (waterways)
Method and equipment for maintaining ice-free locks. Pontynen, E., [1993,eng] 48-1656
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] 48-2086

Loess
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] 48-2015
Loess and its climate records in Kunlun Shan region since the late Pleistocene. Zhao, X.F., et al, [1993,eng] 48-504
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] 48-496
Permafrost in the loess plateau of China and its relationship to the environment. Li, Z.F., [1993,eng] 48-884
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] 48-5224
Soil formation and cryogenesis on the Russian plain during the last 125,000 years. Velichko, A.A., et al, [1993,eng] 48-2285
Soil formation and environmental changes in China's loess. Ohmori, H., et al, [1990,jpn] 48-3425
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1992,chi] 48-1415
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1993,eng] 48-5250

Logging
See [also]: Electrical logging; Recording; Well logging

Logging (recording)
See [also]: Recording

Logistics
Arctic cargo transportation economic evaluation. Backlund, A., et al, [1993,eng] 48-101
Building the DEW line. Walker, C.W., [1957,eng] 48-289
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Division into zones of the Northern Sea Route by difficulty and safety of navigation. Buzuev, A.IA., et al, [1993,eng] 48-124
Final report of Operation Deep Freeze '91 (1990-91). U.S. Naval Support Force Antarctica, [1991,eng] 48-1531
GRIP deep drilling camp. Gundestrup, N.S., et al, [1994,eng] 48-5362
Guliya Ice Cap, China: retrieval and return of a 308-m ice core from 6200 m altitude. Koci, B., et al, [1994,eng] 48-5363
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
Logistics options for the Cape Roberts Project. Macfarlane, M., [1992,eng] 48-2322
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] 48-1779
Operation Deep Freeze 92/93 end of season report. U.S. Naval Support Force Antarctica, [1993,eng] 48-1663
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Proceedings. Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992. [1993,eng] 48-1784
Rapid deployment of camp facilities utilizing point-supported structures. Mimken, V.B., et al, [1994,eng] 48-5364
Safety in the operation of cryogenic systems at the South Pole. Francis, A., [1993,eng] 48-1358

Long range forecasting
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] 48-2033
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years. Putilina, N.M., et al, [1992,rus] 48-4470
Dangers of multiyear averaging in analyses of long-term climate trends. Parkinson, C.L., [1989,eng] 48-2362
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Global change policy for Alaska. Cole, H., [1992,eng] 48-2042
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] 48-2054
Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs. Kharchenko, P.IU., et al, [1992,rus] 48-1949
Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] 48-1952
Long range forecasting of spring inflow into the Cheboksary reservoir. Chemerenko, E.P., [1992,rus] 48-1947
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Method of long range forecasting of freezeup on rivers in Kazakhstan. Shmarova, I.N., [1992,rus] 48-1953
Methods of runoff computations for cold regions in modern conditions. Lobanov, V.A., [1994,eng] 48-3361
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] 48-3233
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] 48-2347
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935

Low frequencies
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] 48-2866
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143

Low temperature research
Activities within the Aurora Programme—Field season 1991/92. Kristensen, M., [1992,eng] 48-252
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4362
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-3679
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] 48-2236
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270
German report to SCAR No.15, 1993. Germany. Scientific Committee on Antarctic Research and International Arctic Science Committee, [1993,eng] 48-4243
High latitudes: a history of Swedish polar travels and research. Liljequist, G.H., [1993,eng] 48-1811
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] 48-2536
How the Cold Regions database covers polar oceanography. Hibben, S.G., [1994,eng] 48-5093
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] 48-5391
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Manual on the use of thermocouples in temperature measurement. Fourth edition.[1993,eng] 48-3080
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Pellet injection technology. Combs, S.K., [1993,eng] 48-1762
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-4759
Reports of planetary geology and geophysics program, 1990.[1991,eng] 48-3696
Solar energy potentialities and prospects in Antarctica. Sheinstein, A.S., et al, [1993,rus] 48-3568
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
U.S. antarctic research report to SCAR No.33, 1991. National Research Council. Polar Research Board, [1994,eng] 48-4242
United States Antarctic Program. Science Program Plan 1991-92. U.S. National Science Foundation, [1991,eng] 48-3822
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646

Low temperature tests
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Breaking capacity of SF6 circuit-breakers at low temperatures. Pons, A., et al, [1993,eng] 48-1828
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] 48-2559
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] 48-3839
Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] 48-3981
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] 48-5024
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] 48-5056
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
Dynamic tensile strength of glass fiber reinforced pultruded composites. Dutta, P.K., et al, [1994,eng] 48-3267
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites. Madhukar, M.S., et al, [1994,eng] 48-5150
Failure mechanics criteria for field testing large-sized structures. Guliaev, V.P., [1990,rus] 48-50
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] 48-3618
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
Flexural fatigue and fracture of unidirectional graphite/epoxy composites at low temperatures. Dutta, P.K., [1993,eng] 48-2062
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
Fracture behavior of composites at room and cryogenic temperature. Lau, O.H., [1993,eng] 48-3539
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384

High temperature tests and methods of describing the changes in the characteristics of low-alloy steels. Makarova, I.P., et al, [1990,rus] **48-56**
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] **48-2536**
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] **48-2349**
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] **48-2751**
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] **48-2451**
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] **48-2048**
Influence of low temperature on energy absorption in laminated composites. Dutta, P.K., et al, [1993,eng] **48-2061**
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] **48-1231**
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskiĭ, I.N., ed, [1991,rus] **48-1910**
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] **48-2143**
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] **48-5025**
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] **48-4167**
Method for low temperature field tests of pipes and pressure vessels. Sosin, T.S., et al, [1990,rus] **48-51**
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] **48-2080**
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] **48-3000**
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] **48-2450**
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] **48-2051**
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] **48-2052**
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] **48-2753**
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] **48-5393**
Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] **48-1897**
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] **48-5390**
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] **48-5394**
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] **48-2092**
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] **48-5396**
Responses to temperature of an Arctic psychrophylic ice diatom. Smith, R.E.H., et al, [1994,eng] **48-3791**
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] **48-3939**
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] **48-3932**
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] **48-2591**
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] **48-2998**
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] **48-5395**
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] **48-2147**
Tests of metal materials and structures at low climatic temperatures; collected scientific papers. Malinin, N.I., ed, [1990,rus] **48-49**
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] **48-4979**

Lubricants

Durable surface coatings for rubber articles e.g. wiper blades and seal packings. Hirokawa, Y., et al, [1993,eng] **48-5523**
Formulating automatic transmission fluids with improved low temperature fluidity. Watts, R.F., et al, [1991,eng] **48-3931**
Lube basestock manufacturing technology and engine oil pumpability. Rossi, A., [1994,eng] **48-3100**
Lubricant effects on low-temperature diesel engine cold starting. Buck, W.H., et al, [1994,eng] **48-3099**
Military vehicles for cold climates. Falk, A., [1994,eng] **48-3946**
Pre-oiling system during cold-start of SI engine. Parpola, M., et al, [1994,eng] **48-3087**
Radial shaft sealing systems in arctic conditions. Välttilä, J., [1994,eng] **48-3983**
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] **48-3932**

Luminescence

O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] **48-2051**
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] **48-2052**
Radioluminescent lights score high in VFR night air taxi tests. Jensen, G.A., et al, [1987,eng] **48-4134**
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] **48-3796**
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] **48-3129**

Machinery
Auger for self-propelled snow removing machine. Ogano, T., et al, [1990,eng] **48-2196**
Convertible grass cutting and snow blowing machine having a cylindrical rotor. Fontaine, A.G., [1991,eng] **48-2235**
Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] **48-651**
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] **48-4967**
High efficiency snowthrower. Brown, R.R., et al, [1990,eng] **48-2193**
Link rod for aircraft deicer vehicle. Vestergaard, G., [1993,eng] **48-4960**
Manually operated snow plow or other utility device. Asay, Z.L., [1990,eng] **48-2185**
Mining machines serviceability under cold climate conditions. Larionov, V.P., et al, [1994,eng] **48-3985**
Multipurpose snow-handling machine. Dronov, V.G., [1993,rus] **48-745**
New concept in trail grooming—"the KRC Groomer". Alger, R.C., [1994,eng] **48-3371**
Operability: the first step to mobility. Diemand, D., [1993,eng] **48-1166**
Radial shaft sealing systems in arctic conditions. Välttilä, J., [1994,eng] **48-3983**
Radial shaft seals in arctic conditions. Välttilä, J., [1994,eng] **48-3101**
Single stage snowthrower. Thorud, R.A., et al, [1991,eng] **48-2225**
Snow removal apparatus. Cooley, J., [1992,eng] **48-2238**
Snow scoop helps clear rear of plow.[1994,eng] **48-5301**
Snowthrower with resilient impeller. Thorud, R.A., et al, [1990,eng] **48-2183**
Using the working elements of earth moving machines under the conditions in Siberia and the Far North. Suslov, A.A., [1993,rus] **48-746**
Wear element for a scraping operation. Bain, R.L., et al, [1993,eng] **48-1283**
Wiper motor driving device for automotive vehicles. Nishikawa, I., [1990,eng] **48-4958**

Macquarie Island
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] **48-940**

Magma
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] **48-1106**
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] **48-1363**

Magnetic anomalies
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] **48-3760**
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] **48-2619**

Magnetic properties
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] **48-5013**
Self-contained apparatus for de-icing aircraft surfaces using magnetic pulse energy. Zieve, P.B., [1990,eng] **48-2191**
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] **48-3756**
Technical assessment of maglev system concepts. Lever, J.H., [1993,eng] **48-295**

Magnetic resonance
See [also]: Nuclear magnetic resonance

Magnetic surveys
Gradientometric magnetic survey of arctic ice. Aleksandrov, E.B., et al, [1993,eng] **48-3248**
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] **48-3760**

Magnetism
See [also]: Geomagnetism

Maintenance
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] **48-1895**
Effect of aqueous solutions of anti-icing additive on Thiokol s Jants. Likhterova, N.M., et al, [1993,eng] **48-982**
See [also]: Road maintenance; Winter maintenance

Manuals
Arctic and subarctic construction foundations for structures.[1983,eng] **48-762**
Construction calculation for freeze and thaw depths in soils.[1988,eng] **48-763**
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] **48-2917**
Glacier mass-balance measurements: a manual for field and office work. Østrem, G., et al, [1991,eng] **48-312**
Improving the information content of ice manuals. Kazanskii, M.M., et al, [1992,rus] **48-2743**
Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] **48-1869**
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska. Haynes, F.D., et al, [1994,eng] **48-5409**
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] **48-4026**

Manufacturing
Design of icebreaker bows. Herkens, H., [1993,eng] **48-104**
Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual. Timofeev, A.I., et al, [1991,rus] **48-1266**
Freezing processes used in the food industry. George, R.M., [1993,eng] **48-228**
Optimizing the freezing point of aviation turbine kerosene. Ecker, A.J., [1993,ger] **48-1753**
Production of pour-point depressants for diesel and furnace fuels. Chesnovitskii, K.G., et al, [1993,eng] **48-981**
Tires with polymer composition and silica filler. Rauline, R., [1993,eng] **48-4367**

Mapping
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] **48-3790**
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] **48-239**
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] **48-3297**
Chlorine threat to stratospheric ozone. Waters, J.W., [1993,eng] **48-2666**
Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] **48-2540**
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] **48-4152**
Glacier of Sweden. Schytt, V., [1993,eng] **48-4031**
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] **48-1280**
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] **48-3629**
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] **48-3195**
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] **48-4384**
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] **48-455**
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] **48-396**
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] **48-609**
Orthophotomaps of glacierized areas. Brunner, K., [1977,ger] **48-3311**
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] **48-3301**
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] **48-1915**
Record low total ozone during northern winters of 1992 and 1993. Bojkov, R.D., et al, [1993,eng] **48-301**
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] **48-4130**
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] **48-2475**
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] **48-527**
Snow depth mapping in Mongolia. Morton, D.C., et al, [1993,eng] **48-2967**
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] **48-1602**
Thematic maps of Filchner-Ronne Ice Shelf. Vaughan, D.G., et al, [1991,eng] **48-3**
Use of visible satellite imagery over ice sheets. Vaughan, D.G., et al, [1992,eng] **48-917**
See [also]: Infrared mapping; Sensor mapping; Soil mapping; Stereomapping

Maps
Atlas of the energy balance of the northern polar area. Girdiuk, G.V., et al, [1992,rus] **48-1479**
Circumarctic map of permafrost and ground ice conditions. Heginbottom, J.A., et al, [1993,eng] **48-5213**
First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] **48-2017**
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] **48-3766**
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] **48-2550**
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] **48-396**
Satellite Image Atlas of Glaciers. Ferrigno, J.G., et al, [1978,eng] **48-2985**
World Atlas of Snow and Ice Resources compiled in the Soviet Union. Kotliakov, V.M., et al, [1978,eng] **48-2984**
See [also]: Charts; Geological maps; Meteorological charts; Topographic maps

Marginal ice zone
See [also]: Ice edge

Marine atmospheres
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] **48-1140**
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] **48-197**
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] **48-5004**
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] **48-4132**
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] **48-4617**
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] **48-4599**
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] **48-4597**

Marine biology
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] **48-4540**
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] **48-5002**
Annual dynamics of nutrient transition through the western boundary of the Barents Sea. Volkovskaia, L.E., et al, [1991,rus] **48-2525**
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] **48-726**
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] **48-4659**
Arctic marine ecosystems. Alexander, V., [1992,eng] **48-1261**
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] **48-5636**
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] **48-5026**
Bacterial destruction of proteins and protein composition of saprophytic bacteria in the Barents Sea belonging to different ecological groups. Tikhonov, P.S., [1991,rus] **48-2529**
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] **48-3430**
Beaufort Sea coastal fish studies: overview and bibliography. Harris, R.K., [1993,eng] **48-40**
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] **48-4212**
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton. Neale, P.J., et al, [1992,eng] **48-5097**
Distribution of antarctic diatoms in the Weddell Sea during austral winter. Moisan, T.A., et al, [1993,eng] **48-3735**
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna*. Karentz, D., et al, [1992,eng] **48-5096**
Effect of algaeic methanes on atmospheric ozone. Itoh, N., et al, [1994,eng] **48-4157**
Evidence for marine molluscan fauna beneath ice shelves in the Lazarev and Weddell seas. Hain, S., et al, [1994,eng] **48-3039**
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al, [1994,eng] **48-3927**
Faunistic degradation of macrobenthos at freezing time. Kuwabara, R., [1993,eng] **48-1028**
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] **48-2049**
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] **48-1781**
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] **48-5367**
Heterotrophic bacteria in the coastal zone of the Barents Sea. Pesegov, V.G., [1991,rus] **48-2528**
Ice algae in the subarctic ocean: review. Taguchi, S., [1990,eng] **48-4673**
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] **48-85**
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] **48-3201**
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] **48-717**
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] **48-5635**
Life cycle of a calanoid copepod in the Weddell Sea. Kurbjeweit, F., et al, [1993,eng] **48-594**
Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] **48-1833**
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] **48-5642**
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90. Prézelin, B.B., et al, [1994,eng] **48-4387**
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition. Bidigare, R.R., et al, [1992,eng] **48-5095**
Membrane fatty acid analysis of antarctic bacteria. Rotert, K.R., et al, [1993,eng] **48-3823**
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] **48-4734**
Microbial network of the marginal ice zone in the Weddell Sea. Lancelot, C., et al, [1993,eng] **48-2136**
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] **48-3779**
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] **48-1815**
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] **48-5373**
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] **48-4277**
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] **48-2148**
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] **48-5152**
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] **48-1083**
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands). Klöser, H., et al, [1994,eng] **48-3042**
On the study of bottom fauna in Anabarskiy Gulf of the Laptev Sea. Gukov, A.IU., [1992,eng] **48-2604**
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] **48-1071**
Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman. Il'in, G.V., [1991,rus] **48-2526**

Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Phytoplankton in the Antarctic Marginal Ice Zone. Kang, S.H., [1992,eng] 48-1024
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001
Primary production in sea ice covered waters. Alexander, V., [1990,eng] 48-4665
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Production of microphytobenthos in the coastal area of the Barents Sea. Kuznetsov, L.L., [1991,rus] 48-2531
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea. Baitaz, V.A., et al, [1991,rus] 48-527
Quaternary paleoceanography of the Arctic Ocean. Crenin, T.M., et al, [1994,eng] 48-5640
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] 48-3926
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Sea ice and open-water plankton carbon isotopic composition. Dunbar, R.B., et al, [1992,eng] 48-3767
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] 48-3319
Seabirds and fur seals near the Antarctic Peninsula in winter 1986. Whitehouse, M.J., et al, [1994,eng] 48-5153
Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea. Fomin, O.K., [1991,rus] 48-2533
Seasonal succession of microphytoplankton in the coastal zone of East Murman. Druzhkov, N.V., et al, [1991,rus] 48-2530
Seasonal succession of zooplankton in the coastal zone of Eastern Murman. Druzhkov, N.V., et al, [1991,rus] 48-2532
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Summary of WinCruise IV to the Antarctic Peninsula during September 1991. Quetin, L.B., et al, [1992,eng] 48-5098
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Thraustochytrid protists in antarctic fast ice?. Riemann, F., et al, [1993,eng] 48-47
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] 48-4388
Ultraviolet radiation in Antarctica: measurements and biological effects. Weiler, C.S., ed, et al, [1994,eng] 48-4379
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716
Will the ozone hole over Antarctica affect the productivity of the southern ocean. El-Sayed, S.Z., [1992,eng] 48-3246

Marine deposits
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] 48-3575
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] 48-4985
Lambert Glacier-Amery Ice Shelf system and the origin of Prydz Bay sediments. Hambrey, M.J., [1991,eng] 48-3629
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] 48-4945
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418
Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] 48-1506
Pleistocene deposits of the White Sea and its coast. Nemtsova, G.M., et al, [1993,rus] 48-3744
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] 48-1923
Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] 48-4991
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] 48-3709
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
Sediment descriptions, Bransfield Strait 1986-1987. Bryan, J.R., ed, et al, [1993,eng] 48-3816
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
See [also]: Sediments

Marine environments
Arctic and Marine Oilspill Program—AMOP. Meikle, K.M., [1989,eng] 48-4138
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Frost damage to coastal concrete structures in Japan. Ayuta, K et al, [1986,eng] 48-5313
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922

Marine geology
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations. Cooper, A.K., et al, [1993,eng] 48-3291
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] 48-2643
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] 48-3804
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Earth's glacial record. Deynoux, M., ed, [1994,eng] 48-5037
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] 48-2457
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] 48-4188
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] 48-2883
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] 48-4178
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Scale of the last glaciation in the arctic basin. Pavlidis, IU.A., [1992,eng] 48-2605
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] 48-5040
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935

Marine meteorology
1992 Arctic Leads Experiment: an overview of the meteorology. Wolfe, D.E., et al, [1993,eng] 48-2126
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Archived time-series of Atlantic Ocean meteorological variables and surface fluxes. Bunker, A.F., et al, [1979,eng] 48-3699
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] 48-3674

Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] 48-2146
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] 48-4132
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] 48-4725
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] 48-209
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] 48-3461
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] 48-2846
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] 48-1603
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072

Marine transportation
Arctic cargo transportation economic evaluation. Backlund, A., et al, [1993,eng] 48-101
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-2097
Division into zones of the Northern Sea Route by difficulty and safety of navigation. Buzuev, A.IA., et al, [1993,eng] 48-124
Fifteen years of arctic shipping—the lessons learned. Luce, M.P., et al, [1994,eng] 48-4309
Finland breaks the ice. Brigham, L.W., [1987,eng] 48-2338
Finnish firms in arctic shipping joint venture.[1993,eng] 48-3228
Ice-navigating ships supply Chukotka. Novosel'tsev, E., et al, [1992,rus] 48-5400
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] 48-4289
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
Joint ventures and the Soviet Arctic. Butler, W.E., [1990,eng] 48-2609
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Multipurpose underwater transport ship outfitted for the Arctic. Dronov, B.F., et al, [1992,rus] 48-748
New generation Arktika class nuclear icebreaker feasibility study. Tsoi, L.G., [1994,eng] 48-43[illegible]
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] 48-1779
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Proceedings. Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992, [1993,eng] 48-1784
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] 48-605
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskii, A.V., et al, [1989,rus] 48-310
Transit capacity of the Northern Sea Route. Arikainen, A., [1992,eng] 48-728
Via the Northern Sea Route all year round. Burkov, G.D., [1986,rus] 48-1091

Marion Island
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Trends in total ozone over southern African stations between 1979 and 1991. Kalicharran, S., et al, [1993,eng] 48-4390

Marking
See [also]: Isotopic labeling

Mars (planet)
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] 48-1100
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] 48-5041
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] 48-3543
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] 48-988
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Quasi-periodic climate change on Mars. Kieffer, H.H., et al, [1992,eng] 48-5045
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991

Marshes
See [also]: Swamps

Masonry
Concrete masonry handbook for architects, engineers, builders. Panarese, W.C., et al, [1991,eng] 48-2668
Construction in polar regions using local raw materials. Cherskii, I.N., et al, [1994,eng] 48-3948
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225

Mass balance
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Contribution of Antarctic Peninsula ice to sea level rise. Morris, E.M., ed, [1992,eng] 48-779
Early Pliocene climate and ice-sheet modeling. Prentice, M.L., et al, [1992,eng] 48-2617
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Estimating ice-sheet response to climate change. Hindmarsh, R.C.A., [1992,eng] 48-784
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Ice shelves and icebergs—an overview. Oerlemans, J., [1989,eng] 48-1661
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions. Huybrechts, P., [1993,eng] 48-2140
Patterns of snow accumulation and O-18 in Queen Maud Land. Isaksson, E., [1991,eng] 48-1112
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Spatial temperature and accumulation rate variations in the Antarctic Peninsula. Peel, D.A., [1992,eng] 48-781
Surface mass balance of the Antarctic Peninsula ice sheet. Froich, R.M., [1992,eng] 48-780
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K [1993,ger] 48-1113
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
See [also]: Glacier mass balance

Mass exchange
See [also]: Mass transfer

Mass flow
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] 48-3232
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] 48-693
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] 48-3233
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions. Huybrechts, P., [1993,eng] 48-2140
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] 48-2085

Mass movements (geology)
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849
Landslide hazards in Vermont. Baskerville, C.A., et al, [1993,eng] 48-3283
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] 48-2020
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] 48-2085
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] 48-5202
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] 48-4487
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972

Mass transfer
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Dynamic mass exchange in Tuyuksu Glacier. Makarevich, K.G., et al, [1992,rus] 48-4457
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] 48-4048
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] 48-492
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] 48-477
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] 48-2449
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] 48-4101
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344
See [also]: Permafrost mass transfer

Materials
Safety in the operation of cryogenic systems at the South Pole. Francis, A., [1993,eng] 48-1358
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984
See [also]: Construction materials; Porous materials

Mathematical analysis
See [also]: Analysis (mathematics)

Mathematical models
3-dimensional scattering functions of ice crystals and depolarization effects. Rockwitz, K.D., [1989,eng] 48-1473
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] 48-2004
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] 48-5497
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] 48-3673
Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] 48-487
Advancements in the LEWICE Ice Accretion Model. Wright, W.B., [1993,eng] 48-4886
Aerodynamic torque in snow accretion on transmission lines. Poots, G., et al, [1993,eng] 48-819
Air gaps at the bottom of a melting two-layered snow cover. Nohguchi, Y., [1993,jpn] 48-3170
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] 48-2862
Aircraft ground deicing and anti-icing fluids. Louchez, P.R., et al, [1994,eng] 48-3111

Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] **48-3944**
Analogic conditions of simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] **48-1443**
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] **48-2835**
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] **48-3250**
Anisotropic model for gained ice ductility. Zhan, C., et al, [1994,eng] **48-3830**
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] **48-4728**
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] **48-4699**
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] **48-137**
Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] **48-285**
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] **48-2326**
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] **48-399**
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] **48-4729**
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] **48-4264**
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] **48-1100**
Arctic and subarctic construction foundations for structures.[1983,eng] **48-762**
Arctic and subarctic construction: utilities.[1987,eng] **48-1141**
Arctic response to CO_2-induced climatic warming. Cattle, H., et al. [1993,eng] **48-4205**
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] **48-2811**
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] **48-4175**
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] **48-2413**
Assessment of air pollution from the Noril'sk Mining and Metallurgy Plant. Belov, P.N., [1993,rus] **48-5288**
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] **48-5612**
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] **48-2839**
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] **48-4704**
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] **48-4056**
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] **48-3431**
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] **48-1375**
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration. Cain, G.E., et al, [1994,eng] **48-3108**
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] **48-3213**
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] **48-3013**
Buckling of geodesic domes under snow loads. Part 8. Sugino, H., et al, [1993,jpn] **48-1999**
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] **48-1714**
Calculation of snowmelt. Shutov, V.A., [1993,eng] **48-5296**
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] **48-391**
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] **48-926**
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] **48-1380**
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] **48-5602**
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] **48-4197**
Change of pore ice and ice phase stress during the creep process of frozen soil. Ma, W., et al, [1993,chi] **48-1440**
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] **48-5618**
Characteristic of shear creep of frozen fine sand. Mi, H.Z., et al, [1993,chi] **48-4579**
Characteristics of heat exchanger for melting of piled snow. Aoki, K., et al, [1993,eng] **48-876**
Chlorine activation during polar night. Müller, R., et al, [1993,eng] **48-3639**
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] **48-351**
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] **48-2513**
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] **48-5319**
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] **48-4475**
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] **48-3594**
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] **48-2508**
Comparison of selected models for estimating cable icing. McComber, P., et al, [1993,eng] **48-816**
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] **48-1347**
Comparison of the predictive ability of ice cream freezing point depression equations. Jaskulka, F.J., et al, [1993,eng] **48-3839**
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] **48-3011**
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] **48-142**
Computational aerodynamics with icing effects. Mouch, T.N., [1993,eng] **48-1961**
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] **48-803**
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave. Fowler, A.C., et al, [1993,eng] **48-5205**
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] **48-4414**
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] **48-2733**
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] **48-4322**
Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] **48-1399**
Construction calculation for freeze and thaw depths in soils.[1988,eng] **48-763**
Construction of distribution functions of the dynamic parameters of avalanches. Bozhinskii, A.N., [1992,rus] **48-1397**
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] **48-5029**
Convective cloud model predictive capabilities. Ćurić, M., et al, [1993,eng] **48-1743**
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] **48-3318**
Crack nucleation in polycrystalline columnar ice due to anisotropic grains. Picu, R.C., et al, [1994,eng] **48-5585**
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] **48-3973**
Creep and creep strength of frozen soil. Ma, W., et al, [1993,chi] **48-1441**
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] **48-4332**
Creep deflection of ice plate under variable loading. Wu, Z., et al, [1994,eng] **48-3016**
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] **48-1461**
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] **48-461**
Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia. Leibman, M.O., [1994,eng] **48-3408**
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] **48-4334**
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] **48-5165**
Decreasing energy expenditures for warming engines before ignition. Reznik, L., et al, [1994,eng] **48-3085**
Dependence of coefficients of resistance to movement on avalanche parameters. Blagoveshchenskii, V.P., [1992,rus] **48-4455**
Dependence of segregation potential on the thermal and hydraulic conditions predicted by model M_1. Nakano, Y., [1994,eng] **48-5151**
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] **48-1683**
Deriving snow liquid water content using C-band polarimetric SAR. Shi, J.C., et al, [1993,eng] **48-1705**
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] **48-873**
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] **48-1713**
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] **48-3847**
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] **48-4064**
Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] **48-4063**
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] **48-3251**
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] **48-1672**
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] **48-3751**
Disaggregation models of seasonal streamflow forecasts. Grygier, J., et al, [1993,eng] **48-2955**
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] **48-5111**
Discrete element modelling of forces exerted on a boom for ice management. Løset, S., [1993,eng] **48-4354**
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] **48-979**
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] **48-1689**
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] **48-3808**
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] **48-3249**
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures. Matskevich, D.G., [1994,eng] **48-3028**
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] **48-3809**
Dynamic model of ice-structure interaction. Bekker, A.T., et al, [1993,eng] **48-1054**
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] **48-3394**
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] **48-2630**
Dynamics of snow avalanches and mathematical models. Nohguchi, Y., [1992,jpn] **48-3166**
Earthquake response of offshore structures in sea ice (part 4). Adachi, H., et al, [1990,jpn] **48-4669**
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] **48-2108**
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] **48-3023**
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] **48-5109**
Effect of density variations in models of rime ice accretion on overhead line conductors. Skelton, L., et al, [1993,eng] **48-820**
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] **48-1676**
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] **48-864**
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] **48-832**
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] **48-2351**
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] **48-878**
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] **48-2060**
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] **48-2597**
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] **48-4349**
Effects of a porous medium in a flow passage with miter bend. Ichimiya, K., et al, [1993,eng] **48-869**
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] **48-2477**
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] **48-441**
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] **48-4814**
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] **48-3086**
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] **48-1371**
Elastic-plastic analysis of narrow truncated floating ice wedge. Choi, S.K., et al, [1993,eng] **48-4333**
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] **48-1400**
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] **48-3666**
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] **48-4717**
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] **48-3520**
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] **48-3230**
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] **48-3440**
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] **48-821**
Estimating the effectiveness of foam screens for heat melioration in the cryolithozone. Zviagin, V.V., et al, [1993,eng] **48-2611**
Estimation of burial depths for pipelines in the Beaufort Sea. Chouinard, L.E., [1993,eng] **48-153**
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] **48-3141**
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] **48-5033**
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] **48-4296**
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] **48-4919**
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] **48-5028**
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] **48-5377**
Evaluation of evaporation models for alpine tundra. British Columbia, Canada. Saunders, I.R., et al, [1990,eng] **48-1571**
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] **48-3403**
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978. Jordan Marsh Company. Central Service Facility, [1978,eng] **48-1871**
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] **48-2573**

Experimental and numerical analysis of floating ice beam impact forces against a sloped structure. Coutermarsh, B.A., [1994,eng] 48-5148
Experimental car and trailer axle cornering characteristics at low friction conditions. Vågstedt, N.G., [1994,eng] 48-3107
Experimental studies on ice segregation and the modes of frost heaving. Chen, R.J., et al, [1993,eng] 48-5195
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] 48-5561
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688
Failure of fresh-water granular ice under multiaxial compressive loading. Weiss, J., et al, [1994,eng] 48-5588
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Finite element analysis of ice sheet indentation. Horrigmoe, G., et al, [1993,eng] 48-167
Finite element modelling of damage processes in ice-structure interaction. Xiao, J., [1991,eng] 48-802
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] 48-3565
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Flow in ice covered channels. Schmidt, N.P., [1992,eng] 48-2654
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Forecasting of direct-action avalanches in terms of snow accumulation rates. Endo, Y., [1993,jpn] 48-3175
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water. Gotovtsev, S.P., et al, [1992,rus] 48-4783
Forecasting thermokarst with a computer. Fel'dman, G.M., et al, [1992,rus] 48-4796
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Formation of floods caused by outbursts from snow dams. Keremkulov, V.A., [1992,rus] 48-4453
Fracture mechanics in modeling of icebreaking capability of ships. Gol'dstein, R.V., et al, [1993,eng] 48-2683
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] 48-5546
Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] 48-1452
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] 48-2155
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] 48-4480
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Frost heave study in Japan. Ishizaki, T., [1993,eng] 48-1427
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] 48-4500
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] 48-5207
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] 48-2932
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] 48-4199
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] 48-2783
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins. Lawson, D.E., [1993,eng] 48-2538
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis. Nakano, Y., et al, [1994,eng] 48-3793
Growth rates of icicles. Maeno, N., et al, [1994,eng] 48-5168
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Heat recovery ventilator operating under frost conditions. Mercadier, Y., et al, [1993,eng] 48-870
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskiĭ, M., et al, [1994,eng] 48-5370
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Helicopter rotor performance in icing conditions. Britton, R.K., [1992,eng] 48-4857
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] 48-4338
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Hydrograph forecasts for a mountain river in a stochastic form. Mukhin, V.M., [1992,rus] 48-1948
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] 48-2054
Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice accretion and performance degradation calculations with LEWICE/NS. Potapczuk, M.G., et al, [1993,eng] 48-4884
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] 48-4341
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Ice accretion on trash racks in supercooled flows. Part I: icing. Horjen, I., [1994,eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] 48-5597
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice certification of the Dornier 328 regional airliner. Welte, D., et al, [1991,eng] 48-3693
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice cover thickness and air temperature. Ha, H.W., et al, [1994,eng] 48-5599
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] 48-1037
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] 48-827
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] 48-5559
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] 48-4821
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Ice wedge dynamics and local crushing. McKenna, R.F., et al, [1993,eng] 48-94
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Impact loads of drifting ice floes on artificial islands. Nikitin, V.A., et al, [1993,eng] 48-147
Impact of different backgrounds on thermal infrared IDS performance. Lacombe, J., [1993,eng] 48-1094
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] 48-5369
Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] 48-2940
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Incompressible solver and ice accretion on an airfoil. Ok, H.N., [1994,eng] 48-3554
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Influence of damage on the creep behavior of ice. Kenny, S.P., [1992,eng] 48-5378
Influence of low temperature on energy absorption in laminated composites. Dutta, P.K., et al, [1993,eng] 48-2061
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] 48-1468
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Interaction between ice and propeller. Jussila, M., et al, [1991,eng] 48-4892
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Interaction of hovercraft icebreaker platforms with ice cover. Zuev, V.A., et al, [1994,eng] 48-3952
Interaction of hydrophilic liquid with ice. Nagornov, O.V., et al, [1993,eng] 48-875
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles. Il'in, S.D., et al, [1993,rus] 48-2495
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] 48-3700
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323
Laser detection of creep in frozen soil. Wang, T.D., et al, [1993,chi] 48-1456
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Localized crushing in ice-structure interaction. Meaney, R.B., [1992,eng] 48-801
Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs. Kharchenko, P.IU., et al, [1992,rus] 48-1949
Long range forecasting of spring inflow into the Cheboksary reservoir. Chemerenko, E.P., [1992,rus] 48-1947
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects. Okinshevich, V.V., [1990,rus] 48-306
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415

Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] 48-1106
Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] 48-478
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] 48-2399
Mathematical model for oil slick transport and mixing in rivers. Shen, H.T., et al, [1993,eng] 48-724
Mathematical model of concrete temperature deformations during freezing-thawing. Pavlov, A.R., et al, [1994,eng] 48-3955
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] 48-1549
Mathematical modeling of dynamic-thermodynamic behaviour of sea ice. Leppäranta, M., [1990,eng] 48-4687
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al, [1992,rus] 48-3723
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Mathematical modeling of the dynamics of permafrost thickness given a filtering layer. Kozlov, A.N., et al, [1992,rus] 48-1390
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] 48-2449
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,chi] 48-4503
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] 48-5201
Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] 48-3436
Measuring precipitation over the ocean. Bauer, P., et al, [1993,eng] 48-3645
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] 48-4837
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Melting at the leading edge of a river ice cover. Zhang, X.T., [1992,eng] 48-804
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] 48-4384
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Methods of runoff computations for cold regions in modern conditions. Lobanov, V.A., [1994,eng] 48-3361
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] 48-5229
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] 48-2868
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Mixed layer dynamics in the onset of freezing. Claes, D.C., [1990,eng] 48-3668
Mobile platform stability: MOPS subproject 02—icing (MOPS report No 7) Horjen, I., [1993,eng] 48-3066
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] 48-5190
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] 48-4584
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] 48-386
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1992,chi] 48-1413
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1993,eng] 48-453
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Modeling and observation of polarimetric SAR response to dry snow. Shi, J.C., et al, [1993,eng] 48-1706
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Modeling of fracture and damage in quasibrittle materials. Jirasek, M., [1993,eng] 48-3540
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] 48-3619
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Modeling surface flow hydrography of a spring flood in small rivers. Vodogretskii, V.E., et al, [1992,rus] 48-184
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] 48-1677
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Ornstedt, A., et al, [1994,eng] 48-4413
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Modeling the transport of heavy metals in soils. Selim, H.M., et al, [1990,eng] 48-3493
Modelling ductile behavior of columnar ice using computational plasticity. Horrigmoe, G., et al, [1994,eng] 48-5565
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] 48-3701
Modelling of glacier mass balance. Oerlemans, J., [1993,eng] 48-4183
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-2129
Modelling of rime icing of wind turbines. Finstad, K.J., et al, [1993,eng] 48-822
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] 48-4179
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Modelling the deformation and failure of ice grain assemblies. McKenna, R.F., [1993,eng] 48-4398
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] 48-5297
Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] 48-4580
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] 48-3421
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
Natural convection heat transfer in water near its density maximum. Yen, Y.C., [1993,eng] 48-895
New guidelines for blowing snow control. Tabler, R.D., [1993,eng] 48-1194
New method for estimating the heat effectiveness of a building in extreme climatic conditions. Brodach, M.M., et al, [1994,eng] 48-3874
New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] 48-1405
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] 48-5616
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] 48-4361
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Nonlinear primary and secondary creep deflection of ice plate under constant loading. Wu, Z.Q., et al, [1993,eng] 48-99
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] 48-3548
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] 48-5262
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
Numerical investigation of infiltration into frozen soil. Tao, Y.X., et al, [1993,eng] 48-888
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] 48-3724
Numerical modeling of transient creep in polycrystalline ice. Shyam Sunder, S., et al, [1993,eng] 48-924
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al, [1992,rus] 48-1912
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1153
Numerical simulation of ice jam progression in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5610
Numerical simulation of pack ice movement using the momentum conservation method. Rheem, C.K., et al, [1993,jpn] 48-1052
Numerical simulation of snowdrift. Uematsu, T., [1992,jpn] 48-3167
Numerical simulation of the climatic change caused by CO2 doubling. Wang, H.J., et al, [1993,eng] 48-768
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] 48-2841
Ocean currents induced by wind and waves. Melsom, A., [1992,eng] 48-4764
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Oil spreading in surface waters with an ice cover. Yapa, P.D., et al, [1993,eng] 48-317
On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726
On the influence of alpine glaciers on runoff. Chen, J.Y., et al, [1990,eng] 48-1575
On the influence of gravitational forces on space building air circulation schemes. Grimitlin, M.I., [1994,eng] 48-3859
On the mechanics of frozen soil cutting. Yu, Q., et al, [1993,eng] 48-759
On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] 48-2807
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] 48-2493
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Orthogonal regression study of frost heave in saline soil. Gao, J.P., et al, [1993,chi] 48-1450
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] 48-171
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Particle trajectory computer program for icing analysis of axisymmetric bodies. Frost, W., et al, [1992,eng] 48-4861
Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] 48-2353
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] 48-1682
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Permafrost formation time. Lunardini, V.J., [1993,eng] 48-428

Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Phenomenological constitutive model for columnar ice. Coon, M.D., et al, [1993,eng] 48-4321
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] 48-437
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Physico-mechanical model of self-excited processes by sea ice compacting. Smirnov, V.N., et al, [1993,eng] 48-4328
Phytoplankton ice-edge blooms in the northwestern Weddell Sea. Lancelot, C., et al, [1993,eng] 48-596
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] 48-4181
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] 48-4725
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] 48-4493
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] 48-5228
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] 48-200
Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] 48-1581
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] 48-1162
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Prediction of snow storms and snow accretion on power lines. Sasyo, Y., et al, [1993,jpn] 48-3168
Prediction of track performance on deep snowpack. Irwin, G.J., et al, [1993,eng] 48-758
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] 48-4645
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone. Vakhnenko, S.V., et al, [1992,rus] 48-186
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] 48-2645
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] 48-3214
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Rime-, mixed- and glaze-ice evaluations of three scaling laws. Anderson, D.N., [1994,eng] 48-4890
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
Root damage analysis of aircraft engine blade subject to ice impact. Reddy, E.S., et al, [1992,eng] 48-4882
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] 48-175
Scattering of electromagnetic radiation by atmospheric ice crystals. Macke, A., [1991,ger] 48-4865
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] 48-2992
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Sea ice behaviour in creep/fracture regime: an experimental and theoretical study. Zhan, C.Z., [1993,eng] 48-5381
Sea ice scenes from polarimetric SAR data. Lee, J.S., et al, [1992,eng] 48-3241
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] 48-3727
Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] 48-2295
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] 48-4891
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] 48-168
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Ship speed and ice submerging resistance. Kämäräinen, J., [1993,eng] 48-4903
Short term settlement of footing on snow foundation. Mahajan, P., et al, [1993,eng] 48-1176
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Similarity analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,eng] 48-5220
Similitude analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,chi] 48-1448
Similitude modeling of frozen soil excluding overburden. Zhu, L.N., et al, [1992,chi] 48-1419
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766
Simulation of hydrocarbon spills in permafrost. Corapcioglu, M.Y., et al, [1993,eng] 48-367
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] 48-87
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Simulation of soil freeze-thaw mechanics. Zhu, L.N., et al, [1993,eng] 48-509
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] 48-3015
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Snow adhesion to roof sheets at sub-freezing temperatures. Shimizu, M., et al, [1992,jpn] 48-3165
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] 48-3256
Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] 48-4874
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Snow hydrology. Nakatsugawa, M., et al, [1994,eng] 48-4931
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] 48-1796
Snow transport in an open channel on mild slope configuration. Fukushima, Y., et al, [1993,jpn] 48-3188
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada. Mar. 29-Apr. 1, 1992. [1993,eng] 48-1787
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskii, I.V., ed, [1992,rus] 48-4452
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Snowmelt runoff model using remote sensing. Koike, T., [1990,jpn] 48-3418
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] 48-5219
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al, [1991,eng] 48-4733
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Splitting of ice floes. Dempsey, J.P., et al, [1993,eng] 48-88
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] 48-4067
Strength and yield criteria of frozen soil. Ma, W., et al, [1992,chi] 48-1417
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] 48-2534
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
Studies in ice mechanics. Kämäräinen, J., [1993,eng] 48-4904
Studies of cubic ice crystals. Finnegan, W.G., et al, [1991,eng] 48-4755
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Studies on freezing and thawing of flat ice on the water surface. Nakatsuka, S., et al, [1993,jpn] 48-3177
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] 48-5379
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] 48-3215
Study of practicability about photoviscoelastic simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] 48-1444
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] 48-5210
Study of thermal distribution in concrete located in cold sea environment. Sakurai, H., et al, [1990,jpn] 48-4667
Study on creep of frozen soil by damage mechanics. Miao, T.D., et al, [1993,chi] 48-1438
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332
Study on snow-water mixture flow in snow drain. Sasaki, M., et al, [1993,jpn] 48-1973
Study on the general thermal parameters of the frozen NaCl soil. Zhang, L.X., et al, [1993,chi] 48-1436
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] 48-2396
Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-889
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] 48-3959
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] 48-5600
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Thaw-consolidation of unsaturated frozen soil. Yang, L.F., et al, [1993,eng] 48-5257
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] 48-1171
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-3017
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-5619
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] 48-5629

Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] **48-1772**
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] **48-3782**
Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] **48-3873**
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] **48-4154**
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] **48-2870**
Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] **48-872**
Thermal control of freezing processes with predetermined rate of freezing. Lin, S., [1993,eng] **48-897**
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] **48-761**
Thermal design for annular shaped phase-change storage systems. Prasad, A., et al, [1993,eng] **48-893**
Thermal ice load against isolated structures. Noponen, I., et al, [1994,eng] **48-5576**
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] **48-2763**
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] **48-5353**
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] **48-5164**
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] **48-4210**
Thermophysical and electric properties of saline frozen soils. Frolov, A.D., et al, [1993,eng] **48-890**
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] **48-953**
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] **48-1786**
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] **48-3072**
Three-dimensional time-dependent ship icing model. Zakrzewski, W.P., et al, [1993,eng] **48-172**
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] **48-887**
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] **48-5322**
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] **48-2510**
Total ice forces on multi-legged offshore structures. Takeuchi, T., et al, [1993,eng] **48-4318**
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] **48-2476**
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] **48-1835**
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] **48-1744**
Transient bend-gravitation waves excited by an impulse load. Kozin, V.M., [1994,eng] **48-3971**
Transient response model of low-speed diesel engine in ice-breaking cargo vessels. Larmi, M., [1993,eng] **48-3647**
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] **48-2750**
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River. Shen, H.T., et al, [1994,eng] **48-5611**
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] **48-3545**
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] **48-5211**
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] **48-4050**
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] **48-4247**
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] **48-4386**
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] **48-1878**
Universal characteristic of ice-forming nuclei. Kim, N.S., et al, [1992,eng] **48-3765**
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] **48-697**
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] **48-2921**
Use of numerical methods in ice conditions examination. Pokrashenko, S.A., [1993,eng] **48-1090**
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] **48-4330**
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] **48-2344**
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] **48-2203**
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] **48-3655**
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] **48-3656**
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] **48-4646**
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] **48-2679**
Wet snow models for estimating snow load on power lines. Sakamoto, Y., et al, [1993,eng] **48-830**
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] **48-1167**
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] **48-3815**
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] **48-4198**

See [also]: Computerized simulation

Meadow soils

Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] **48-2422**
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] **48-2548**
Mikrobiologiia krioaridnykh pochv (na primere Zabaĭkal'ia). Nimaeva, S.Sh., [1992,rus] **48-3633**
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] **48-2558**
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] **48-2284**
Subnivean development of a snowbank geophyte. Hamerlynck, E.P., et al, [1994,eng] **48-3503**

Measurement

Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] **48-2833**
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] **48-3662**
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton. Neale, P.J., et al, [1992,eng] **48-5097**
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] **48-2376**
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] **48-2917**
Glacier mass-balance measurements: a manual for field and office work. Østrem, G., et al, [1991,eng] **48-312**
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] **48-240**
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] **48-2022**
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] **48-3624**
Improving snow data.[1994,eng] **48-3238**
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition. Bidigare, R.R., et al, [1992,eng] **48-5095**
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] **48-3923**
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] **48-3784**
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] **48-720**
Trigonometric leveling 1992 on Ronne Ice Shelf. Karsten, A., et al, [1992,eng] **48-245**
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] **48-4388**
Ultraviolet radiation in Antarctica: measurements and biological effects. Weiler, C.S., ed, et al, [1994,eng] **48-4379**

See [also]: Acoustic measurement; Electrical measurement; Flow measurement; Geothermometry; Height finding; Photogrammetry; Photometry; Radiometry; Recording; Remote sensing; Sampling; Sounding; Spectroscopy; Temperature measurement; Velocity measurement; Well logging

Measuring instruments

Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] **48-3661**
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] **48-5145**
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] **48-1615**
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] **48-2828**
Dilatometer for determination of the compression modulus of soils under field conditions. Blekhman, D.A., et al, [1990,eng] **48-1388**
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] **48-1547**
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS. López-Valverde, M.A., et al, [1993,eng] **48-4220**
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] **48-2387**
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] **48-2897**
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] **48-3201**
Laser spectrometer for stratospheric trace gas measurement. Podolske, J.R., et al, [1993,eng] **48-2407**
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] **48-2383**
Measuring precipitation over the ocean. Bauer, P., et al, [1993,eng] **48-3645**
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] **48-2215**
Monitoring the motion of an antarctic ice stream. Goldstein, R.M., et al, [1993,eng] **48-1669**
New views for antarctic glaciology. Bindschadler, R.A., [1993,eng] **48-772**
Radar ice thickness measurements in north Victoria Land. Druivenga, G., et al, [1993,eng] **48-2708**
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] **48-2116**
Stratospheric waves in temperature and ozone. Fishbein, E.F., et al, [1993,eng] **48-4221**
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] **48-2404**
Trigonometric leveling 1992 on Ronne Ice Shelf. Karsten, A., et al, [1992,eng] **48-245**
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] **48-825**
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] **48-826**

See [also]: Airborne radar; Borehole instruments; Calorimeters; Cloud height indicators; Hygrometers; Meteorological instruments; Moisture meters; Precipitation gages; Probes; Radiation measuring instruments; Snow pillows; Strain measuring instruments; Thermistors; Thermocouples; Thickness gages

Mechanical ice prevention

See [also]: Ice removal

Mechanical properties

All about ice. Davey, R., et al, [1993,eng] **48-2759**
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] **48-4481**
Electro-repulsive separation system for deicing. Adams, L.J., et al, [1989,eng] **48-1875**
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] **48-400**
Ice breaker. Hellmann, J.H., et al, [1990,eng] **48-1938**
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] **48-4980**
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] **48-4837**
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] **48-4716**
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] **48-3571**
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] **48-2080**
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] **48-2868**
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] **48-417**
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] **48-2085**
Retractable tire stud. Nicholas, J.G., [1993,eng] **48-1653**
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] **48-1560**
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] **48-2392**
Why is there air in concrete. Hover, K.C., [1993,eng] **48-286**

See [also]: Avalanche mechanics; Ice mechanics; Rock mechanics; Snow mechanics; Soil mechanics

Mechanical tests

Asphalt viscoelasticity under high and low temperatures. Hase, M., [1993,ger] **48-607**
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] **48-4295**
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] **48-5163**
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] **48-439**
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] **48-4481**
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] **48-3783**
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] **48-461**
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] **48-2077**
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] **48-1102**
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] **48-447**
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] **48-395**
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] **48-454**
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] **48-4969**
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] **48-3596**
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] **48-4296**
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] **48-5374**
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] **48-3559**
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] **48-486**
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] **48-2692**
Experimental study of the effect of impurities on ice creep at -1 C. Huang, M.H., et al, [1993,eng] **48-400**
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] **48-2373**
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] **48-2111**

Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Fracture toughness of freshwater ice crystals. Gupta, V., et al, [1992,eng] 48-1552
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] 48-5114
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] 48-4297
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] 48-477
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] 48-483
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] 48-496
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] 48-3923
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] 48-4298
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] 48-1559
MSV Fennica, a novel icebreaker concept. Lohi, P., et al, [1994,eng] 48-4301
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
New course in management of cold regions construction. Bennett, F.L., [1993,eng] 48-4935
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Observations of the dynamic structure of snow avalanches. Nishimura, K., et al, [1993,eng] 48-2873
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Prestressed ice as indigenous polar construction material. Nese, P.I., et al, [1991,eng] 48-4040
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1994,eng] 48-2219
Rutsch block precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] 48-3593
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] 48-2865
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] 48-1223
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442

Meetings

1993 Council Meeting, Abisko, Sweden. Report. International Arctic Science Committee, [1993,eng] 48-298
1994 IASC meeting report. International Arctic Science Committee, [1994,eng] 48-4644
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991. [1993,eng] 48-1249
AGARD symposium on effects of adverse weather on aerodynamics. Reinmann, J.J., [1991,eng] 48-3683
Altimeter Sea Ice Workshop, Feb. 15-16, 1990. Hawkins, J.D., ed, [1990,eng] 48-1481
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report. Barrett, P.J., ed, et al, [1992,eng] 48-2319
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-1464
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-2122
Citation analysis of ice-structure interaction conference papers. Muhonen, A., [1994,eng] 48-5566
Geography meetings, research, and education in the United States. Shi, Y.F., [1993,chi] 48-4570
History of snow sciences in North America. Mergen, B., [1993,eng] 48-2942
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] 48-4289
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991, [1993,ita] 48-4091
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293
Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost. Cheng, G.D., et al, [1993,chi] 48-4569
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction. Curtin, T.B., ed, [1991,eng] 48-1480
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] 48-4571

Melting

Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
See [also]: Artificial melting; Defrosting; Glacier melting; Ice melting; Snow melting

Melting points

Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] 48-1520
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] 48-2449
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537

Meltwater

^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Comparison of bed load yield estimates for a glacial meltwater stream. Warburton, J., [1990,eng] 48-1584
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Death of an ice sheet. Lindstrom, D.R., et al, [1993,eng] 48-331
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] 48-2768
Discharge of glacierized basins and glacier mass balance. Braun, L.N., et al, [1990,eng] 48-1573
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms. Cragin, J.H., et al, [1993,eng] 48-1006
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] 48-1576
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] 48-2783
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains. Cao, Z.T., [1993,chi] 48-4591
Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] 48-2791
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] 48-2785
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] 48-3258
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland. Brown, G.H., et al, [1990,eng] 48-1589
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] 48-1567
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] 48-1218
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] 48-3781
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] 48-2095
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] 48-694
Last deglaciation event in the eastern central Arctic Ocean. Stein, R., et al, [1994,eng] 48-3737
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Mass and heat balance of Omasbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] 48-3038
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] 48-2767
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
On the influence of alpine glaciers on runoff. Chen, J.Y., et al, [1990,eng] 48-1575
Operation and performance of sludge freezing bed at Fort McCoy, Wisconsin. Martel, C.J., [1994,eng] 48-3386
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] 48-2787
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-1716
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] 48-5039
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] 48-1582

Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] 48-2778
Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] 48-1577
Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] 48-1598
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] 48-2766
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] 48-1579
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] 48-2802
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] 48-4573
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Suspended sediment load and sources in alpine glacier basins. Gurnell, A.M., et al, [1990,eng] 48-1592
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Suspended sediment transport in glacier meltwaters. Collins, D.N., [1990,eng] 48-1590
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] 48-2852
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff. Tranter, M., et al, [1993,eng] 48-1775
Variability of runoff from partially-glacierised alpine basins. Collins, D.N., et al, [1990,eng] 48-1587
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] 48-187
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

See [also]: Snowmelt

Metal ice friction

3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
Determination of the flow and impact pattern of ice pieces under ice breaking ships. Holder, G.K., et al, [1994,eng] 48-5630
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Effect of electric current on the adhesion of ice to metal piles. Paasivuori, P., et al, [1994,eng] 48-3965
Effect of lateral ice pressure on ship resistance. Spencer, D.S., et al, [1993,eng] 48-112
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] 48-4969
Electrical properties of ice. Petrenko, V.F., [1993,eng] 48-1000
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Full scale deflection of ice by an icebreaker. Gagnon, R.E., et al, [1993,eng] 48-103
Hull for ice breaking ship. Hellmann, J.H., et al, [1993,eng] 48-5525
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] 48-120
Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice load distribution on an icebreaker bow. Kayo, Y., [1993,eng] 48-118
Ice load measurements on board the cutter M.S. *Uisko*. Kivimaa, S., [1993,eng] 48-119
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Icebreaker. Herkens, H., et al, [1989,eng] 48-4085
Improvement of traditional icebreaker hull lines. Tsoi, L.G., [1994,eng] 48-5628
Interaction between ice and propeller. Jussila, M., et al, [1991,eng] 48-4892
Investigation into the effects of ice cover parameters upon ship resistance. Alekseev, IU.N., et al, [1994,eng] 48-3950
Laboratory tests of ship structures under ice loading. Vols. 2 and 3. Tuhkuri, J., [1993,eng] 48-1963
Looks of ice breaking in model and full scale. Narita, S., [1993,jpn] 48-1039
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Model facilities for ice-covered water testing. Performance in Ice-Covered Waters Committee, [1993,eng] 48-4158
Model ice resistance database: a tool for designers. Spencer, D.S., [1993,eng] 48-3116
Model/full scale ice analysis. Volume I. Keinonen, A.J., et al, [1993,eng] 48-3334
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Performance of ice-navigating vessels in the northern Baltic in winter 1992. Pöntynen, H., [1992,eng] 48-2133
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993, [1993,eng] 48-86
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Propeller-ice impact process. Veitch, B., et al, [1993,eng] 48-123
Proposal of proper choice of ice tolerant coating films. Arita, M., et al, [1993,jpn] 48-1042
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Rudder/propulsion device arrangements on icegoing vessels. Bäckström, M., et al, [1993,eng] 48-102
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] 48-175
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] 48-4891
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] 48-168
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Ship reinforcement for negotiating ice. Tromso Skipsverft, [1992,eng] 48-4423
Ship speed and ice submerging resistance. Kämäräinen, J., [1993,eng] 48-4903
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] 48-87
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174
Theoretical modelling of ice resistance of ships. Zuev, V.A., et al, [1994,eng] 48-5629

Metals

Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Failure mechanics criteria for field testing large-sized structures. Guliaev, V.P., [1990,rus] 48-50
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Heavy metal traces in antarctic ice and snow. Heumann, K.G., [1993,eng] 48-2382
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232
Metal and alloy corrosion at Mirnyy Station. Mikhailov, A.A., et al, [1993,eng] 48-2312
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Modeling the transport of heavy metals in soils. Selim, H.M., et al, [1990,eng] 48-3493
Rock-forming metals and Pb in modern Alaskan snow. Hinkley, T.K., [1993,eng] 48-3641
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Tests of metal materials and structures at low climatic temperatures; collected scientific papers. Malinin, N.I., ed, [1990,rus] 48-49
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890

See [also]: Gold; Steels

Metamorphism (snow)

Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] 48-2854
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms. Cragin, J.H., et al, [1993,eng] 48-1006
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] 48-1336
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Growth rates of depth hoar (II). Fukuzawa, T., et al, [1992,jpn] 48-3204
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416
Physical properties of snow and ice particles. Maeno, N., [1991,jpn] 48-3419
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] 48-1778
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] 48-2946
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] 48-2852

Meteorological charts

Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] 48-4380
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] 48-4384
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Solar ultraviolet irradiance at Palmer Station, Antarctica. Frederick, J.E., et al, [1994,eng] 48-4383

Meteorological data

1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] 48-3155
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Antarctic automatic weather station data for the calendar year 1991. Keller, L.M., et al, [1993,eng] 48-1662
Antarctic automatic weather station data for the calendar year 1992. Keller, L.M., et al, [1994,eng] 48-4131
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Estimating the weight of a snow cover using only meteorological factors. Shinojima, K., et al, [1993,eng] 48-2850
Freeze/frost data. Koss, W.J., et al, [1988,eng] 48-4399
Glacier geophysical studies for an ice-core site at Taylor Dome: year two. Morse, D.L., et al, [1992,eng] 48-2627

Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al, [1994,eng] 48-4766
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] 48-629
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] 48-1183
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] 48-1856
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] 48-2723
Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] 48-1869
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] 48-2964
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] 48-612
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] 48-4929
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
Particulars of weather and ice conditions in the Arctic in 1991. Kuraiov, V.K., et al, [1992,eng] 48-731
Radiation and eddy flux experiment 1993 *(REFLEX II)*. Kottmeier, C., et al, [1994,eng] 48-3928
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] 48-1197
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Record low total ozone during northern winters of 1992 and 1993. Bojkov, R.D., et al, [1993,eng] 48-301
Research studies on the snow load on roofs (2). Tosaka, M., et al, [1993,jpn] 48-1997
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] 48-2091
Seasonal snowfall statistics for selected stations.[1988,eng] 48-3495
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York. Sykes, R.B., [1993,eng] 48-2959
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] 48-4184
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] 48-616
Snowy year from coast to coast. Ludlum, D.M., [1994,eng] 48-3324
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] 48-1799
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] 48-4754
Study of ozone anomalies over the Molodezhnaya Station in the spring of 1990. Butko, A.I., et al, [1992,eng] 48-1243
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4373
Surface observation climatic summaries for Ellsworth AFB, South Dakota.[1991,eng] 48-4742
Surface observation climatic summaries for Fairbanks IAP, Alaska.[1991,eng] 48-4722
Surface observation climatic summaries for Fort Devens Ain, Massachusetts.[1991,eng] 48-4720
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas.[1991,eng] 48-4723
Surface observation climatic summaries for Fulda AAF, Germany.[1991,eng] 48-4743
Surface observation climatic summaries for Illesheim, Germany.[1991,eng] 48-4739
Surface observation climatic summaries for Kunsan AB, Korea.[1991,eng] 48-4738
Surface observation climatic summaries for McGuire AFB, New Jersey.[1991,eng] 48-4721
Surface observation climatic summaries for Wright-Patterson AFB, Ohio.[1991,eng] 48-3671
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany.[1992,eng] 48-4746
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon.[1991,eng] 48-3669
Temperature extremes. Hickcox, D.H., [1994,eng] 48-3325
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] 48-191
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] 48-2203
Vessel icing in Alaskan waters—1979 to 1984 data set. Pease, C.H., et al, [1985,eng] 48-1143
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] 48-1822
Workshop on study of polar atmosphere and cryosphere, report. Kanzawa, H., [1993,jpn] 48-1185

Meteorological factors

Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Atmospheric sciences on Ice Station Weddell. Andreas, E.L., et al, [1992,eng] 48-3780
Avalanche hazards and their weather patterns in the Tohoku District. Ito, T., et al, [1993,jpn] 48-1969
Avalanches and meteorological conditions. Aoyama, K., [1988,jpn] 48-586
Avalanches generated by snow and thunderstorms in Switzerland. Kerkmann, J., et al, [1993,ita] 48-1132
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] 48-3497
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] 48-2394
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] 48-2360
Development of a meteorological forecast for snow accumulation on transmission lines. Ito, T., et al, [1993,eng] 48-2836
DEW line's construction seasons. Cheever, M.S., [1957,eng] 48-288
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] 48-740
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] 48-704
Effect of road surface and meteorological conditions on traffic accidents in winter. Kaku, T., [1989,jpn] 48-675
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] 48-4844
Frost physical weathering at the Great Wall Station. Cui, Z.J., et al, [1992,eng] 48-79
Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] 48-2369
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Helicopter icing module for TWI. Vonder Haar, T.H., et al, [1985,eng] 48-1277
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands). Klöser, H., et al, [1994,eng] 48-4983
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90. Prézelin, B.B., et al, [1994,eng] 48-4387
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Refining de-icing tactics.[1994,eng] 48-3737
Remote sensing of aircraft icing conditions. Stankov, B B., et al, [1994,eng] 48-3010
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] 48-4067
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391
Winds at the North Pole. Johnson, M., et al, [1993,eng] 48-2218

Meteorological instruments

Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] 48-4380
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] 48-4381
Radiation and eddy flux experiment 1993 *(REFLEX II)*. Kottmeier, C., et al, [1994,eng] 48-3928
Rosemount freezing rain sensor. Stein, P., [1993,eng] 48-828
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] 48-1603
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] 48-2125
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

See [also]: Anemometers; Cloud height indicators; Hygrometers; Precipitation gages; Radiation measuring instruments; Snow pillows; Thermistors; Thermocouples

Meteorology

See [also]: Atmospheric physics; Glacial meteorology; Marine meteorology; Synoptic meteorology

Mexico

—Pico de Orizaba

Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] 48-3232
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] 48-3233

Michigan, Lake

Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951

Microanalysis

Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154

Microbiology

Bacterial destruction of proteins and protein composition of saprophytic bacteria in the Barents Sea belonging to different ecological groups. Tikhonov, P.S., [1991,rus] 48-2529
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] 48-1858
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] 48-2957
Heterotrophic bacteria in the coastal zone of the Barents Sea. Pesegov, V.G., [1991,rus] 48-2528
Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840
Membrane fatty acid analysis of antarctic bacteria. Rotert, K.R., et al, [1993,eng] 48-3823
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Microalgae distribution on Signy I. Davey, M.C., et al, [1993,eng] 48-1359
Microbial network of the marginal ice zone in the Weddell Sea. Lancelot, C., et al, [1993,eng] 48-2136
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E. et al, [1994,eng] 48-5344
Microorganism numbers in the deep layer of the central antarctic ice-sheet. Abyzov, S.S., et al, [1993,eng] 48-1666
New alga of red snow in the Windmill Is. region. Ling, H.U., et al, [1993,eng] 48-770
Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman. Il'in, G.V., [1991,rus] 48-2526
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Production of microphytobenthos in the coastal area of the Barents Sea. Kuznetsov, L.L., [1991,rus] 48-2531
Production of organic matter in antarctic sea shelf. Dhargalkar, V.K., et al, [1992,eng] 48-1525
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea. Baitaz, V.A., et al, [1991,rus] 48-2527
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Responses to temperature of an Arctic psychrophylic ice diatom. Smith, R.E.H., et al, [1994,eng] 48-3791

Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea. Fomin, O.K., [1991,rus] 48-2533
Seasonal succession of microphytoplankton in the coastal zone of East Murman. Druzhkov, N.V., et al, [1991,rus] 48-2530
Seasonal succession of zooplankton in the coastal zone of Eastern Murman. Druzhkov, N.V., et al, [1991,rus] 48-2532
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] 48-2941
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Thraustochytrid protists in antarctic fast ice?. Riemann, F., et al, [1993,eng] 48-47
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716
Vertical distribution of bacteria in Arctic sea ice. Gosink, J.J., et al, [1993,eng] 48-2314
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973
Weddell Sea algal communities. Fahl, K., et al, [1993,eng] 48-597

See [also]: Bacteria; Cryobiology; Soil microbiology

Microclimatology
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] 48-5382
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Norman Wells air terminal building. Brown, K., et al, [1994,eng] 48-3349
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Subnivean development of a snowbank geophyte. Hamerlynch, E.P., et al, [1994,eng] 48-3503
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] 48-2203
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610

See [also]: Indoor climates

Microelement content
Microelements in soils of southern Yakutia. Shindler, D.R., et al, [1992,rus] 48-4146
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517

Microrelief
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Tread for pneumatic tire intended for winter driving. Lagnier, A., [1991,eng] 48-1518

Microscope slides
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130

See [also]: Thin sections

Microscopy

See [also]: Scanning electron microscopy

Microstructure
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] 48-4562
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] 48-1338
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1429
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Microstructure damage in the frozen soil creep process. Zhang, C.Q., et al, [1993,chi] 48-1439
Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] 48-5229
Microstructure of air-entrained concrete. Rashed, A.M.I., [1991,eng] 48-3524
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] 48-2868
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] 48-2085
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] 48-2939
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Relationship between the microstructure and mechanical properties of snow. Edens, M.Q., et al, [1993,eng] 48-1175
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] 48-2671
Short term settlement of footing on snow foundation. Mahajan, P., et al, [1993,eng] 48-1176
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Study on creep of frozen soil by damage mechanics. Miao, T.D., et al, [1993,chi] 48-1438
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] 48-2870

See [also]: Ice microstructure

Microwaves
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] 48-2004
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] 48-1795
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al, [1994,eng] 48-3118
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] 48-1338
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] 48-4035
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al, [1994,eng] 48-3927
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] 48-1698
Improving of microwave remote sensing of sea ice. Shi, Z.F., et al, [1993,eng] 48-1715
Investigation of stratospheric ozone in the Arctic with the aid of a ground-based microwave spectrum analyzer. Kulikov, IU.IU., et al, [1993,rus] 48-2496
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Microwave deicing for aircraft engine propulsor blades. Martin, A.N., [1991,eng] 48-2222
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] 48-1788
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] 48-3031
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699
Portable FM-CW radar for collecting the ground truth data of snowpack. Sasaki, M., et al, [1993,eng] 48-1723
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328
Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] 48-1314
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Remote sensing of frozen soils in VHF range. Komarov, S.A., et al, [1993,eng] 48-1726
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] 48-2475
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] 48-2363
Synthetic dense media fabrication with application to sea ice. Porco, R.L., et al, [1993,eng] 48-1696

Migration

See [also]: Soil water migration

Military engineering
Cold weather demonstration of the AH-64A helicopter. Final report. Riley, M.N., et al, [1993,eng] 48-1129
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Temperature compensation techniques and technologies—an overview. Kruczynski, D.L., et al, [1991,eng] 48-3672

Military equipment
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
Bv 206: a proven concept in winter mobility. Ljunggren, J., [1993,eng] 48-1165
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] 48-1278
Cold weather demonstration of the AH-64A helicopter. Final report. Riley, M.N., et al, [1993,eng] 48-1129
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV). Richmond, P.W., et al, [1994,eng] 48-3095
Ice cleat design and testing for tracked military vehicles. Osborne, M.D., [1993,eng] 48-1164
Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] 48-4400
Military artillery for avalanche control. Abromeit, D., [1993,eng] 48-2647
Military vehicles for cold climates. Falk, A., [1994,eng] 48-3946
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
Movement of mortar baseplates on soil; mortar stability report 1(U). Aitken, G.W., et al, [1973,eng] 48-3488
Preproduction cold weather test of a landmine. Reagan, J., [1993,eng] 48-1771
Preproduction qualification test of a smoke generating system. Reagan, J., et al, [1994,eng] 48-5435
Review of footwear for cold/wet scenarios. Part I: the boot. Dyck, W., [1992,eng] 48-4750
Temperature compensation techniques and technologies—an overview. Kruczynski, D.L., et al, [1991,eng] 48-3672
Test plan for military skis and bindings. Hoger, S.E., et al, [1993,eng] 48-1770
Thermal protectiveness of electrically heated clothing and boots. Hickey, C.A., Jr., et al, [1993,eng] 48-4753

Military facilities
Airfield pavement evaluation: Springfield Air National Guard Base, Ohio. Buncher, M.S., et al, [1991,eng] 48-3667
Arctic and subarctic construction foundations for structures.[1983,eng] 48-762
Arctic and subarctic construction: utilities.[1987,eng] 48-1141
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] 48-3033
Building the DEW line. Walker, C.W., [1957,eng] 48-289
Construction calculation for freeze and thaw depths in soils.[1988,eng] 48-763
Construction on the DEW line. Cheever, M.S., [1957,eng] 48-291
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Data bases and map of units of radiational risks in Russian Arctic. Baklanov, A., et al, [1993,eng] 48-4552
DEW line's construction seasons. Cheever, M.S., [1957,eng] 48-288
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] 48-1492
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] 48-1493

Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] 48-1490
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] 48-1491
Field measurement of heat losses from hot water district heating systems. Phetteplace, G., [1993,eng] 48-2068
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] 48-3975
Heat losses from operating hot water district heating systems. Phetteplace, G., [1993,eng] 48-2069
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Siting the DEW line radar stations., Brannian, J.D., [1957,eng] 48-290
Surface observation climatic summaries for Ellsworth AFB, South Dakota.[1991,eng] 48-4742
Surface observation climatic summaries for Fort Devens Ain, Massachusetts.[1991,eng] 48-4720
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas.[1991,eng] 48-4723
Surface observation climatic summaries for Fulda AAF, Germany.[1991,eng] 48-4743
Surface observation climatic summaries for Illesheim, Germany.[1991,eng] 48-4739
Surface observation climatic summaries for Kunsan AB, Korea.[1991,eng] 48-4738
Surface observation climatic summaries for McGuire AFB, New Jersey.[1991,eng] 48-4721
Surface observation climatic summaries for Wright-Patterson AFB, Ohio.[1991,eng] 48-3671
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany.[1992,eng] 48-4746
User's guide: subsurface drainage for military pavements. Grogan, W.P., [1992,eng] 48-4751

Military operation
Arctic policy bibliography. Green, K.W., et al, [1991,eng] 48-4939
Army MANPRINT program and its relationship to industry. Sloss, D.A., et al, [1993,eng] 48-1168
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Crash landings in Greenland—1. Operation Bolero. Ancker, P.E., [1980,dan] 48-2649
Crash landings in Greenland—2. The white wilderness. Ancker, P.E., [1980,dan] 48-2650
Crash landings in Greenland—4. Traces obliterated. Ancker, P.E., [1986,dan] 48-2652
Criteria of radiation and seismic safety of underground nuclear tests. Durnik, V.P., et al, [1993,eng] 48-4547
Cross-country mobility of tracked vehicles. Andersson, B., [1993,eng] 48-1169
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV). Richmond, P.W., et al, [1994,eng] 48-3095
Distribution of white phosphorus residues from the detonation of 81-mm mortar WP smoke rounds at an upland site. Walsh, M.E., et al, [1993,eng] 48-1002
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] 48-5377
Ice penetrating moored mine. Humphrey, S.A., [1990,eng] 48-2262
Icebound curiosities of aviation history. Ancker, P.E., [1981,dan] 48-2651
Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] 48-4122
Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] 48-1869
Mountain and arctic warfare from Alexander to Afghanistan. Gregory, B., [1989,eng] 48-1932
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] 48-3031
On winter warfare. Swinzow, G.K., [1993,eng] 48-1003
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
Prediction of bow spray frequency for a naval combatant. Lebiedzinski, K., et al, [1993,eng] 48-169
Preproduction qualification test of a smoke generating system. Reagan, J., et al, [1994,eng] 48-5435
Soldiers on skis: a pictorial memoir of the 10th Mountain Division. Whitlock, F., [1992,eng] 48-1929
Under-ice broadband transient measurements and processing. Meredith, R.W., [1992,eng] 48-4744
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska. Racine, C.H., et al, [1993,eng] 48-3792

Military research
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] 48-1526
Army MANPRINT program and its relationship to industry. Sloss, D.A., et al, [1993,eng] 48-1168
Canadian Habbakuk Project; a project of the National Research Council of Canada. Gold, L.W., [1990,eng] 48-311
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] 48-1278
Data bases and map of units of radiational risks in Russian Arctic. Baklanov, A., et al, [1993,eng] 48-4552
Distribution of white phosphorus residues from the detonation of 81-mm mortar WP smoke rounds at an upland site. Walsh, M.E., et al, [1993,eng] 48-1002
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Durnik, V.P., et al, [1993,eng] 48-4561
Evaluation of pre-extraction analytical holding times for tetryl in soil. Jenkins, T.F., [1994,eng] 48-5410
Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil. Grant, C.L., et al, [1993,eng] 48-721
Experiments with explosive-contaminated soil. Jenkins, T.F., et al, [1993,eng] 48-723
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
Movement of mortar baseplates on soil; mortar stability report 1(U). Aitken, G.W., et al, [1973,eng] 48-3488
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Temperature compensation techniques and technologies—an overview. Kruczynski, D.L., et al, [1991,eng] 48-3672
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222

Military supplies
See [also]: Logistics

Military transportation
Bv 206: a proven concept in winter mobility. Ljunggren, J., [1993,eng] 48-1165
Flextrac MPV: a novel concept in a personal all-terrain vehicle. Osborne, M.D., [1993,eng] 48-1181
Ice cleat design and testing for tracked military vehicles. Osborne, M.D., [1993,eng] 48-1164
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] 48-1162
Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991, [1993,eng] 48-1160
U.S. Army's Bv 206 oversnow vehicle. Lundberg, U., [1993,eng] 48-1180

Mine shafts
Destruction and rehabilitation of shaft lining in frozen shaft. Wang, C.S., et al, [1993,chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft. Wang, C.S., et al, [1993,eng] 48-5243
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] 48-1400
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] 48-1430
See [also]: Shaft sinking

Mineralogy
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] 48-476
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] 48-458
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] 48-456
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] 48-4866
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] 48-1750
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517

Minerals
1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] 48-3330
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] 48-1139
Alaska's mineral industry 1993: a summary. Bundtzen, T.K., et al, [1994,eng] 48-3114
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Landsat linear features and mineral occurrences in Alaska. Metz, P.A., [1983,eng] 48-800
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] 48-4121
See [also]: Clay minerals

Mines (excavations)
See [also]: Mining

Mines (ordnance)
Ice penetrating moored mine. Humphrey, S.A., [1990,eng] 48-2262
Preproduction cold weather test of a landmine. Reagan, J., [1993,eng] 48-1771

Mining
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] 48-1139
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskii, N.I., et al, [1992,rus] 48-4802
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] 48-5388
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] 48-5242
Highwall stability in strip mines in permafrost. Vakili, J., [1994,eng] 48-3392
Key Lake spill. Final report.[1984,eng] 48-3677
Mining impact on permafrost hydrology. Klimovskii, I.V., et al, [1993,eng] 48-522
Mining machines serviceability under cold climate conditions. Larionov, V.P., et al, [1994,eng] 48-3985
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, , [1993,eng] 48-2372
Solution to problems in mining ore deposits in the North. Grinev, V.G., [1992,rus] 48-652
Spring thaw in the land of Cold War coal. Abbott, S., [1993,eng] 48-1643
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks. Skriabin, R.M., et al, [1994,eng] 48-3991
See [also]: Mine shafts; Placer mining; Quarries; Shaft sinking

Models
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Antarctic climate of the UKMO Unified Model. Connolley, W.M., et al, [1994,eng] 48-3041
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Basal melting of antarctic ice shelves. Minale, M., et al, [1993,eng] 48-2410
Circulation and water mass formation in the Weddell Sea. Fahrbach, E., [1993,ger] 48-767
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes. Webb, T., III, et al, [1993,eng] 48-2978
CO_2 and glacial cycles. Saltzman, B., et al, [1994,eng] 48-2912
Comparison of observed and modeled stratospheric water vapor. Mote, P.W., et al, [1993,eng] 48-636
Death of an ice sheet. Lindstrom, D.R., et al, [1993,eng] 48-331
Designing ice-resistant structures according to the limit strength criterion. Appolonov, E.M., [1992,rus] 48-749
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] 48-1338
Dynamic former ice sheets. Dowdeswell, J.A., [1990,eng] 48-1502
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] 48-4706
Exploring the southern ocean response to climate change. Final report. Martinson, D.G., et al, [1993,eng] 48-3817
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659
Glacial geology of Central and North Victoria Land, Antarctica. Verbers, A.L.L.M., et al, [1992,eng] 48-741
Glacial geomorphology: modeling processes and landforms. Harbor, J.M., [1993,eng] 48-4940
Glaciers. Knight, P.G., [1993,eng] 48-3137
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Global climate models and Antarctica. Connolley, W.M., [1992,eng] 48-78
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
Highwall stability in strip mines in permafrost. Vakili, J., [1994,eng] 48-3392
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice particles in noctilucent clouds. Sugiyama, T., [1994,eng] 48-3634
Ice technology—advancing slowly.[1992,eng] 48-3224
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] 48-2139
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687

Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] 48-5157
Model for remote sensing of anisotropic layers. Nghiem, S.V., et al, [1993,eng] 48-2408
Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] 48-2861
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] 48-4298
Modeling CH_4 and CO budgets in the troposphere. Law, K.S., et al, [1993,eng] 48-2677
Modeling of cirrus bidirectional reflectances. Brogniez, G., et al, [1993,eng] 48-2988
Modeling ozone and nitrogen budgets in the troposphere. Law, K.S., et al, [1993,eng] 48-2676
Modelling cirrus optical properties. Hess, M., et al, [1993,eng] 48-2990
Modelling wave/ice interactions in the marginal ice zone. Rottier, P., [1990,eng] 48-775
Models of boundary value problems pertaining to the Weddell Sea. Fettweis, M., et al, [1990,eng] 48-777
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] 48-2989
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] 48-340
Oceanic general circulation model applied to marginal seas. Quon, C., [1990,eng] 48-776
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] 48-507
Possible effects of ozone depletion on the global carbon cycle. Peng, T.H., [1992,eng] 48-1885
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Response of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] 48-1476
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea. Wassmann, P., et al, [1993,eng] 48-595
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] 48-5132
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Structure of ordinary ice Ih. Part II: defects in ice, volume 1: point defects. Petrenko, V.F., et al, [1994,eng] 48-5147
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K., [1993,ger] 48-1113
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Thin ice cap instability (TICI). Matteucci, G., [1993,eng] 48-2678
Two-dimensional model of the stratosphere. 1. Ko, M.K.W., et al, [1993,eng] 48-3636
Two-dimensional model of the stratosphere. 2. Schneider, H.R., et al, [1993,eng] 48-3637
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone. Tolbert, M.A., et al, [1993,eng] 48-592
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] 48-410
See [also]: Avalanche modeling; Computerized simulation; Ice models; Mathematical models; Simulation

Modification
Efficiency of using non-traditional hull lines for icebreakers. Ierusalimskiĭ, A.V., et al, [1994,eng] 48-4307
Experience of Thyssen-Waas-Vorschiffs on receiving the icebreaker *Mudyug*.[1990,ger] 48-3930
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] 48-2213
Icebreaker *Louis S St Laurent* returns to service.[1993,eng] 48-3561
'Kapitan Sorokin'.[1992,eng] 48-3225
Lake County modifies deicing spreaders.[1994,eng] 48-4248
Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] 48-4300
Snowplow mounting assembly for front-end loaders. Morrell, J.R., [1989,eng] 48-1519
Wear element for a scraping operation. Bain, R.L., et al, [1993,eng] 48-1283

Modular construction
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117
Report of summer team of the 33rd JARE, 1991-92. Sano, M., [1992,jpn] 48-2444

Moisture
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskiĭ, V.N., [1982,rus] 48-1287
Isotope shifts reflect Greenland moisture source changes. Charles, C.D., et al, [1994,eng] 48-2667
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
See [also]: Humidity; Soil water; Water content

Moisture detection
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] 48-380
Detection of water on road surface by the polarized light. Kimura, T., [1993,jpn] 48-1851
General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Snow and soil moisture-reserve measuring device. Abelentsev, V.V., et al, [1992,eng] 48-4072
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] 48-4918
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413

Moisture meters
Direct indicator of hydrous content in deposited snow. Satoh, K., et al, [1993,jpn] 48-1966
Snow and soil moisture-reserve measuring device. Abelentsev, V.V., et al, [1992,eng] 48-4072
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413

Moisture transfer
Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
Calculation of frost heave in saturated soil under constant surcharge. Sheng, Y., [1994,eng] 48-3395
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] 48-3318
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] 48-447
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] 48-2493
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] 48-1225
Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873
Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] 48-872
See [also]: Soil water migration

Molecular energy levels
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] 48-3011
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] 48-1215
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] 48-3762
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] 48-4703
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] 48-4718
Noncritical behavior of density fluctuations in supercooled water. Xie, Y.L., et al, [1993,eng] 48-1020
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] 48-2051
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] 48-2052
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] 48-2204
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] 48-2591
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261
Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] 48-2699
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] 48-2027
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Molecular structure
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] 48-4659
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] 48-3011
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] 48-1215
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] 48-3762
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] 48-1612
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
Ice-forming properties of organic reagents. IAtsimirskiĭ, V.K., et al, [1989,eng] 48-3748
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Molecular model of ice crystal growth inhibition. Lal, M., et al, [1993,eng] 48-5373
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] 48-4718
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] 48-5385
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] 48-4715
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] 48-2204
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] 48-2699
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] 48-5021
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Mongolia
Cryogenesis and paleocryogenesis in soils of Mongolia. Maksimovich, S.V., [1993,eng] 48-2278
Cryogenic processes and phenomena in Mongolia. Lombo-rinchen, R., [1993,eng] 48-426

Permafrost in the Selenge River basin (on the Mongolian territory). Sharkhuu, A., [1993,eng] 48-5236
Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] 48-5241
Snow depth mapping in Mongolia. Morton, D.C., et al, [1993,eng] 48-2967

Monitors
Accident classification in the Arctic. Frimodt-Møller, B., et al, [1992,eng] 48-4963
Arctic Monitoring and Assessment Program (AMAP). Lange, M.A., [1993,eng] 48-3323
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar. Yankielun, N.E., et al, [1993,eng] 48-3492
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] 48-840
Instrumentation for the PICO deep ice coring drill. Hancock, W.H., [1994,eng] 48-5332
Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] 48-2861
Monitoring of snow and ice accretion on overhead line test spans. Wareing, J.B., et al, [1993,eng] 48-836
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] 48-4381
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] 48-3406
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Status and direction of the development of an observation network for geocryological monitoring. Pavlov, A.V., [1992,rus] 48-4794
System of radioecological monitoring for sunken nuclear submarine. Lisovskii, I.V., [1993,eng] 48-4515
See [also]: Warning systems

Monomolecular films
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

Montmorillonite
See [also]: Clay minerals

Moon
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] 48-3150
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361

Moorings
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] 48-2897
Protective system against icebergs or floating objects. Mogridge, G.R., et al, [1993,eng] 48-1516
Study on ice forces acting on floating structures. Taguchi, Y., et al, [1990,jpn] 48-4677

Morainal lakes
See [also]: Glacial lakes

Moraines
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Composition of rock clasts in the Mt. Achernar moraine and the Lewis Cliff ice tongue. Faure, G., et al, [1992,eng] 48-2615
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] 48-3131
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] 48-4990
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Dynamics of the development of morainal formations on the northern slope of Zailiyskiy Alatau. Tokmagambetov, G.A., et al, [1992,rus] 48-4464
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] 48-4971
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] 48-4970
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] 48-3261
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] 48-4985
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] 48-3424
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] 48-2883
Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure. Sudakova, N.G., et al, [1992,rus] 48-1396
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] 48-4178
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] 48-633
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] 48-4825
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] 48-2566
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] 48-3532
Pedological changes at the edge of a Spitsbergen glacier. Pirożbujow, E., et al, [1992,eng] 48-2432
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418
Pleistocene deposits of the White Sea and its coast. Nemtsova, G.M., et al, [1993,rus] 48-3744
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] 48-4101
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskii, I.V., ed, [1992,rus] 48-4452
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826
Spatial changes and dynamics of perennial moraines of Berga Glacier in the Dzhungarskiy Alatau during 36 years. Cherkasov, P.A., [1992,rus] 48-4469
Stone roundness of moraines connected with Taku Glacier, southeastern Alaska. Seppälä, M., [1976,eng] 48-1465
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Till in the marine environment. King, L.H., [1993,eng] 48-5014

Morphogenesis
See [also]: Geomorphology

Morphology
See [also]: Geomorphology; Snow morphology

Mosses
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Leafy mosses in the middle current of the Sebayakha River (Central Yamal). Cherniad'eva, I.V., [1993,rus] 48-5283
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554

Motor vehicles
Adjustable one-way trip edge snow plow. Verseef, J.H., [1991,eng] 48-2254
Adjustable wheel for snow plow. Street, W.L., [1990,eng] 48-2174
Anti-frost system for a windshield of a motor vehicle. Tachimori, T., et al, [1990,eng] 48-2199
Anti-frost system for motor vehicle windshield utilizing saturated steam calculator. Takada, H., [1991,eng] 48-2228
Auger snowblower. O'Loughlin, H., [1989,eng] 48-4086
Automobile heater using a latent heat storage device. Tsantis, A.P., et al, [1994,eng] 48-3094
Blade of snow plough. Zolotov, IU.F., [1992,eng] 48-5513
Changes and future prospects for sidewalk snow removal equipment. Oshima, S., et al, [1988,jpn] 48-557
Changes in sidewalk snow removal equipment. Kawabata, T., et al, [1989,jpn] 48-702
Cold start automotive research efforts at the University of Alaska Anchorage. Junge, D.J., [1994,eng] 48-3089
Cold start fueling strategy for spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3091
Current status of snow removal equipment. Yamamoto, H., [1988,jpn] 48-555
Cyclohexyl nitrate fuel additive for cold starting. Dolmatov, V.IU., et al, [1992,eng] 48-5510
Decreasing energy expenditures for warming engines before ignition. Reznik, L., et al, [1994,eng] 48-3085
Detachable snow plow assembly. Kowalczyk, D., [1990,eng] 48-2166
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098
Development of a snow removal truck to manage high snowbanks. Nakamura, O., et al, [1986,jpn] 48-266
Development of a temperature compensated gas lift cylinder. Popjoy, M.A., et al, [1994,eng] 48-3093
Diesel engine cold starting with catalytically ignited recirculated exhaust gas. Sun, R.N., et al, [1994,eng] 48-3092
Effects of gas leakage and crevices on cold starting of engines. Rao, V.K., et al, [1994,eng] 48-3086
Electrically heated window for vehicle having at least three heatable zones. Forr, J.P., et al, [1993,eng] 48-4429
Engines in passenger cars under subzero conditions. Lemke, H., [1994,eng] 48-3106
Experimental car and trailer axle cornering characteristics at low friction conditions. Vågstedt, N.G., [1994,eng] 48-3107
General preheating system for cold starting of internal combustion engine. Anghelache, G., et al, [1994,eng] 48-3113
Hard insert for ice/snow clearing tool. Nilsson, E.R., et al, [1991,eng] 48-2233
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
Highway operations: progress and products update. Smith, K.H., et al, [1991,eng] 48-3705
Hydraulic system for use with snow-ice removal vehicles. Kime, J.A., et al, [1990,eng] 48-2194
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Improvement of the cold start qualities of diesel engines with swirl chambers. Mohr, H., et al, [1994,eng] 48-3084
Improving the cold start of spark ignition engines. Shayler, P.J., et al, [1994,eng] 48-3090
Improving the cold starting ability of an engine. Gillbrand, P., et al, [1990,eng] 48-2202
Initial study of railplugs as an aid for cold starting of diesels. Shen, K., et al, [1994,eng] 48-3104
Introduction to flexible plows (variable curved surface-type). Ishiguro, F., [1988,jpn] 48-590
Loading, transport, and removal of roadside snowbanks. Watanabe, T., [1986,jpn] 48-260
Lube basestock manufacturing technology and engine oil pumpability. Rossi, A., [1994,eng] 48-3100
Lubricant effects on low-temperature diesel engine cold starting. Buck, W.H., et al, [1994,eng] 48-3099
Method and apparatus for thermal control of automotive components. Inkmann, M.S., et al, [1992,eng] 48-2240
Military vehicles for cold climates. Falk, A., [1994,eng] 48-3946
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
New diesel low temperature operability test—AGELFI filtration test. Hamon, D.M., et al, [1994,eng] 48-3088
New information on the differences between studded and unstudded tyres. Mäkelä, T., et al, [1994,eng] 48-3096
New way to remove ice from streets and highways. Stirling, J., [1990,eng] 48-1667
Powered snowplow. Fujii, K., et al, [1991,eng] 48-2246
Pre-oiling system during cold-start of SI engine. Parpola, M., et al, [1994,eng] 48-3087

Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] **48-1162**
Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991. [1993,eng] **48-1160**
Proceedings. Subzero Engineering Conditions Conference, Brainerd, MN, Feb. 21-24, 1994. [1994,eng] **48-3083**
Quick connect-disconnect coupling for snow plow. Harris, G.S., [1990,eng] **48-2258**
Rear-mounted scraper. Holland, W.H., [1991,eng] **48-2227**
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] **48-1197**
Remote controlled snowthrower discharge chute deflector. Wacker, R.W., [1989,eng] **48-4083**
Results of performance tests on the BelAZ-75191 automobile in cold climate conditions. Larionov, V.P., et al, [1990,rus] **48-58**
Snow and ice cleaving machine. Ermilov, A.B., [1992,eng] **48-5517**
Snow and ice cleaving machine. Litvinenko, V.T., et al, [1992,eng] **48-5515**
Snow blower arrangement. Matsushita, Y., et al, [1992,eng] **48-4424**
Snow plough with collector. Schrottenbacher, H., [1993,eng] **48-4426**
Snow plow assembly adapted for mounting on a vehicle and method of using the same. Lilienthal, S.C., [1990,eng] **48-2181**
Snow plow attachment device. Hoffman, V.L., et al, [1990,eng] **48-2259**
Snow plow guards comprising pliant polymer. Winter, K.L., [1990,eng] **48-2195**
Snow removal apparatus and method. Gudmundsson, B.J., [1989,eng] **48-4075**
Snow removal apparatus. Hutson, B.L., [1992,eng] **48-2242**
Snow removal on Gassan Mountain highway. Omura, S., et al, [1988,jpn] **48-558**
Snow retention plough. Galkin, G.I., et al, [1992,eng] **48-4069**
Snow-plough with tilting share. Kahlbacher, A., [1990,eng] **48-4422**
Snowblade assembly. Moore, T.S., [1990,eng] **48-2180**
Snowplow truckcab ergonomics task force report. Peterson, D., [1993,eng] **48-4901**
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] **48-3105**
Trolley for transporting snow removal equipment on runways. Krivoshein, M.G., et al, [1992,eng] **48-5514**
Unique cold start method used on Volvo's new i2L unit injector diesel engine. Gustavsson, T., et al, [1994,eng] **48-3112**
Use of vehicle drive cycles to assess spark plug fouling performance. Shayler, P.J., et al, [1994,eng] **48-3102**
Wheeled carrier for a snow plow. Reppen, W.D., [1989,eng] **48-4078**
Wind deflector plate for snow plow. Morandi, J.E., et al, [1990,eng] **48-2192**
Windscreen deicing system for vehicle. Canitrot, D., et al, [1990,eng] **48-4421**
Wiper motor driving device for automotive vehicles. Nishikawa, I., [1990,eng] **48-4958**
Working unit of snow and ice cleaving machine. Ermilov, A.B., [1992,eng] **48-5516**

See [also]: All terrain vehicles; Amphibious vehicles; Snow vehicles; Tracked vehicles; Tractors

Motors

See [also]: Engines

Mountain glaciers

Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] **48-2793**
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] **48-4098**
Alpine glaciers—memories and mirrors of civilization and a mountain environment. Vivian, R., [1989,fre] **48-1819**
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] **48-3308**
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] **48-3650**
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] **48-2782**
Atmospheric constituents in high alpine ice cores. Gäggeler, H., et al, [1994,eng] **48-2717**
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] **48-3662**
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] **48-2795**
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] **48-3536**
Calculating the volume of mountain glaciers from their area. Erasov, N.V., et al, [1992,rus] **48-4461**
Casualties immersed in glacier ice. Clear and doubtful cases from glaciological view. Ambach, W., et al, [1993,eng] **48-4092**
Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] **48-3584**
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] **48-1273**
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] **48-4113**
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] **48-3583**
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] **48-4110**
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969. Finsterwalder, R., et al, [1977,ger] **48-3309**
Developing conditions, amounts and distributions of glaciers in Gongga Mountains. Su, Z., et al, [1993,chi] **48-4587**
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] **48-2520**
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] **48-2801**
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] **48-338**
Dynamics of the development of morainal formations on the northern slope of Zailiyskiy Alatau. Tokmagambetov, G.A., et al, [1992,rus] **48-4464**
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] **48-2458**
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] **48-1576**
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] **48-2388**
French Alps cirque glacier evolution related to climatic changes. Assier, A., [1993,fre] **48-4094**
Geocryology in Mt. Tianshan. Gorbunov, A.P., [1993,eng] **48-5206**
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] **48-4641**
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] **48-4100**
Glacial meteorology at the University of Innsbruck. Kuhn, M., [1990,ger] **48-3125**
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] **48-2661**
Glacier erosional landforms in Chinese mountain terrain. Lehmkuhl, F., [1991,ger] **48-3652**
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] **48-2418**
Glacier mass balance measurements on Wurtenkees in the Sonnblick region. Böhm, R., [1986,ger] **48-613**
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] **48-2783**
Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] **48-2669**
Glaciers of Norway. Østrem, G., et al, [1993,eng] **48-4030**
Glaciers of the Alps. Rott, H., et al, [1993,eng] **48-4028**
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] **48-4029**
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] **48-4093**
Glaciers of the Swiss Alps 1987/88 and 1988/89. Aellen, M., et al, [1993,ger] **48-1211**
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains. Cao, Z.T., [1993,chi] **48-4591**
Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] **48-2791**
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] **48-2711**
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] **48-2785**
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] **48-2710**
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] **48-2662**
Himalayas: a third polar region. Bahadur, J., [1993,eng] **48-2784**
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] **48-3627**
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] **48-2384**
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] **48-2995**
Ice core drilling on Mont Blanc. Maupetit, F., et al, [1994,eng] **48-2713**
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] **48-2799**
Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] **48-5570**
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] **48-2682**
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] **48-2095**
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] **48-3424**
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] **48-4104**
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] **48-612**
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] **48-4584**
Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] **48-1909**
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] **48-1306**
On the calculation of ice ablation. Dreiseitl, E., [1977,ger] **48-3312**
On the influence of alpine glaciers on runoff. Chen, J.Y., et al, [1990,eng] **48-1575**
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] **48-960**
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] **48-1382**
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] **48-356**
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] **48-1317**
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] **48-1817**
Possible alpine ice-core drilling sites, an overview. Funk, M., [1994,eng] **48-2719**
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] **48-1563**
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] **48-2786**
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] **48-2787**
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region. Zhang, X.P., et al, [1993,chi] **48-4774**
Proceedings. Convegno Glaciologico Italiano, 6th, Gressoney, Valle d'Aosta, Italy, Sep. 26-28, 1991. [1993,ita] **48-4091**
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] **48-1341**
Recent changes in glacier tongues in the Langtang Khola basin. Kappenberger, G., et al, [1993,eng] **48-2776**
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] **48-4102**
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] **48-4117**
Results from Austrian glaciers. Oerter, H., et al, [1994,eng] **48-2715**
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] **48-2714**
Retreat of alpine glaciers and the global greenhouse effect. Haeberli, W., [1994,ger] **48-5099**
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] **48-3139**
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] **48-2774**
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] **48-4027**
Schwarzmilzferner glacier in the Allgäuer Alps. Mader, R., [1991,ger] **48-3657**
Short term variations in ice dynamics of a glacier in Sweden. Jansson, E.P., [1993,eng] **48-3535**
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] **48-2781**
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] **48-2766**
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskiĭ, I.V., ed, [1992,rus] **48-4452**
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] **48-3550**
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] **48-2802**
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] **48-3542**
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] **48-4575**
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] **48-2792**
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] **48-2712**
Statistics of the measurements of length of Austrian glaciers, 1960-1975. Patzelt, G., [1977,ger] **48-3314**
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] **48-4573**
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] **48-2665**
Suspended sediment load and sources in alpine glacier basins. Gurnell, A.M., et al, [1990,eng] **48-1592**
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] **48-2664**
Suspended sediment transport in glacier meltwaters. Collins, D.N., [1990,eng] **48-1590**
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] **48-1893**
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] **48-1894**
Texture and fabric of an ice core from a Tian Shan glacier. Zhang, W.C., et al, [1993,eng] **48-1855**
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] **48-2718**
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] **48-1330**
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] **48-1234**
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] **48-4116**
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff. Tranter, M., et al, [1993,eng] **48-1775**
Variability of runoff from partially-glacierised alpine basins. Collins, D.N., et al, [1990,eng] **48-1587**

Mountain soils

Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] **48-399**

Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] 48-441
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] 48-508
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] 48-423
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] 48-469
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] 48-473

Mountain tundra
See [also]: Alpine tundra

Mountains
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] 48-3155
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] 48-5138
Australian snowfields past and present. Galloway, R.W., [1986,eng] 48-203
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] 48-2947
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] 48-3216
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] 48-3426
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] 48-73
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment. Walker, D.A., et al, [1993,eng] 48-2970
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Mountain permafrost in Europe. King, L., et al, [1993,eng] 48-5186
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Orographic microbursts in a severe winter windstorm. Turkeri, Z.A., [1993,eng] 48-1960
Permafrost in the mountain ranges of North America. Harris, S.A., et al, [1993,eng] 48-5185
Plant resources of Siberia: their contemporary state and protection. Koropachinskii, I.IU., et al, [1994,eng] 48-2479
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] 48-608
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] 48-2770
Research on permafrost and periglacial processes in mountain areas—status and perspectives. Haeberli, W., [1993,eng] 48-5184
SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] 48-616
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Studies on mountain permafrost in Asia. Qiu, G.Q., [1993,eng] 48-5187
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772

Mud
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] 48-2016

Mud circulation
See [also]: Drilling fluids

Mudflows
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] 48-4405
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Index system for delineating landslide regions. Wang, C.H., et al, [1992,eng] 48-4409
Mudflood activity in the foothills of Central Asia. Salikhova, D.Kh., et al, [1992,eng] 48-4408
Mudflows of Dzhungarskiy Alatau and some characteristics of their formation. Medeuov, A., [1992,rus] 48-4463
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061

Municipal engineering
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] 48-2872
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Safe water for villages of the North Slope Borough. Shillington, E.I., et al, [1994,eng] 48-3376
Valdez initiates sludge disposal operations. Van Hemert, W., et al, [1993,eng] 48-1886
See [also]: Urban planning

Nansen Basin
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] 48-4546
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean. Cochran, J.K., et al, [1993,eng] 48-4543

Natural gas
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] 48-1019
Canada sizes up oil, gas strikes in Yukon, N.W.T.[1994,eng] 48-2157
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Climate change and methane. Nisbet, E.G., [1990,eng] 48-1812
Direct conversion of natural gas to higher hydrocarbon liquids. Sackinger, W.M., et al, [1994,eng] 48-3984
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Effect of lowered water table on nitrous oxide fluxes from northern peatlands. Martikainen, P.J., et al, [1993,eng] 48-1121
End of the ice age. Nisbet, E.G., [1990,eng] 48-1747
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Joint ventures and the Soviet Arctic. Butler, W.E., [1990,eng] 48-2609
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] 48-635
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
Northernmost project. Stepanov, S., [1993,rus] 48-1907
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1992,chi] 48-1421
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Problems in the stability of gas hydrate deposits in the cryolithozone. Ershov, E.D., et al, [1992,rus] 48-1391
Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] 48-1897
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] 48-1018
Prospects of exploiting oil and gas resources in the Arctic shelf and tasks of hydrometeorology. Zubakin, G.K., [1992,eng] 48-729
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] 48-1836
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824
Territorial plan for environmental protection in gas producing regions in Western Siberia. Bud'kova, M.A., [1989,rus] 48-903
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Natural resources
1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] 48-3330
Accumulation and use of wastes as an integral part of the use of natural resources (Eastern Siberia). Zabortseva, T.I., [1989,rus] 48-905
Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] 48-1139
Alaska's mineral industry 1993: a summary. Bundtzen, T.K., et al, [1994,eng] 48-3114
Canada sizes up oil, gas strikes in Yukon, N.W.T.[1994,eng] 48-2157
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] 48-2456
Forest resources of Siberia. Sokolov, V.A., et al, [1994,eng] 48-2481
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] 48-2030
Joint ventures and the Soviet Arctic. Butler, W.E., [1990,eng] 48-2609
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Landsat linear features and mineral occurrences in Alaska. Metz, P.A., [1983,eng] 48-800
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] 48-2480
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] 48-4045
Petroleum potential of the Beaufort and Chukchi Seas. Cooke, L.W., [1993,eng] 48-788
Plant resources of Siberia: their contemporary state and protection. Koropachinskii, I.IU., et al, [1994,eng] 48-2479

Problem of conservation of the water basin in the Krasnoyarsk region. Nepomniashchaia, N.V., [1993,rus] 48-1524
Problem of rational use and protection of forest resources in the West Siberian North. Bud'kov, S.T., [1989,rus] 48-904
Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska. Mironova, N.A., [1988,rus] 48-916
Problems in the use of natural resources in the taiga zone. Mikhaĭlov, IU.P., ed, et al, Expanded session of the Scientific Council of the Siberian Branch of the Academy of Sciences of the USSR on the combined development of taiga territories, 16th, Irkutsk, 24-25 Nov. 1987, [1989,rus] 48-900
Prospects of exploiting oil and gas resources in the Arctic shelf and tasks of hydrometeorology. Zubakin, G.K., [1992,eng] 48-729
Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North. Vysotskiĭ, V.N., et al, [198 ,rus] 48-906
Spring thaw in the land of Cold War coal. Abbott, S., [1993,eng] 48-1648
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] 48-2509

Navigation
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] 48-5268
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Study on snow attaching to the TACAN antenna. Kuwahara, Y., et al, [1994,eng] 48-4215
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
See [also]: Ice navigation; Subglacial navigation

Needle ice
See [also]: Ice needles

Nepal
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Biotic acceleration of melting in Yala Glacier. Kohshima, S., et al, [1993,eng] 48-2795
Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] 48-2768
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] 48-354
Estimation of glacier lake outburst flood and its impact on a hydro project in Nepal. Meon, G., et al, [1993,eng] 48-2797
Glacier lakes and outburst floods in the Nepal Himalaya. Yamada, T., et al, [1993,eng] 48-2796
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] 48-3424
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] 48-2767
Nepal-Japan cooperation in research on glaciers and climates of the Nepal Himalaya. Higuchi, K., [1993,eng] 48-2769
Objectives and prevention methods for glacier lake outburst floods (GLOFs). Grabs, W.E., et al, [1993,eng] 48-2798
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] 48-2786
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] 48-2787
Recent changes in glacier tongues in the Langtang Khola basin. Kappenberger, G., et al, [1993,eng] 48-2776
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156
Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] 48-2778
Role of snowmelt in generating streamflow during spring in east Nepal. Kattelmann, R.C., [1993,eng] 48-2777
Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] 48-2774
Shrinkage of glacier AX010 since 1978, Shorong Himal, east Nepal. Kadota, T., et al, [1993,eng] 48-2781
Snow avalanches and the settlement of Langtang village, Nepal Himalaya. Watanabe, T., [1989,jpn] 48-3124
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] 48-2792

—Himalaya Mountains
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] 48-2661
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662

—Langtang Valley
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641

Netherlands
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471
Winter maintenance on porous asphalt. Noort, M., [1991,eng] 48-3070

Neutron activation analysis
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905

Neutron diffraction
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] 48-2204

Neutron scattering
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] 48-2591
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] 48-5021

New Zealand
Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] 48-205
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] 48-3131
Glaciers of New Zealand's southern alps: a century of retreat. Ruddell, A., [1990,eng] 48-2669
On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] 48-206
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341
Younger Dryas Age advance of Franz Josef Glacier. Denton, G.H., et al, [1994,eng] 48-4926

—Cook, Mount
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382

Niagara River
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] 48-5612
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] 48-5613
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] 48-5607
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] 48-5606
Numerical simulation of ice jam progression in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5610
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] 48-5609
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] 48-5608
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River. Shen, H.T., et al, [1994,eng] 48-5611

Nitrogen cycle
See [also]: Nutrient cycle

Nival relief
On the study of nival deposits in Yakutia. Kunitskiĭ, V.V., [1993,eng] 48-524

Nivation
Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] 48-205
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,chi] 48-4489
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,eng] 48-5265
On the study of nival deposits in Yakutia. Kunitskiĭ, V.V., [1993,eng] 48-524

Noise (sound)
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] 48-4740
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Modelling wave/ice interactions in the marginal ice zone. Rottier, P., [1990,eng] 48-775
On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Snow and road traffic noise. Hasebe, M., et al, [1988,jpn] 48-659

Nomenclature
See [also]: Terminology

Nomographs
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] 48-3762

Noncohesive soils
Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840

North Atlantic Ocean
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] 48-1913
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation. Weaver, A.J., et al, [1994,eng] 48-2913

North Korea
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376

North Sea
Dumping of radioactive wastes into the sea environment: scientific and practical aspects. Kuznetsov, IU.V., et al, [1993,eng] 48-4513
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] 48-4945

Northern Sea Route
Concept for the evolvement of specialized ice information for shipping in the Arctic. Brovin, A.I., [1994,eng] 48-5631
Duration of navigation without icebreakers on the Northern Sea Route. Buzuev, A.IA., [1994,eng] 48-5572
Experimental investigations of some polar sailing problems. Katsman, F., et al, [1993,eng] 48-4347
International Northern Sea Route Program. Løvås, S.M., et al, [1994,eng] 48-5593
Joint ventures and the Soviet Arctic. Butler, W.E., [1990,eng] 48-2609
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594
Transit capacity of the Northern Sea Route. Arikainen, A., [1992,eng] 48-728
Via the Northern Sea Route all year round. Burkov, G.D., [1986,rus] 48-1091

Norway
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] 48-4917
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] 48-1829
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] 48-1729
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] 48-604
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] 48-3066
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] 48-4825
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] 48-2566
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] 48-1011
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] 48-4557
River ice investigations in Norwegian watercourses—a review. Asvall, R.P., [1994,eng] 48-5536
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-4026
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Variation of energy consumption in dwellings due to climate, building and inhabitants. Pettersen, T.D., [1994,eng] 48-3871
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] 48-3655
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] 48-3656

Winter maintenance of national roads in Norway. Leland, T., [1993,eng] 48-1190

—Andøya

Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467

—Andøya

Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008

—Bondhusbreen

Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882

—Breheimen

Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369

—Heligdagshaugen

Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158

—Hopen Island

Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477

—Jan Mayen

Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033

—Kvitøya

Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet. Kvambekk, Å.S., [1992,eng] 48-2898

—Nordaustlandet

ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485

Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet. Kvambekk, Å.S., [1992,eng] 48-2898

—Omnsbreen

Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888

—Sogndal

Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622

—Spitsbergen

Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665

Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999

Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634

Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] 48-451

Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718

Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] 48-3715

Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315

Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173

Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479

Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800

Ice cores and borehole temperatures from Spitsbergen. Kameda, T., et al, [1993,eng] 48-1860

Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414

Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] 48-5478

Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] 48-1857

Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003

Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415

Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721

Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] 48-1861

Pedological changes at the edge of a Spitsbergen glacier. Pirożbujow, E., et al, [1992,eng] 48-2432

Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] 48-355

Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] 48-418

Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220

Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916

Spring thaw in the land of Cold War coal. Abbott, S., [1993,eng] 48-1648

Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463

Stratospheric volcanic aerosols and PSCs over Spitsbergen. Beyerle, G., [1994,eng] 48-3925

Surface state of subpolar glaciers from satellite data. Lefauconnier, B., et al, [1991,fre] 48-3713

Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443

—Sprongdalen

Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009

—Svalbard

Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] 48-439

Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308

Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434

DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] 48-2701

Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413

Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032

Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] 48-5367

Humus accumulation and soil formation in Svalbard. Låg, J., [1993,eng] 48-2303

Ice bottom topography at two ice floes between Kvitøya and Nordaustlandet. Kvambekk, Å.S., [1992,eng] 48-2898

Ice-core drilling on Norwegian and Svalbard glaciers. Hagen, J.O., [1994,eng] 48-2716

Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] 48-2217

Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] 48-632

Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] 48-1856

Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859

Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] 48-633

Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550

Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385

Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684

Role of climate on active layer variations, Svalbard. Migała, K., [1993,eng] 48-528

Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912

Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343

Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970

UNIS—a new aspect of arctic education. Jørgensen, T.S., [1994,eng] 48-3994

Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777

—Svartisen

Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295

—Troms

Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.L., et al, [1993,eng] 48-2883

—Vardö

Thorium, uranium and plutonium in surface air at Vardö. Kolb, W., [1993,eng] 48-4548

—Vuorasnjarhaldi Mountains

Seed survival in a high alpine block field. Moen, J., [1993,eng] 48-938

Norwegian Sea

Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726

Features of the variations in total ozone over the North Atlantic in summer. Dolgin, M.I., et al, [1993,rus] 48-2489

Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] 48-2456

Large-scale structure of the Iceland-Faeroe Front. Perkins, H., [1992,eng] 48-1780

Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] 48-5123

Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950

Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879

Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001

Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750

Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134

Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305

Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226

Nuclear explosions

Criteria of radiation and seismic safety of underground nuclear tests. Dumik, V.P., et al, [1993,eng] 48-4547

Nuclear magnetic resonance

Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044

Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883

Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250

See [also]: Electron paramagnetic resonance

Nuclear power

Data bases and map of units of radiational risks in Russian Arctic. Baklanov, A., et al, [1993,eng] 48-4552

Environmental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520

Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517

Evaluation of environmental radiational consequences after hypothetical accident on Kola nuclear power plant. Baklanov, A.A., [1993,eng] 48-4565

New generation Arktika class nuclear icebreaker feasibility study. Tsoi, L.G., [1994,eng] 48-4304

New Russian atomic icebreaker gets underway.[1993,ger] 48-2629

Nuclear powered icebreaker "Lenin": its construction. Papkovskii, B., [1994,rus] 48-5398

Pellet injection technology. Combs, S.K., [1993,eng] 48-1762

Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528

SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo*. Langseth, M., et al, [1994,eng] 48-3269

Seabed sources of radionuclides in the dumped reactor compartment of atomic icebreaker *Lenin*. Sivintsev, IU., [1993,eng] 48-4516

Technical-economic indicators and development perspectives for the nuclear fleet. Levin, B.M., [1992,rus] 48-1271

Nuclear wastes

See [also]: Radioactive wastes

Nucleating agents

Ice nucleation by bacteria: production and activity. Cochet, N., et al, [1994,eng] 48-3840

See [also]: Dry ice (trademark); Silver iodide

Nucleation

Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] 48-230

Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567

Ice particles in noctilucent clouds. Sugiyama, T., [1994,eng] 48-3634

Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450

Solid particles in the snow crystal—on the ice nucleating ability of yellow sand. Sakurai, K., [1991,jpn] 48-3420

Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600

See [also]: Artificial nucleation; Condensation nuclei; Freezing nuclei; Heterogeneous nucleation; Homogeneous nucleation; Hygroscopic nuclei; Ice crystal nuclei; Ice nuclei; Organic nuclei; Snow crystal nuclei

Nucleation rate

Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999

Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499

Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099

Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742

Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217

Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847

Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848

Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282

Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527

Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600

Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966

Nuclei

See [also]: Condensation nuclei; Freezing nuclei; Hygroscopic nuclei; Ice crystal nuclei; Ice nuclei; Organic nuclei; Snow crystal nuclei

Numerical analysis

See [also]: Analysis (mathematics)

Numerical models

See [also]: Mathematical models

Nunataks

Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341

Nutrient cycle

Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] 48-5421

Arctic Contaminants Research Program: research plan. Landers, D.H., et al, [1992,eng] 48-4898

Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123

Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] 48-1230

Chemical denitrification in frozen soils. Christianson, C.B., [1981,eng] 48-3924
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] 48-2957
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effect of freeze-thaw events on mineralization of soil nitrogen. DeLuca, T.H., et al, [1992,eng] 48-3412
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] 48-2374
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] 48-2950
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] 48-5419
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] 48-4758

Oblique photography
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500

Ocean air interface
See [also]: Air water interactions

Ocean atmosphere interactions
See [also]: Air water interactions

Ocean bottom
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430
Bathymetric charts of the Weddell Sea. Hinze, H., [1992,eng] 48-239
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC). Schultz, A., et al, [1993,eng] 48-327
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Charting the bathymetry of Weddell Sea, Antarctica. Hinze, H., [1994,eng] 48-5424
Estimation of burial depths for pipelines in the Beaufort Sea. Chouinard, L.E., [1993,eng] 48-153
Geological, geochemical, and operational summary, Aurora Well, Paul, L.E., et al, [1994,eng] 48-3329
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] 48-2457
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Laying arctic gas pipeline across Baidaratskaya Gulf. Shakirov, R.M., [1993,eng] 48-4314
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] 48-4361
On the study of bottom fauna in Anabarskiy Gulf of the Laptev Sea. Gukov, A.IU., [1992,eng] 48-2604
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Terrigenous sedimentation processes in seas and oceans. Lisitsyn, A.P., [1991,rus] 48-303
See [also]: Bottom sediment; Bottom topography

Ocean currents
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] 48-3944
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986. Colony, R.L., et al, [1989,eng] 48-3333
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] 48-1140
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] 48-1279
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Circulation and water mass formation in the Weddell Sea. Fahrbach, E., [1993,ger] 48-767
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] 48-3674
Coupled ice-ocean model of the Beaufort and Chukchi Seas. Hedstrom, K.S., et al, [1993,eng] 48-791
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] 48-4199
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] 48-1781
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Ice sheets, wayward winds and sea change. Lehman, S., [1993,eng] 48-333
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
International Arctic Buoy Program data report for 1 January 1992-31 December 1992. Colony, R.L., et al, [1993,eng] 48-3285
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Large-scale structure of the Iceland-Faeroe Front. Perkins, H., [1992,eng] 48-1780
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] 48-1913
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al, [1992,rus] 48-3723
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] 48-5412
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines. De Veaux, R.D., et al, [1993,eng] 48-2244
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Ornstedt, A., et al, [1994,eng] 48-4413
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] 48-4843
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Ocean currents induced by wind and waves. Melsom, A., [1992,eng] 48-4764
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
Oceanic general circulation model applied to marginal seas. Quon, C., [1990,eng] 48-776
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line). Fujimura, M., [1993,jpn] 48-1031
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Probable deep winter convection in Fram Strait. Bogorodskiĭ, P.V., et al, [1992,eng] 48-1767
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7. Watanabe, O., ed, NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992, [1993,eng] 48-1862
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] 48-3926
Rapid interglacial climate fluctuations driven by North Atlantic ocean circulation. Weaver, A.J., et al, [1994,eng] 48-2913
Regional current measurements in the western Weddell Sea. Muench, R.D., et al, [1992,eng] 48-3776
Satellite observations of ice/ocean eddies in the Okhotsk Sea. Wakatsuchi, M., et al, [1990,eng] 48-4674
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529
Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] 48-1081

Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] 48-1079
Water exchange between the Okhotsk Sea and Pacific Ocean. Kawasaki, Y., et al, [1993,eng] 48-1030
Water mass fine structure around Kuril Islands. Kono, T., et al, [1993,eng] 48-1029
Water masses and circulation in the Eurasian Basin. Anderson, L.G., et al, [1994,eng] 48-4222
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

See [also]: Tidal currents

Ocean environments
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Cold weather marine survival guide. Canadian Coast Guard. Arctic Ship Safety, [1993,eng] 48-3999
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] 48-787
Environmental impact of a subsea natural gas pipeline failure. Hyttinen, H., et al, [1994,eng] 48-3986
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Marine information systems as key-tools in port and ocean engineering in polar regions. Pfeiffer, K.D., et al, [1993,eng] 48-161
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-1126
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716

Ocean tides
See [also]: Tides

Ocean waves
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Collision events between adjacent ice floes driven by an ocean wave field. Rottier, P.J., et al, [1993,eng] 48-4355
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1994,eng] 48-3457
Experimental study on interactions between water waves and ice sheet. Kanada, S., et al, [1994,eng] 48-5561
Experimental study on the overtopping of breakwaters by ice floes and waves. Saeki, H., et al, [1993,eng] 48-156
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Ocean currents induced by wind and waves. Melsom, A., [1992,eng] 48-4764
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] 48-3458
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Open-water resistance and seakeeping characteristics of ships with icebreaking bows. Moton, C.J., [1991,eng] 48-4727
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] 48-3819
Response of distinct ice floes to ocean gravity waves. Løset, S., et al, [1994,eng] 48-5563
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679
Wave attenuation under ice cover. Sakai, S., et al, [1993,eng] 48-180
Wave deformation in ice covered water. Sakai, S., et al, [1993,jpn] 48-1051

Oceanographic ships
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] 48-3018
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
New research vessel for arctic research. Alexander, V., [1993,eng] 48-1027
Polar-Circle, icebreaker for polar cruises and research.[1991,fre] 48-3306
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335

Oceanographic surveys
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] 48-5002
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Atmospheric sciences on Ice Station Weddell. Andreas, E.L., et al, [1992,eng] 48-3780
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] 48-2008
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] 48-1279
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] 48-4212
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Charting the bathymetry of Weddell Sea, Antarctica. Hinze, H., [1994,eng] 48-5424
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Circulation and water mass modification in the Weddell Sea. Fahrbach, E., [1992,eng] 48-235
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] 48-3674
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] 48-787
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al, [1994,eng] 48-3927
Feasibility study for an ice-capable oceanographic ship. Strasel, E.S., et al, [1993,eng] 48-4253
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] 48-3766
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
International Arctic Buoy Project.[1993,eng] 48-3320
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Large-scale structure of the Iceland-Faeroe Front. Perkins, H., [1992,eng] 48-1780
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] 48-2824
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] 48-1815
New research vessel for arctic research. Alexander, V., [1993,eng] 48-1027
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795
Oceanographic survey near a glacier. Kutin, D.G., et al, [1992,eng] 48-2910
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line). Fujimura, M., [1993,jpn] 48-1031
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412
Recent topics in geological survey of the antarctic ocean. Nakao, S., [1993,jpn] 48-2435
Regional current measurements in the western Weddell Sea. Muench, R.D., et al, [1992,eng] 48-3776
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo*. Langseth, M., et al, [1994,eng] 48-3269
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] 48-2502
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Surface temperature and salinity of the Okhotsk Sea. IAkunin, L.P., [1993,eng] 48-1088
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Water exchange between the Okhotsk Sea and Pacific Ocean. Kawasaki, Y., et al, [1993,eng] 48-1030
Water masses and circulation in the Eurasian Basin. Anderson, L.G., et al, [1994,eng] 48-4222
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079

Oceanography
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] 48-3944
Antarctic career move for ageing torpedo. Anderson, I., [1993,eng] 48-3626
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739

Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Below the tip of an iceberg. Crane, D., [1993,eng] 48-5366
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] 48-3290
Exploring the southern ocean response to climate change. Final report. Martinson, D.G., et al, [1993,eng] 48-3817
First Soviet-American oceanographic expedition in the Chukchi Sea (CHOEX/ICE-90). Sen'ko, N.P., [1992,eng] 48-737
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] 48-2049
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] 48-4199
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] 48-4188
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
How the Cold Regions database covers polar oceanography. Hibben, S.G., [1994,eng] 48-5093
Hydrography of Potter Cove, a small fjord-like inlet on King George Island (South Shetlands). Klöser, H., et al, [1994,eng] 48-4983
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] 48-4186
Iceberg noises. Zhitkovskii, IU.IU., [1994,eng] 48-4473
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] 48-1833
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Omstedt, A., et al, [1994,eng] 48-4413
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Models of boundary value problems pertaining to the Weddell Sea. Fettweis, M., et al, [1990,eng] 48-777
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] 48-4843
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] 48-340
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Operational performance of the RV *Nathaniel B. Palmer*. Schultz, L.A., et al, [1994,eng] 48-4308
Optical measurements. Hökedal, J., et al, [1992,eng] 48-2906
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Probable deep winter convection in Fram Strait. Bogorodskiĭ, P.V., et al, [1992,eng] 48-1767
Propulsion plant of the *James Clark Ross*.[1991,eng] 48-3615
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Report of R/V cruises in Barents and Greenland Seas. Vinje, T., [1992,eng] 48-2896
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] 48-3727
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] 48-653
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Terrigenous sedimentation processes in seas and oceans. Lisitsyn, A.P., [1991,rus] 48-303
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

Oceans
Global climate models and Antarctica. Connolley, W.M., [1992,eng] 48-783
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] 48-1508

Offshore drilling
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report. Barrett, P.J., ed, et al, [1992,eng] 48-2319
Arctic drilling fleet to get manager.[1992,eng] 48-2663
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] 48-1019
Challenges within oil and gas exploration and production in arctic regions. Usterud, O., et al, [1994,eng] 48-5562
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] 48-179
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] 48-2643
Concrete goes to sea for oil.[1994,eng] 48-4039
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993, [1993,eng] 48-787
Development of multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-113
Drilling options for the Cape Roberts Project. Pyne, A.R., et al, [1992,eng] 48-2321
Environmental impact assessment, Cape Roberts Project. Keys, J.R., [1992,eng] 48-2323
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] 48-2456
Floating semi-submersible drilling rig "Sever". Potapov, V.M., [1992,rus] 48-747
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] 48-3329
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795
Offshore structures for arctic oil and gas operations. Krahl, R.B., et al, [1990,eng] 48-4685
Oil spill response preparedness. Murrell, T., [1993,eng] 48-790
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] 48-1047
Producing Prudhoe Bay. Sohio-BP (Standard Oil Company of Ohio-British Petroleum Company), [1978,eng] 48-3328
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] 48-1018
Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] 48-789
Russian arctic shelf hydrocarbon development to proceed. George, D., [1993,eng] 48-1017
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358

Offshore permafrost
See [also]: Subsea permafrost

Offshore structures
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990, [1990,eng] 48-4664
Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Adfreeze bond strength between sea ice and materials used for offshore structures. Hara, F., et al, [1994,eng] 48-3988
Analyses of the response of Molikpaq to the ice loading event of April 12, 1986. Finn, W.D.L., et al, [1994,eng] 48-5615
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Chaotic dynamic ice behavior in Molikpaq ice-structure interactions. Nixon, W.A., et al, [1994,eng] 48-5618
Citation analysis of ice-structure interaction conference papers. Muhonen, A., [1994,eng] 48-5566
Compressive ice failure: critical zones of high pressure. Jordaan, I.J., et al, [1994,eng] 48-5589
Computation of sheet ice and ridge ice forces on a faceted cone. Wang, Z., et al, [1993,eng] 48-152
Computation of sheet ice forces on a faceted conical structure. Izumiyama, K., et al, [1993,eng] 48-142
Concrete goes to sea for oil.[1994,eng] 48-4039
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
Damage evolution during impact of an ice bar with lateral confinement. Karr, D.G., et al, [1993,eng] 48-4334
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] 48-3024
Design concepts for Sakhalin offshore production platforms. Gulati, K.C., [1993,eng] 48-139
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures. Matskevich, D.G., [1994,eng] 48-3028
Earthquake response of offshore structures in sea ice (part 4). Adachi, H., et al, [1990,jpn] 48-4669
Earthquake response of offshore structures in sea ice (part 7). Takada, Y., et al, [1993,jpn] 48-1035
Effect of Bohai ice crushing strength on vertical structures. Zhang, M.Y., et al, [1993,chi] 48-2096
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Experimental investigations on extrusion of crushed ice. Tuhkuri, J., et al, [1994,eng] 48-5586
Experimental study of ice forces on multi-legged structures. Kato, K., et al, [1990,jpn] 48-4678
Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] 48-4317
Experimental study on local ice pressures acting on structures. Tozawa, S., et al, [1993,jpn] 48-1038
Field investigation of spray icing on offshore experimental structure. Hirasawa, M., et al, [1990,jpn] 48-4668
Field tests for iceberg impact loading. Bruneau, S.E., et al, [1994,eng] 48-5556
Fracture of multiyear sea ice acting on an offshore structure. Lu, M.C., et al, [1993,eng] 48-145
Freeze plug isolation for undersea gas line. Knott, T., [1994,eng] 48-5046
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Global ice loads on arctic structures interpreted from foundation displacements. Hewitt, K.J., et al, [1994,eng] 48-3363
Gravity base structure for an offshore platform in arctic regions. Barbaras, G.A.A., et al, [1990,eng] 48-2175
Ice force design and measurement of a conical structure. Määttänen, M., [1994,eng] 48-5577

Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] 48-1538
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
Ice forces on inclined circular structures—theoretical and experimental studies. Kato, K., et al, [1993,jpn] 48-1037
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice load distribution on a faceted conical structure. Timco, G.W., et al, [1993,eng] 48-150
Ice load on wide structure in non-simultaneous failure of ice sheet by shot noise model. Takeuchi, T., et al, [1994,eng] 48-5559
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-4316
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Ice loads on multifaceted conical structures. Croasdale, K.R., et al, [1993,eng] 48-138
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Ice rubble buildup on conical structures. McKenna, R.F., et al, [1994,eng] 48-5555
Ice strength criteria and their role in ice load determination. Matskevich, D.G., [1994,eng] 48-5617
Iceberg/structure interaction—effects of ice temperature on the impact force. Løset, S., et al, [1994,eng] 48-5558
Influence of compliance of structure on ice load. Izumiyama, K., et al, [1994,eng] 48-5560
Initial conditions of ice-structure interaction problem. Bekker, A.T., et al, [1994,eng] 48-3026
Laboratory investigations of ice-structure contact. Tuhkuri, J., [1993,eng] 48-151
Large-scale ice fracture experiments: phase 1. Kennedy, K.P., et al, [1993,eng] 48-143
Large-scale ice fracture experiments: phase 2. Kennedy, K.P., et al, [1994,eng] 48-5568
Load distribution at the contact between an ice cover and a vertical wall structure. Fransson, L., [1994,eng] 48-3972
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Logistics options for the Cape Roberts Project. Macfarlane, M., [1992,eng] 48-2322
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] 48-3066
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Model for ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-148
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] 48-144
Modelling dynamic ice forces. Brown, T.G., [1994,eng] 48-5614
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] 48-3701
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] 48-2129
New ships and offshore structures for the Arctic.[1992,rus] 48-750
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
Non-simultaneous ice failure on wide and narrow off-shore structures. Fransson, L., et al, [1994,eng] 48-5616
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] 48-4361
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Offshore structures for arctic oil and gas operations. Krahl, R.B., et al, [1990,eng] 48-4685
Offshore structures in the presence of ice floes. Sugai, K., et al, [1993,jpn] 48-1034
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Parametric sensitivity in ice force calculation models. Timco, G.W., et al, [1994,eng] 48-5575
Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] 48-1537
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992. [1992,eng] 48-1532
Proceedings. POAC 93. International Conference on Port and Ocean Engineering under Arctic Conditions, 12th, Hamburg, Aug. 17-20, 1993. [1993,eng] 48-86
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994. [1994,eng] 48-5535
Protective system against icebergs or floating objects. Mogridge, G.R., et al, [1993,eng] 48-1516
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Report of the IAHR Working Group on Ice Forces on Structures. Wessels, E., [1992,eng] 48-1561
Review of ice forces and failure modes on the Molikpaq. Wright, B.D., et al, [1994,eng] 48-5620
Selection of standard level for sea ice strength. Truskov, P.A., et al, [1993,eng] 48-1036
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Structure-ice interaction for a Bohai Bay oil production project. Lindholm, J.E., et al, [1993,eng] 48-4319
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] 48-1235
Study on ice forces acting on floating structures. Taguchi, Y., et al, [1990,jpn] 48-4677
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] 48-5619
Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] 48-5576
Total ice forces on multi-legged offshore structures. Takeuchi, T., et al, [1993,eng] 48-4318
Transfer of offshore technology from the Arctic to the Antarctic. Yates, J., et al, [1993,eng] 48-4358
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
Wave and ice forces on artificial islands and arctic structures. Machemehl, J.L., [1990,eng] 48-2679
See [also]: Floating structures; Hydraulic structures

Oil
See [also]: Crude oil

Oil industry
See [also]: Petroleum industry

Oil recovery
Arctic and Marine Oilspill Program—AMOP. Meikle, K.M., [1989,eng] 48-4138
Burning of diesel oil spill. D'Atri, B., et al, [1993,eng] 48-3719
Cold environment tests of oil skimmer. Wessels, E., [1993,eng] 48-162
Direct conversion of natural gas to higher hydrocarbon liquids. Sackinger, W.M., et al, [1994,eng] 48-3984
Efficiency of equipment to reduce the harmful effects of oil spills at sea—an overview. Løset, S., [1993,eng] 48-160
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Mathematical model for oil slick transport and mixing in rivers. Shen, H.T., et al, [1993,eng] 48-724
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721
Oil and hazardous substance contingency plan for Alaska. Lautenberger, C., et al, [1993,eng] 48-3717
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Oil spill response preparedness. Murrell, T., [1993,eng] 48-790
Oil spill simulations as a contingency planning tool offshore West Greenland. Christensen, F.T., et al, [1993,eng] 48-158
Preliminary engineering-geocryological investigations in the oil and gas bearing regions. Mel'nikov, E.S., et al, [1994,eng] 48-3401
Proceedings. Arctic and Marine Oil Spill Program (AMOP) Technical Seminar, 16th, Calgary, Alberta, June 7-9, 1993, [1993,eng] 48-3714
Prospects of exploiting oil and gas resources in the Arctic shelf and tasks of hydrometeorology. Zubakin, G.K., [1992,eng] 48-729
Results from oil-spill response research 1991-1992. Tennyson, E.J., [1993,eng] 48-793
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155

Oil spills
Applying field-expedient bioreactors and landfarming in Alaskan climates. Reynolds, C.M., et al, [1994,eng] 48-4004
Arctic and Marine Oilspill Program—AMOP. Meikle, K.M., [1989,eng] 48-4138
Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] 48-4921
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Burning of diesel oil spill. D'Atri, B., et al, [1993,eng] 48-3719
Cold environment tests of oil skimmer. Wessels, E., [1993,eng] 48-162
Conference proceedings. Information Transfer Meeting, 5th, Anchorage, Jan. 20-22, 1993. [1993,eng] 48-787
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Drift and spread of oil in broken ice—field experiment. Vefsnmo, S., et al, [1994,eng] 48-5567
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils. Bech, C., et al, [1993,eng] 48-3720
Efficiency of equipment to reduce the harmful effects of oil spills at sea—an overview. Løset, S., [1993,eng] 48-160
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Environmental impact of a subsea natural gas pipeline failure. Hyttinen, H., et al, [1994,eng] 48-3986
Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] 48-3715
Experimental oil spill in the Barents Sea—drift and spread of oil in broken ice. Vefsnmo, S., et al, [1994,eng] 48-4924
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-22
Field bioremediation rates in a cold region landfarm: spatial variability. Reynolds, C.M., [1993,eng] 48-297
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-4360
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Laser ignition of arctic oil spills: engineering design. Frish, M., et al, [1986,eng] 48-4172
Mathematical model for oil slick transport and mixing in rivers. Shen, H.T., et al, [1993,eng] 48-724
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] 48-3619
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721
Oil and hazardous substance contingency plan for Alaska. Lautenberger, C., et al, [1993,eng] 48-3717
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
Oil spill response preparedness. Murrell, T., [1993,eng] 48-790
Oil spill simulations as a contingency planning tool offshore West Greenland. Christensen, F.T., et al, [1993,eng] 48-158
Oil spreading in surface waters with an ice cover. Yapa, P.D., et al, [1993,eng] 48-317
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Proceedings. Arctic and Marine Oil Spill Program (AMOP) Technical Seminar, 16th, Calgary, Alberta, June 7-9, 1993, [1993,eng] 48-3714
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Report on Alaska's oil-spill response 1991-92. Marilyn Heiman and Associates, [1993,eng] 48-4046
Results from oil-spill response research 1991-1992. Tennyson, E.J., [1993,eng] 48-793
Simulation of hydrocarbon spills in permafrost. Corapcioglu, M.Y., et al, [1993,eng] 48-367
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716

Oil storage
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432

Oil transportation
See [also]: Petroleum transportation

Oil wells
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] 48-3329

Okhotsk Sea
Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea. Sato, K., [1988,jpn] 48-1838
Effect of the equatorial Pacific on Okhotsk Sea ice. Tachibana, Y., et al, [1990,jpn] 48-4672
Evaluation of accuracy for numerical sea ice forecast in the seas around Hokkaido. Sato, K., et al, [1990,jpn] 48-4681

Experiment on durability of lightweight concrete exposed in the Okhotsk Sea. Sakurai, H., et al, [1993,jpn] 48-1043
Ice algae in the subarctic ocean: review. Taguchi, S., [1990,eng] 48-4673
Ice forecasting in the southern Okhotsk Sea. Toyota, T., et al, [1993,jpn] 48-1069
Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands. Perestenko, L.P., [1993,rus] 48-5274
MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] 48-1058
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] 48-3157
Possibility of one-month forecast of sea ice. Kano, Y., et al, [1993,jpn] 48-1068
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Satellite observations of ice/ocean eddies in the Okhotsk Sea. Wakatsuchi, M., et al, [1990,eng] 48-4674
Satellite time series monitoring of Okhotsk Sea ice in 1992. Ishida, K., et al, [1993,jpn] 48-1067
Sea ice information from satellite images (part 2). Aoshima, M., [1993,jpn] 48-1070
Sea-ice features interpreted in a combination of multi sensor data. Ono, N., [1990,jpn] 48-4878
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989. Sato, K., et al, [1990,jpn] 48-4680
Surface temperature and salinity of the Okhotsk Sea. IAkunin, L.P., [1993,eng] 48-1088
Variability in the Okhotsk Sea ice. Nishio, F., et al, [1993,eng] 48-1066
Water exchange between the Okhotsk Sea and Pacific Ocean. Kawasaki, Y., et al, [1993,eng] 48-1030
Water mass fine structure around Kuril Islands. Kono, T., et al, [1993,eng] 48-1029

Ontario, Lake
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095

Operating costs
See [also]: Cost analysis

Optical phenomena
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] 48-1213

Optical properties
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
Atmospheric radiative characteristics in a Canadian climatic model: Barker, H.W., et al, [1994,eng] 48-5133
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] 48-4474
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] 48-5028
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] 48-1336
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Modeling of cirrus bidirectional reflectances. Brogniez, G., et al, [1993,eng] 48-2988
Modelling cirrus optical properties. Hess, M., et al, [1993,eng] 48-2990
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] 48-2992
Single scattering by non-spherical ice particles. Macke, A., [1993,eng] 48-2991
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
See [also]: Albedo; Atmospheric attenuation; Attenuation; Ice crystal optics; Ice optics; Light transmission; Reflectivity; Snow optics; Transmissivity

Optical transmission
See [also]: Ice crystal optics; Ice optics; Snow optics

Organic nuclei
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] 48-2236
Ice-forming properties of organic reagents. IAtsimirskiĭ, V.K., et al, [1989,eng] 48-3748
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219

Organic soils
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696

Organizations
1993 Council Meeting, Abisko, Sweden. Report. International Arctic Science Committee, [1993,eng] 48-298
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-1464
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-2122
Arctic sciences program research summaries, 1992. Fondrk, J., ed, et al, [1993,eng] 48-1463
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States. Wakeford, B., ed, et al, [1993,eng] 48-2707
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] 48-3122
CRREL retrospective 1986-1991. U.S. Army Cold Regions Research and Engineering Laboratory, [1992,eng] 48-2132
CRREL's first 25 years, 1961-1986. U.S. Army Cold Regions Research and Engineering Laboratory, [1986,eng] 48-2070
Forging new partnerships in the north: the Northern Forum and the Barents Euro- Arctic Council. Lange, M.A., [1993,eng] 48-3321
Glacial meteorology at the University of Innsbruck. Kuhn, M., [1990,ger] 48-3125
Hokkaido University Institute of Low Temperature Science. Fujino, K., [1987,jpn] 48-278
IASC as legal basis for international arctic cooperation. Machowski, J., [1993,eng] 48-5000
Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] 48-1426
Multi-lingual index of permafrost terms. Van Everdingen, R.O., [1993,eng] 48-470
Polar research. Strategy and action plan 1993-1997. Denmark. Kommissionen for Videnskabelige Undersøgelser i Grønland (Commission for Scientific Research in Greenland), [1992,dan] 48-5271
Recent trends and prospect of Italian glaciological research. Smiraglia, C., [1993,ita] 48-4112
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction. Onoda, M., [1987,jpn] 48-274
Sawauchi Village Institute of Snow Country Culture. Takahashi, T., [1989,jpn] 48-673
Snow and ice in the publications of the Canadian Institute, 1852-1914. Adams, P., [1993,eng] 48-2943
State Key Laboratory of Frozen Soil Engineering, 1993. Lanzhou Institute of Glaciology and Geocryology, [1993,chi] 48-2130
UNIS—a new aspect of arctic education. Jørgensen, T.S., [1994,eng] 48-3994
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] 48-5416

Orientation
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] 48-3790
Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] 48-3251
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] 48-1612
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] 48-1475
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Relict iceberg marks near Montreal, Quebec. Delage, M. et al, [1993,fre] 46-1147
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] 48-2392
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979
See [also]: Slope orientation

Origin
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] 48-3891
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] 48-3755
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Ice spikes—can you explain them. Perry, H.F., [1993,eng] 48-316
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] 48-206
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Problem of taiga origin. History of the subject. Prilepskiĭ, N.G., [1993,rus] 48-5272
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890

Orographic effects
See [also]: Topographic effects

Oscillations
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] 48-3809
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827

Pressure melting and friction in ice-structure interaction. Xiao, J., et al, [1992,eng] **48-1537**
See [also]: Glacier oscillation; Vibration

Outwash
Comparison of bed load yield estimates for a glacial meltwater stream. Warburton, J., [1990,eng] **48-1584**
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] **48-4405**
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] **48-2454**
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] **48-3486**
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] **48-5039**
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] **48-4406**
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] **48-4988**
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] **48-4410**
Suspended sediment load and sources in alpine glacier basins. Gurnell, A.M., et al, [1990,eng] **48-1592**
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] **48-2664**
Suspended sediment transport in glacier meltwaters. Collins, D.N., [1990,eng] **48-1590**

Oxygen
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] **48-5026**
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] **48-3007**
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] **48-3541**

Oxygen isotopes
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] **48-944**
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] **48-5307**
Comparison of oxygen isotope records from the GISP2 and GRIP Greenland ice cores. Grootes, P.M., et al, [1993,eng] **48-1900**
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] **48-1496**
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] **48-5635**
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] **48-1495**
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] **48-3030**
Oxygen-18 of snow meltwater and snow cover. Suzuki, K., [1993,jpn] **48-3187**
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] **48-227**
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] **48-4189**
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] **48-4529**

Ozone
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] **48-5504**
Ab initio characterization of ClOOH: implications for atmospheric chemistry. Lee, T.J., et al, [1993,eng] **48-2316**
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] **48-5451**
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] **48-2577**
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] **48-5477**
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] **48-5483**
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] **48-2637**
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] **48-5480**
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange. Gruzdev, A.N., et al, [1992,eng] **48-3764**
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] **48-189**
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] **48-287**
Antarctic ozone hole: recent topics. Ito, T., [1993,jpn] **48-2436**
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] **48-4014**
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] **48-4284**
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] **48-4629**
Atmospheric ozone study (Ozone-90). Zaĭtseva, N.A., ed, et al, [1993,rus] **48-2483**
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] **48-964**
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] **48-4621**
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] **48-3896**
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] **48-4633**
Chemical depletion of ozone in the Arctic lower stratosphere during winter 1992-93. Manney, G.L., et al, [1994,eng] **48-5124**
Chlorine threat to stratospheric ozone. Waters, J.W., [1993,eng] **48-2666**
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] **48-5494**
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] **48-631**
Climate and environmental change at high northern latitudes. Kullman, L., [1994,eng] **48-4975**
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] **48-3047**
Comparative antarctic ozone spectrophotometry. Nichol, S.E., et al, [1993,eng] **48-1360**
Condensed phase dynamics of OClO. Dunn, R.C., [1993,eng] **48-1025**
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] **48-5441**
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] **48-3133**
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton. Neale, P.J., et al, [1992,eng] **48-5097**
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna*. Karentz, D., et al, [1992,eng] **48-5096**
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] **48-5439**
Dynamics of total ozone content in Antarctica. Radionov, V.F., et al, [1993,rus] **48-2485**
Effect of algaeic methanes on atmospheric ozone. Itoh, N., et al, [1994,eng] **48-4157**
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] **48-5487**
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] **48-2477**
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] **48-4380**
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] **48-4048**
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] **48-2579**
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] **48-3046**
Features of the variations in total ozone over the North Atlantic in summer. Dolgin, M.I., et al, [1993,rus] **48-2489**
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere. Shalamianskiĭ, A.M., et al, [1993,rus] **48-2**
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] **48-5502**
Global climate. Kondrat'ev, K.IA., [1992,rus] **48-304**
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] **48-190**
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] **48-5030**
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] **48-5481**
Halocarbons in the arctic and antarctic atmosphere. Sturges, W.T., [1993,eng] **48-3053**
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] **48-3061**
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] **48-3730**
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] **48-5446**
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] **48-2575**
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] **48-2580**
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] **48-4596**
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] **48-4288**
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] **48-5507**
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] **48-2491**
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] **48-5456**
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] **48-5478**
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] **48-5475**
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] **48-3811**
Interferometer measurements of O_3, HNO_3 and $ClONO_3$ over the Arctic. Von Clarmann, T., et al, [1993,eng] **48-3640**
Investigation of stratospheric ozone in the Arctic with the aid of a ground-based microwave spectrum analyzer. Kulikov, IU.IU., et al, [1993,rus] **48-2496**
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles. Il'in, S.D., et al, [1993,rus] **48-2495**
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] **48-2474**
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] **48-1183**
Kinetics and photochemistry of halogen oxides relevant to the stratosphere. Mauldin, R.L., III, [1992,eng] **48-3300**
Laboratory simulations of polar stratospheric clouds. Marti, J.J., [1994,eng] **48-3552**
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] **48-2431**
Laser spectrometer for stratospheric trace gas measurement. Podolske, J.R., et al, [1993,eng] **48-2407**
Major results from SAGE II. Poole, L.R., et al, [1993,eng] **48-3732**
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90. Prézelin, B.B., et al, [1994,eng] **48-4387**
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] **48-5455**
Measurement of stratospheric NO_2 by ISAMS. Reburn, W.J., et al, [1993,eng] **48-4219**
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica. IUrganov, L.M., [1993,rus] **48-2488**
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition. Bidigare, R.R., et al, [1992,eng] **48-5095**
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] **48-339**
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] **48-3820**
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] **48-3897**
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] **48-4384**
Microwave sounding of antarctic stratospheric ozone content. Waters, J.W., et al, [1993,eng] **48-962**
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] **48-630**
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] **48-3147**
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] **48-188**
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] **48-3037**
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] **48-3733**
Modeling ozone and nitrogen budgets in the troposphere. Law, K.S., et al, [1993,eng] **48-2676**
Modulation of the atmospheric annual cycle in the Southern Hemisphere. Hurrell, J.W., et al, [1994,eng] **48-4927**
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] **48-3149**
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] **48-3052**
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] **48-4631**
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] **48-5459**
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] **48-5493**
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] **48-4381**
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] **48-5448**
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] **48-3145**
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] **48-5438**
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] **48-4625**
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] **48-3051**
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] **48-3296**
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] **48-5447**
Ozone hole reaches new low. Kerr, R.A., [1993,eng] **48-997**
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] **48-2585**
Ozone mixing in the antarctic polar vortex. Bowman, K.P., et al, [1993,eng] **48-965**
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] **48-4013**
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] **48-5491**
Photochemical mechanism of the spring anomaly in the stratospheric ozone in Antarctica. Deminov, I.G., [1993,rus] **48-2492**
Physical chemistry of the H2SO4/HNO3/H2O system. Molina, M.J., et al, [1993,eng] **48-330**
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] **48-4700**
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] **48-5119**
Polar sunrise studies. Bottenheim, J.W., [1993,eng] **48-3048**
Possible effects of ozone depletion on the global carbon cycle. Peng, T.H., [1992,eng] **48-1885**
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] **48-3899**
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] **48-3731**

Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992. [1993,eng] 48-3045
Radiation amplification factors: improved formulation accounts for large increases in ultraviolet radiation associated with antarctic ozone depletion. Booth, C.R., et al, [1994,eng] 48-4382
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Record low ozone values over Canada in early 1993. Kerr, J.B., et al, [1993,eng] 48-1114
Record low total ozone during northern winters of 1992 and 1993. Bojkov, R.D., et al, [1993,eng] 48-301
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] 48-5506
Results of total ozone measurements over Heiss Island in winter, 1989. Dorokhov, V.M., [1993,rus] 48-2487
Role of clouds and ozone on spectral ultraviolet-B radiation. Gautier, C., et al, [1994,eng] 48-4385
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] 48-2475
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] 48-1710
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] 48-3146
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Solar ultraviolet irradiance at Palmer Station, Antarctica. Frederick, J.E., et al, [1994,eng] 48-4383
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] 48-4483
Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] 48-5453
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [199?,eng] 48-3911
Stratospheric dryness: antip as d desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] 48-624
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Stratospheric ozone and solar radiative climate forcing. Haigh, J.D., [1994,eng] 48-5323
Stratospheric ozone depletion by ClONO2 photolysis. Toumi, R., et al, [1993,eng] 48-336
Stratospheric ozone layer—an overview. Peter, T., [1994,eng] 48-2745
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] 48-5442
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Stratospheric waves in temperature and ozone. Fishbein, E.F., et al, [1993,eng] 48-4221
Studies of dynamical processes affecting the distribution of stratospheric ozone. Bowman, K.P., [1993,eng] 48-1901
Study of ozone anomalies over the Molodezhnaya Station in the spring of 1990. Butko, A.I., et al, [1992,eng] 48-1243
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989. Khattatov, V.U., et al, [1993,rus] 48-2486
Summertime tropospheric ozone distributions over central and eastern Canada. Anderson, B.E., et al, [1994,eng] 48-4628
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Theoretical support for the Airborne Antarctic Ozone Experiment. Final report. Hartmann, D.L., [1992,eng] 48-3818
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Total ozone global field oscillations. Gruzdev, A.N., et al, [1992,eng] 48-2245
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
Total ozone related to stratospheric temperature over Showa Station. Chubachi, S., [1993,eng] 48-593
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986. Karol', I.L., et al, [1993,rus] 48-2484
Trends in total ozone over southern African stations between 1979 and 1991. Kalicharran, S., et al, [1993,eng] 48-4390
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Two-dimensional model of the stratosphere. 1. Ko, M.K.W., et al, [1993,eng] 48-3636
Two-dimensional model of the stratosphere. 2. Schneider, H.R., et al, [1993,eng] 48-3637
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] 48-4386
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] 48-4388
Ultraviolet radiation in Antarctica: measurements and biological effects. Weiler, C.S., ed, et al, [1994,eng] 48-4379
Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone. Tolbert, M.A., et al, [1993,eng] 48-592
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Variations of tropospheric ozone concentration at Syowa Station. Aoki, S., [1993,jpn] 48-2442
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
Weather contributes to record ozone loss. Walker, G., [1993,eng] 48-996
Will the ozone hole over Antarctica affect the productivity of the southern ocean. El-Sayed, S.Z., [1992,eng] 48-3246
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586

Pack ice

Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] 48-4740
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] 48-2643
Effect of waves on pancake ice collisions. Frankenstein, S., et al, [1993,eng] 48-4349
Ice control in northern harbors. Saeki, H., [1992,eng] 48-1534
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Numerical simulation of pack ice movement using the momentum conservation method. Rheem, C.K., et al, [1993,jpn] 48-1052
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] 48-1556
Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] 48-171
Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] 48-3157
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] 48-3774
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Regional current measurements in the western Weddell Sea. Muench, R.D., et al, [1992,eng] 48-3776
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775

Paints

See [also]: Protective coatings

Pakistan

—Himalaya Mountains

Ablation on debris covered glaciers in Punjab. Mattson, L.E., et al, [1993,eng] 48-2793

—Karakoram Mountains

Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] 48-2791
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664

Paleobotany

Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] 48-2720
East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] 48-3294
Geographical analysis of the flora in the Cherek Bezengiiskii River basin (Central Caucasus). Part I. Portenier, N.N., [1993,rus] 48-4275
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094
Holocene periglacial processes in Inner Mongolia. Cui, Z.J., et al, [1992,chi] 48-2012
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Information content of paleobotanical material from eastern Taymyr. Kozhevnikov, IU.P., et al, [1993,rus] 48-1640
Late glacial climatic change in British Columbia. Mathewes, R.W., [1985,eng] 48-2726
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Viable microorganisms in permafrost. Gilichinskiĭ, D.A., [1993,eng] 48-881

Paleoclimatology

1550-1620: a period of summer accumulation in the Queen Elizabeth Islands. Alt, B.T., [1985,eng] 48-2729
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] 48-4643
Air content of ice deposits near Vostok Station. Lipenkov, V.IA., et al, [1993,rus] 48-3567
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] 48-2386
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] 48-2016
Ancient climate from deuterium content of water in volcanic glass. Friedman, I., et al, [1993,eng] 48-1500
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] 48-1140
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Australian snowfields past and present. Galloway, R.W., [1986,eng] 48-203

Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] 48-1424
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Cenozoic glacial history of Antarctica—A correlative synthesis. Moriwaki, K., et al, [1992,eng] 48-921
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations. Cooper, A.K., et al, [1993,eng] 48-3291
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Chill warnings from Greenland. Nielsen, R.H., [1993,eng] 48-1891
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059
Climate change in continental isotopic records. Swart, P.K., ed, et al, [1993,eng] 48-1494
Climate history of the last 150,000 years from Greenland ice cores. Moore, J.C., [1994,eng] 48-5569
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] 48-2720
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes. Webb, T., III, et al, [1993,eng] 48-2978
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] 48-3326
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] 48-5319
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] 48-1233
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] 48-4568
Cryogenesis and paleocryogenesis in soils of Mongolia. Maksimovich, S.V., [1993,eng] 48-2278
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] 48-4990
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing. Guo, X.D., et al, [1993,chi] 48-4590
Duration of navigation without icebreakers on the Northern Sea Route. Buzuev, A.IA., [1994,eng] 48-5572
Dynamic former ice sheets. Dowdeswell, J.A., [1990,eng] 48-1502
Early Pliocene climate and ice-sheet modeling. Prentice, M.L., et al, [1992,eng] 48-2617
Earth's glacial record. Deynoux, M., ed, [1994,eng] 48-5037
East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] 48-3294
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] 48-947
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] 48-952
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] 48-878
End of the ice age. Nisbet, E.G., [1990,eng] 48-1747
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] 48-3290
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] 48-3575
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Formation and distribution of the sorted circles at the head area of Urumqi River. Liu, G.N., et al, [1993,chi] 48-4576
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,chi] 48-4489
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,eng] 48-5265
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] 48-5226
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany. Wang, C., et al, [1993,eng] 48-1720
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632
Glacial ice cores: a window on the past. Saunders, A., et al, [1990,eng] 48-1877
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley. Patzelt, G., [1977,ger] 48-3313
Glaciological basis of ice-core drilling on mid-latitude glaciers. Haeberli, W., [1994,eng] 48-2711
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] 48-2618
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Greenhouse gases, isotopes and trace elements in glaciers as climatic evidence of the Holocene. Haeberli, W., ed, et al, [1994,eng] 48-2710
Greenland ice core methanesulfonate records. Hansson, M.E., et al, [1993,eng] 48-619
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] 48-2131
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskii, M., et al, [1994,eng] 48-5370
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Holocene marine coastal evolution of the United States. Fairbridge, R.W., [1992,eng] 48-1924
Holocene periglacial processes in Inner Mongolia. Cui, Z.J., et al, [1992,chi] 48-2012
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Ice core drilling in central Greenland. Moore, J.C., [1993,eng] 48-3322
Ice dynamics and climatic studies on Himalayan glaciers. Nijampurkar, V.N., et al, [1993,eng] 48-2799
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] 48-3261
Ice management in high latitude scientific ocean drilling. Rabinowitz, P.D., et al, [1994,eng] 48-3987
Ice masses on the move. Sutherland, D.G., [1990,eng] 48-1504
Ice records of the past environment. Delmas, R.J., [1994,eng] 48-5308
Ice wedges in northeastern China. Tong, B.L., [1993,eng] 48-466
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496
Interpreting past climate from stable isotopes in continental organic matter. Edwards, T.W.D., [1993,eng] 48-1501
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] 48-1497
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Krypton-81 dating in polar ice samples. Willis, R.D., [1990,eng] 48-4906
Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] 48-3529
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] 48-2095
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Late glacial climatic change in British Columbia. Mathewes, R.W., [1985,eng] 48-2726
Late glacial ice margins and deglacial chronology for southeastern Baffin Island and Hudson Strait, eastern Canadian Arctic: discussion and reply. England, J., et al, [1993,eng] 48-2209
Late Neogene antarctic glacial history: evidence from central Wright Valley. Prentice, M.L., et al, [1993,eng] 48-3293
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] 48-1657
Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange. Crowley, T.J., et al, [1988,eng] 48-1658
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] 48-2015
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] 48-3424
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] 48-1007
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina. Trombotto, D., et al, [1993,eng] 48-5240
Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] 48-5571
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] 48-635
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] 48-5412
Minor expansion of alpine glaciers in Wright Valley, Antarctica. Hall, B.L., et al, [1992,eng] 48-2625
Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] 48-369
Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] 48-2624
Natural artefact in Greenland ice-core CO_2 measurements. Delmas, R.J., [1993,eng] 48-1379
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] 48-5047
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] 48-4204
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] 48-2566
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Numerical simulation of the ice age climate. Wang, H.J., et al, [1993,eng] 48-3221
Numerical study on the response of the antarctic ice sheet to changes of environmental conditions. Huybrechts, P., [1993,eng] 48-2140
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] 48-2728
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] 48-3537
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] 48-1861
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] 48-2879
Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] 48-5230
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498
Paleoclimate/ice sheet dynamics from antarctic ice cores. Waddington, E.D., et al, [1993,eng] 48-4201
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499

Paleovariations of atmospheric composition in ancient ice core air bubbles. Semiletov, I.P., [1993,rus] 48-3566
Palsa formation in the Daisetsu Mountains, Japan. Sone, T., et al, [1993,eng] 48-5238
Periglacial period and Pleistocene natural environment of Western Mountains of Beijing. Guo, X.D., [1993,eng] 48-5208
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] 48-4394
Permafrost formation time. Lunardini, V.J., [1993,eng] 48-428
Permo-Carboniferous glaciation in the Transantarctic Mountains. Woolfe, K.J., [1994,eng] 48-3040
Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] 48-1506
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] 48-1817
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology. Xu, Q.Q., [1993,chi] 48-4572
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] 48-3310
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-5180
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] 48-1923
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province. Li, S.J., et al, [1992,chi] 48-2011
Quaternary glaciations in the Altai Mountains of China. Cui, Z.J., et al, [1992,chi] 48-2014
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Recent discovery of periglacial phenomena in Inner Mongolia. Wang, Z.Y., et al, [1993,eng] 48-5249
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] 48-5183
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] 48-3709
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] 48-2714
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
Sensitivity of the ice-divide position in Greenland to climate change. Anandakrishnan, S., et al, [1994,eng] 48-4444
Significant breakthrough in land-based record of ice age climates. Li, P.J., [1993,chi] 48-4583
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] 48-3550
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] 48-5040
Soil formation and environmental changes in China's loess. Ohmori, H., et al, [1990,jpn] 48-3425
Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] 48-920
Special problems of mid-latitude glacier ice-core research. Wagenbach, D., [1994,eng] 48-2712
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] 48-5210
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
United States Antarctic Program. Science Program Plan 1991-92. U.S. National Science Foundation, [1991,eng] 48-3822
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656
Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] 48-4758
Workshop on ice core records of global bio- and geochemical cycles. Qin, D.H., [1993,chi] 48-4571
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

Paleoecology
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Baffin Island fjord macrobenthos: bottom communities and environmental significance. Syvitski, J.P.M., et al, [1989,eng] 48-3430
Cenozoic sedimentary and climatic record, Ross Sea region. Hambrey, M.J., et al, [1993,eng] 48-3292
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560
East Antarctic Neogene sediments and ice sheet evolution. Quilty, P.G., [1993,eng] 48-3294
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Interpreting past climate from stable isotopes in continental organic matter. Edwards, T.W.D., [1993,eng] 48-1501
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskiĭ, D.A., et al, [1993,eng] 48-518
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] 48-3295
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] 48-3709
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Viable microorganisms in permafrost. Gilichinskiĭ, D.A., [1993,eng] 48-881

Paleomagnetism
Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra. Faustov, S.S., et al, [1993,rus] 48-3743

Palsen
See [also]: Frost mounds

Paludification
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279

Palynology
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] 48-503
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Information content of paleobotanical material from eastern Taymyr. Kozhevnikov, IU.P., et al, [1993,rus] 48-1640
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] 48-2566
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
See [also]: Pollen

Panel heating
See [also]: Radiant heating

Panels
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299
See [also]: Large panel buildings

Papua New Guinea
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] 48-3310

Particle collision
See [also]: Ice crystal collision

Particle size distribution
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] 48-2386
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] 48-230
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] 48-229
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] 48-1338
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] 48-2843
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Measurements of drifting snow particles. Kimura, T., [1991,jpn] 48-3422
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Modification of physical properties of natural obscurants. Hogan, A.W., [1993,eng] 48-3032
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] 48-2493
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] 48-2738
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470

Particles
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] **48-2380**
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles. Il'in, S.D., et al, [1993,rus] **48-2495**
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] **48-2474**
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] **48-2449**
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] **48-188**
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] **48-2107**
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] **48-3788**
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] **48-1366**
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] **48-4019**
Size distributions of bergy bits and growlers calved from deteriorating icebergs. Crocker, G.B., [1993,eng] **48-2738**
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] **48-3789**
See [also]: Aerosols

Patagonia
Firn-core study from the southern Patagonia ice cap, South America. Aristarain, A.J., et al, [1993,eng] **48-2388**
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] **48-2417**
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] **48-3600**

Patterned ground
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,chi] **48-4396**
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,eng] **48-5221**
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] **48-434**
Formation and distribution of the sorted circles at the head area of Urumqi River. Liu, G.N., et al, [1993,chi] **48-4576**
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] **48-2498**
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] **48-5190**
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] **48-300**
Sorted circles in an empty cirque at the head of the Urumqi River. Xiong, H.G., et al, [1993,eng] **48-5253**
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] **48-4826**
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] **48-1222**
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] **48-3782**
See [also]: Polygonal topography

Pavement bases
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] **48-368**
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] **48-380**
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] **48-4663**
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] **48-2112**

Pavement heaving
See [also]: Frost heave

Pavement icing
See [also]: Road icing

Pavements
Application of in-situ surface recycling methods in cold areas. Kikukawa, S., et al, [1993,eng] **48-5072**
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] **48-2413**
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] **48-4917**
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] **48-436**
Classification of distress of asphalt pavements. Nishizawa, T., et al, [1993,eng] **48-5078**
Cold hand patching materials. Outcalt, W., [1993,eng] **48-3282**
Development of stone mastic asphalt mixes for Ontario use. Emery, J., et al, [1993,eng] **48-5086**
Effect of highway geometry on distress of asphalt pavements in cold climates. Abd El Halim, A.O., et al, [1993,eng] **48-5079**
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] **48-4919**
Evaluation of a major concrete pavement rehabilitation and overlay project in Ontario. Kazmierowski, T.J., et al, [1993,eng] **48-5081**
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] **48-5077**
Evaluation of pavement layer moduli for an insulated pavement using a three-dimensional non-linear finite element analysis. Kestler, M.A., et al, [1994,eng] **48-3369**
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] **48-5085**
Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] **48-4897**
Improving winter pavement performance. Darling, M., et al, [1993,eng] **48-2328**
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] **48-1468**
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] **48-5188**
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] **48-5071**
Low temperature properties of asphalts and asphaltic mixtures. Moriyoshi, A., et al, [1993,eng] **48-5089**
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] **48-4580**
New sensor can reduce highway deicer use.[1994,eng] **48-4255**
NYTEMP user's manual: a pavement temperature model. Chen, H.J., [1993,eng] **48-1839**
Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] **48-5067**
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] **48-4910**
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] **48-472**
Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] **48-4916**
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] **48-4913**
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] **48-5070**
Performance of in-situ hot mix recycling as a maintenance technique in Ontario. Marks, P., et al, [1993,eng] **48-5073**
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids. Yuge, F., et al, [1993,eng] **48-5068**
Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] **48-5066**
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] **48-4908**
Rapid pothole repairs during adverse weather conditions: field evaluation. Joseph, P., et al, [1993,eng] **48-5092**
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] **48-5076**
Rheological properties of regular and polymer modified asphalts. Gagnon, P.F., et al, [1993,eng] **48-5090**
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] **48-5088**
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] **48-4911**
Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] **48-5080**
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] **48-4957**
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] **48-4909**
Stabilized recycled plastics as high performance asphalt binder modifiers. Liang, Z.Z., et al, [1993,eng] **48-5075**
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] **48-4912**
Study on the application of surface recycling methods. Nakanishi, T., et al, [1993,eng] **48-5074**
Study on the evaluation methods for the strength of pavement materials. Kiriyama, T., et al, [1993,eng] **48-5091**
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] **48-4918**
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] **48-1171**
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] **48-720**
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] **48-5069**
User's guide: subsurface drainage for military pavements. Grogan, W.P., [1992,eng] **48-4751**
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] **48-2088**
Winter maintenance on porous asphalt. Noort, M., [1991,eng] **48-3070**
Winter road repair in snowy and cold regions. Atochi, S., [1988,jpn] **48-571**
See [also]: Concrete pavements

Peat
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] **48-3501**
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] **48-4605**
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] **48-4608**
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] **48-943**
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] **48-4612**
Effect of lowered water table on nitrous oxide fluxes from northern peatlands. Martikainen, P.J., et al, [1993,eng] **48-1121**
Fast preparation and more accurate utilization of the peat production area. Leiviskä, V., [1991,fin] **48-3678**
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] **48-4606**
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] **48-501**
Humus accumulation and soil formation in Svalbard. Låg, J., [1993,eng] **48-2303**
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] **48-5053**
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] **48-3785**
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] **48-4994**
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] **48-4604**
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] **48-2547**
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] **48-210**
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia. Grishkan, I.B., et al, [1993,eng] **48-2301**
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] **48-5126**
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] **48-4601**
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] **48-3798**
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] **48-1219**
Palsa formation in the Daisetsu Mountains, Japan. Sone, T., et al, [1993,eng] **48-5238**
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] **48-211**
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] **48-3564**
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991,ger] **48-3658**
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] **48-4603**
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] **48-2291**
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] **48-3563**
Soil formation and environmental changes in China's loess. Ohmori, H., et al, [1990,jpn] **48-3425**
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] **48-1521**

Peatbog ice
See [also]: Ground ice

Pedogenesis
See [also]: Soil formation

Pedology
See [also]: Soil science

Pellets
See [also]: Snow pellets

Penetration
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] **48-2110**
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] **48-4815**
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] **48-4816**
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] **48-1223**
See [also]: Projectile penetration

Penetration tests
Determining strength of frozen soil with radial-split method. Shen, Z.Y., et al, [1992,chi] **48-1418**
Laboratory indentation tests with thick freshwater ice. Volume I. Muhonen, A., et al, [1992,eng] **48-3700**
Primary research of determining strength of frozen soil with axial-split method. Shen, Z.Y., et al, [1993,chi] **48-1446**
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] **48-4909**
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] **48-1539**
Theoretical model for ice-structure interaction. Sodhi, D.S., [1994,eng] **48-5619**

Pennine Alps
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps). Todaro, C., [1993,ita] **48-4114**

Perennially frozen ground
See [also]: Permafrost

Performance
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] **48-4819**
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] **48-2546**
5 years operational experience with the Swedish icebreaker *Oden*. Backman, A., [1994,eng] **48-4306**
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] **48-2885**
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] **48-1795**

Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] **48-5027**
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] **48-2504**
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] **48-4133**
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] **48-3598**
BAS hot water drill: development and current design. Makinson, K., [1993,eng] **48-2739**
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] **48-2632**
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] **48-3825**
Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] **48-2872**
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] **48-3783**
Dew and frost formation on the condensation dewpoint hygrometer. Pragnell, R.F., [1993,eng] **48-1895**
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] **48-5177**
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] **48-454**
Efficiency of using non-traditional hull lines for icebreakers. Ierusalimskii, A.V., et al, [1994,eng] **48-4307**
Empirical review of the design and performance of icebreakers. Dick, R.A., et al, [1989,eng] **48-3747**
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] **48-4035**
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] **48-4296**
Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] **48-3198**
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] **48-2843**
Fifteen years of arctic shipping—the lessons learned. Luce, M.P., et al, [1994,eng] **48-4309**
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] **48-1547**
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] **48-4294**
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] **48-2387**
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] **48-3828**
Ice technology—advancing slowly.[1992,eng] **48-3224**
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] **48-4302**
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] **48-3752**
Icebreaker for North West Passage—a designer's perspective. Keinonen, A., [1994,eng] **48-4311**
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] **48-4297**
Icebreaking ship. Jans, P., et al, [1993,eng] **48-1734**
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] **48-4289**
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] **48-2855**
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] **48-2506**
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] **48-2612**
'Kapitan Sorokin',[1992,eng] **48-3225**
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] **48-2427**
Master mariner's perspective on the performance of icebreakers. Toomey, P.R.M., [1994,eng] **48-4310**
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] **48-3199**
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] **48-403**
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] **48-464**
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] **48-2377**
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] **48-2084**
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] **48-4298**
MSV Fennica, a novel icebreaker concept. Lohi, P., et al, [1994,eng] **48-4301**
MSV Fennica, new operational profile for an icebreaker. Harjula, A., et al, [1994,eng] **48-4305**
Multipurpose cycloconverter icebreaker ordered from new Finnyards consortium.[1992,eng] **48-3227**
New generation Arktika class nuclear icebreaker feasibility study. Tsoi, L.G., [1994,eng] **48-4304**
Operational performance of the RV *Nathaniel B. Palmer*. Schultz, L.A., et al, [1994,eng] **48-4308**
Permafrost surveys in western Siberia. Burn, R.A., et al, [1993,eng] **48-361**
Radioluminescent lights score high in VFR night air taxi tests. Jensen, G.A., et al, [1987,eng] **48-4134**
Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] **48-4300**
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] **48-3010**
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] **48-1356**
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] **48-2116**
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] **48-1603**
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] **48-2500**
Snow surface temperature measurements by infrared scanner. Moritz, E., [1986,ger] **48-618**
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] **48-2600**
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] **48-2363**
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] **48-1357**
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1992,eng] **48-2806**
Towards a permafrost information and data system. Barry, R.G., et al, [1993,eng] **48-353**
Transient response model of low-speed diesel engine in ice-breaking cargo vessels. Larmi, M., [1993,eng] **48-3647**
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] **48-1300**
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] **48-4607**
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] **48-3815**

See [also]: Cold weather performance

Periglacial processes

Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] **48-2207**
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] **48-392**
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] **48-2104**
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] **48-2016**
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] **48-1424**
Boulder clusters in glacial flutes. Rose, J., [1992,eng] **48-2519**
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] **48-3216**
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] **48-2571**
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] **48-5052**
Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia. Leibman, M.O., [1994,eng] **48-3408**
Cryogenic processes and phenomena in Mongolia. Lomborinchen, R., [1993,eng] **48-426**
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] **48-634**
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] **48-2701**
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] **48-2561**
Denudation rate by gelifraction in Tian Shan. Liu, G.N., et al, [1992,chi] **48-2013**
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] **48-5050**
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing. Guo, X.D., et al, [1993,chi] **48-4590**
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] **48-354**
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] **48-1014**
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] **48-2520**
Formation and distribution of the sorted circles at the head area of Urumqi River. Liu, G.N., et al, [1993,chi] **48-4576**
Fossil ice and periglacial structure in Chinese mountain soils. Zhu, J.H., et al, [1993,eng] **48-508**
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,chi] **48-4489**
Fossil periglacial landforms in the Shennongjia Mountains, China. Zhou, Z.M., [1993,eng] **48-5265**
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] **48-476**
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] **48-2563**
Frost weathering at the Great Wall Station. Xiong, H.G., et al, [1992,eng] **48-77**
Frozen ground database system for the Qinghai-Xizang Plateau. Xia, Z.Y., [1992,chi] **48-1489**
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] **48-423**
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] **48-2542**
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] **48-2010**
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] **48-3486**
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] **48-1386**
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] **48-2144**
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] **48-5162**
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake. Qiu, G.Q., et al, [1993,eng] **48-2134**
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] **48-2131**
Holocene periglacial processes in Inner Mongolia. Cui, Z.J., et al, [1992,chi] **48-2012**
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] **48-5053**
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] **48-419**
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] **48-3044**
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] **48-4260**
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] **48-385**
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] **48-458**
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] **48-2883**
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina. Trombotto, D., et al, [1993,eng] **48-5240**
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] **48-2522**
Loess and its climate records in Kunlun Shan region since the late Pleistocene. Zhao, X.F., et al, [1993,eng] **48-504**
Mass movement in the Great Wall Station area, Antarctica. Zhu, C., et al, [1992,eng] **48-78**
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] **48-4269**
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] **48-2020**
Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] **48-369**
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] **48-3034**
Mountain permafrost in Europe. King, L., et al, [1993,eng] **48-5186**
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] **48-5047**
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] **48-300**
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] **48-3651**
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] **48-3507**
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] **48-2565**
Periglacial geomorphology in the 21st century. Barsch, D., [1993,eng] **48-4941**
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] **48-507**
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] **48-5202**
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] **48-4487**
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] **48-5022**
Periglacial period and Pleistocene natural environment of Western Mountains of Beijing. Guo, X.D., [1993,eng] **48-5208**
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] **48-469**
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] **48-4394**
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] **48-5223**
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] **48-4128**
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] **48-356**
Permafrost in the mountain ranges of North America. Harris, S.A., et al, [1993,eng] **48-5185**
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] **48-1515**
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] **48-5290**
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] **48-4996**
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] **48-2570**
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-348**
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-5180**
Properties of calcitic pendents from Spitsbergen. County, M.A., et al, [1994,eng] **48-3220**
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] **48-3649**
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] **48-3934**

Recent discovery of periglacial phenomena in Inner Mongolia. Wang, Z.Y., et al, [1993,eng] 48-5249
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Research on permafrost and periglacial processes in mountain areas—status and perspectives. Haeberli, W., [1993,eng] 48-5184
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] 48-4101
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48 3648
Rock moisture data from Livingston I. Hall, K., [199-,eng] 48-5051
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] 48-446
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388
Sorted circles in an empty cirque at the head of the Urumqi River. Xiong, H.G., et al, [1993,eng] 48-5253
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
Studies on mountain permafrost in Asia. Qiu, G.Q., [1993,eng] 48-5187
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105
See [also]: Glacial deposits

Periodic variations

1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] 48-287
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Austrian alpine glacier measurements 1990. Patzelt, G., [1991,ger] 48-3662
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] 48-4654
Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] 48-4702
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] 48-3588
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] 48-3584
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] 48-2394
Climate of the last 500 years: high resolution ice core records. Mosley-Thompson, E., et al, [1993,eng] 48-4701
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] 48-4113
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps). Todaro, C., [1993,ita] 48-4114
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
CO_2 and glacial cycles. Saltzman, B., et al, [1994,eng] 48-2912
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] 48-1311
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] 48-1233
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] 48-4110
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] 48-1791
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
Dangers of multiyear averaging in analyses of long-term climate trends. Parkinson, C.L., [1989,eng] 48-2362
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] 48-1792
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] 48-2458
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Finland lake ice observations—19th and 20th century. Kuusisto, E., [1993,eng] 48-1793
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] 48-1797
Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] 48-2572
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Glacier mass balance measurements—a manual for field and office work. Østrem, G., et al, [1969,eng] 48-2917
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Glacier variations 1930-1960, 1960-1990 and 1989-1990. Sigurdsson, O., [1991,ice] 48-5293
Glacier variations 1930-1960, 1960-1990 and 1990-1991. Sigurdsson, O., [1992,ice] 48-5316
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] 48-4485
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] 48-190
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Global warming on trial. Broecker, W.S., [1992,eng] 48-1611
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] 48-2035
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] 48-2813
Ice masses on the move. Sutherland, D.G., [1990,eng] 48-1504
Ice-core-based record of biomass burning in the Arctic and Subarctic, 1750-1980. Whitlow, S., et al, [1994,eng] 48-5156
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-365?
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] 48-4108
Jökulhlaup records 1984-1988. Sigurdsson, O., et al, [1992,ice] 48-5315
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] 48-1657
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Loess and its climate records in Kunlun Shan region since the late Pleistocene. Zhao, X.F., et al, [1993,eng] 48-504
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] 48-4104
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] 48-3509
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Major glacier surge continues. Molnia, B.F., [1993,eng] 48-2159
Mass and heat balance of Omnsbreen—a climatically dead glacier in southern Norway. Messel, S., [1971,eng] 48-2888
Mass balance measurements on Ice Stream B, Antarctica. Bindschadler, R.A., et al, [1993,eng] 48-3573
Mass balance of Sarennes Glacier, France, 1989-90. Valla, F., [1993,fre] 48-4115
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] 48-612
Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] 48-5298
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Modelling Holocene Snow avalanche activity. McCarroll, D., [1993,eng] 48-3009
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] 48-4195
Monitoring lake freeze-up/break-up as a climate index. Barry, R.G., et al, [1993,eng] 48-1794
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] 48-1788
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] 48-4103
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686

Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] 48-1789
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] 48-2417
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] 48-4948
Periodic temperature inversions in the arctic troposphere. Nagurnyi, A.P., et al, [1993,eng] 48-1825
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] 48-1317
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] 48-5119
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] 48-4105
Present evolution of the Greenland ice sheet: an assessment by modelling. Huybrechts, P., [1994,eng] 48-3515
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] 48-1314
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Recent research on the Calderone glacier, Abruzzo, Italy. Gellatly, A.F., et al, [1993,ita] 48-4102
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] 48-620
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Record low total ozone during northern winters of 1992 and 1993. Bojkov, R.D., et al, [1993,eng] 48-301
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Reports on the Glaciological Survey of 1991. Armando, E., et al, [1993,ita] 48-4117
Response of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] 48-1476
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Sarennes—a closely monitored glacier, Massif de l'Oisans, France. Valla, F., [1993,fre] 48-3139
Schwarzmilzferner glacier in the Allgäuer Alps. Mader, R., [1991,ger] 48-3657
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] 48-5418
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V. et al, [1994,eng] 48-3502
Short- and long-term variability of snow anoedo. Winther, J.G., [1993,eng] 48-1158
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] 48-2347
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow avalanches in Iceland during winter 1989-1990. Magnusson, M.M., [1992,ice] 48-5317
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] 48-616
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] 48-1799
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera. D'iakonov, K.N., et al, [1993,rus] 48-3740
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] 48-5442
Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] 48-1539
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Study of ozone anomalies over the Molodezhnaya Station in the spring of 1990. Butko, A.I., et al, [1992,eng] 48-1243
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023
Surveys of the Pasterze Glacier, 1971-1990. Wakonigg, H., [1991,ger] 48-3663
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] 48-2545
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] 48-1790
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Trace elements in basal ice at Dye-3. Olmez, I., et al, [1993,eng] 48-3905
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] 48-191
Twenty-five years of mass balance of the Careser Glacier (central Alps), 1966-67/1990-91. Zanon, G., [1993,ita] 48-4116
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] 48-2203
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
World sea level and the present mass balance of the antarctic ice sheet. Paterson, W.S.B., [1993,eng] 48-4185
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543

Permafrost

About an assessment of factors in railway bed stability in the permafrost zone. Garagulia, L.S., et al, [1994,eng] 48-3399
Agricultural melioration and cryoecology in permafrost conditions. Gavril'ev, P.P., [1992,rus] 48-4790
Bibliography of the glaciology and geocryology in China and its adjacent districts (1983-1990). Lanzhou Institute of Glaciology and Geocryology, [1991,eng] 48-1424
Cryogenesis and paleocryogenesis in soils of Mongolia. Maksimovich, S.V., [1993,eng] 48-2278
Deformations of shoreline slopes of reservoirs in permafrost regions. Gogolev, E.S., [1992,rus] 48-4781
Delta^{13}C-analysis of permafrost soil samples of NE- Siberia. Pfeiffer, E.M., et al, [1993,eng] 48-2304
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] 48-3405
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Future climate changes and permafrost. Gavrilova, M.K., [1992,rus] 48-4774
Highwall stability in strip mines in permafrost. Vakili, J., [1994,eng] 48-3392
Multi-lingual index of permafrost terms. Van Everdingen, R.O., [1993,eng] 48-470
New techniques in studying humic substances in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2305
Permafrost: a bibliography, 1978-1982. Brennan, A.M., [1983,eng] 48-2986
Planned industrial regions in the Amur taiga zone. Rianskiĭ, F.N., [1989,rus] 48-902
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] 48-3406
Redoximorphic features in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2296
Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost. Cheng, G.D., et al, [1993,chi] 48-4569
State Key Laboratory of Frozen Soil Engineering, 1993. Lanzhou Institute of Glaciology and Geocryology, [1993,chi] 48-2130
Thermophysical conditions of frozen soils with regard to their sagging after thawing. Gavril'ev, R.I., [1992,rus] 48-4803

See [also]: Continuous permafrost; Discontinuous permafrost; Sporadic permafrost; Subsea permafrost

Permafrost bases

Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] 48-368
Application of thermalpile to culvert engineering in permafrost region. Ding, J.K., et al, [1993,eng] 48-375
Basic considerations for the structural designer of buildings located in cold regions. Berretti, M.R., [1994,eng] 48-3348
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] 48-436
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] 48-4169
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Compilation of geotechnical information from the short range radar sites into a public domain database. Biggar, K.W., et al, [1994,eng] 48-3389
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Design and construction of short range radar stations in the Canadian Arctic. Sanderson, K.J., [1994,eng] 48-3350
Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] 48-460
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-371
Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] 48-409
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] 48-494
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] 48-534
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468
Plastic frozen (saline) soil as bases. Aksenov, V.I., et al, [1993,eng] 48-349
Rational methods of building foundations in the southern part of the cryolithozone. Mirenburg, I.U.S., et al, [1992,rus] 48-4804
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
Software for permafrost seepage calculations beneath earth dams. Bituirin, A.K., et al, [1994,eng] 48-4806
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438
Use of fresh concrete for piles in permafrost. Senneset, K., et al, [1994,eng] 48-3352
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] 48-2214
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] 48-1104

Permafrost beneath buildings
See [also]: Permafrost beneath structures
Permafrost beneath lakes
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] **48-529**
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] **48-4128**
Permafrost beneath oceans
See [also]: Subsea permafrost
Permafrost beneath roads
Challenges within oil and gas exploration and production in arctic regions. Usterud, O., et al, [1994,eng] **48-5562**
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway. Wang, S.L., et al, [1993,chi] **48-4589**
Construction of highways and airports on permafrost. Davydov, V.A., [1993,rus] **48-1523**
Culvert engineering in the permafrost region of Qinghai- Xizang Plateau. Zhang, J.Z., et al, [1993,chi] **48-4502**
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,eng] **48-5261**
Engineering geological survey and distribution of permafrost along Qingkang Highway. Zhu, L.N., et al, [1993,chi] **48-1454**
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] **48-5188**
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,chi] **48-4503**
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] **48-5201**
Permafrost change for asphalt pavement along Qinghai-Xizang highway. Wang, S.L., et al, [1993,eng] **48-5245**
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] **48-4393**
Railway construction and environmental protection in permafrost. Zheng, Q.P., [1993,eng] **48-5263**
Repair of pavement distress in permafrost. Luo, W.Q., [1993,chi] **48-4504**
Road design and renovations of the north slope in Da Hinggan Ling. Luo, W.Q., [1993,eng] **48-5227**
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] **48-5256**
Permafrost beneath structures
Arctic and subarctic construction foundations for structures.[1983,eng] **48-762**
Arctic and subarctic construction: utilities.[1987,eng] **48-1141**
Basic considerations for the structural designer of buildings located in cold regions. Beretti, M.R., [1994,eng] **48-3348**
Building construction on permafrost foundations. Goncharov, IU.M., [1993,eng] **48-519**
Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] **48-462**
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] **48-439**
Change in the concept of foundation building in the cryolithozone in connection with climate warming. Rastegaev, I.K., [1992,rus] **48-4778**
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] **48-4169**
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] **48-3347**
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] **48-803**
Construction of highways and airports on permafrost. Davydov, V.A., [1993,rus] **48-1523**
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] **48-1102**
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] **48-1264**
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] **48-1103**
Distinguishing features of pipeline construction in arctic regions. Kharionovskii, V.V., [1994,eng] **48-3990**
Drilling characteristics of engineering geology of permafrost on Da Hinggan Ling region. Zou, X.Q., [1993,eng] **48-5267**
Ecological and geocryological classification of western Siberia. Chekhovskii, A.L., et al, [1993,eng] **48-5194**
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] **48-2351**
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] **48-883**
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] **48-1492**
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] **48-1493**
Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] **48-1490**
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] **48-1491**
Ensuring and ecological safety of the gas pipelines operating in the permafrost zone. Antonov-Druzhinin, V.P., [1993,eng] **48-5192**
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] **48-3975**
Frost heave damage to buildings and water pipelines in permafrost. Jiao, T.B., [1993,chi] **48-4507**
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] **48-427**
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] **48-1453**
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] **48-536**
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] **48-1756**
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] **48-4839**
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] **48-5530**
Influence of frost heave on pile stability. Liu, H.X., [1993,eng] **48-424**
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] **48-3372**
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] **48-5531**
Long-term shear strength of frost-thaw transit zone. Ding, J.K., et al, [1993,eng] **48-5203**
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] **48-4135**
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska. Haynes, F.D., et al, [1994,eng] **48-5409**
Optimal thermal regime of pipeline gas transportation in permafrost zone. Antonov-Druzhinin, V.P., [1994,eng] **48-3989**
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] **48-429**
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] **48-534**
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] **48-3397**
Permafrost along the Yamal Peninsula gas pipeline. Baulin, V.V., et al, [1993,eng] **48-5193**
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia. McKeown, S., et al, [1994,eng] **48-3388**
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] **48-4493**
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] **48-5228**
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] **48-5218**
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-348**
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-5180**
Reducing frost mounds under foundations by lowering the water table. Liu, S.F., et al, [1993,chi] **48-4495**
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] **48-5225**
Selection of sanitation alternatives: a strategy for remote Alaskan communities. Olofsson, J.A., et al, [1994,eng] **48-3383**
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] **48-4494**
Shallow cover design and construction technology of building foundations in Daqing region. Jiang, H.J., et al, [1993,eng] **48-5217**
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] **48-467**
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] **48-4806**
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] **48-516**
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] **48-860**
Thermosyphon condensate return device. DenHartog, S.L., et al, [1990,eng] **48-2261**
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] **48-357**
Towards rational deformation limit states for buried pipelines. Zhou, Z.L., et al, [1993,eng] **48-4313**
Trans-Alaska Pipeline Research Program. Progress report 77-A. Crory, F.E., [1976,eng] **48-3427**
Trans-Alaska Pipeline Research Program. Progress report 77-B. Austin, M.A., [1977,eng] **48-3428**
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] **48-1104**
Permafrost control
See [also]: Permafrost preservation
Permafrost dating
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] **48-3611**
Permafrost depth
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway. Wang, S.L., et al, [1993,chi] **48-4589**
Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] **48-2505**
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] **48-425**
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] **48-2064**
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] **48-473**
Permafrost distribution
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] **48-3155**
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] **48-399**
Applications of data base technology in frozen soil research. Xia, Z.Y., [1993,eng] **48-5251**
Basic characteristics of the engineering-geocryological conditions of the highlands of inner Tian Shan. Chaus, A.K., [1990,rus] **48-1240**
Change of permafrost under roadbed with asphalt pavement along the Qinghai-Tibet Highway. Wang, S.L., et al, [1993,chi] **48-4589**
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] **48-3216**
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] **48-3761**
Circumarctic map of permafrost and ground ice conditions. Heginbottom, J.A., et al, [1993,eng] **48-5213**
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] **48-5034**
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] **48-503**
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] **48-2701**
Development condition of alpiue permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] **48-449**
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] **48-354**
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] **48-2103**
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] **48-1015**
Ecological and geocryological classification of western Siberia. Chekhovskii, A.L., et al, [1993,eng] **48-5194**
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] **48-5248**
Engineering geological survey and distribution of permafrost along Qingkang Highway. Zhu, L.N., et al, [1993,chi] **48-1454**
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] **48-1453**
Geocryology in Mt. Tianshan. Gorbunov, A.P., [1993,eng] **48-5206**
Geographic boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,chi] **48-4488**
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] **48-5226**
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] **48-2010**
Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] **48-374**
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] **48-2036**
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] **48-494**
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] **48-2131**
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] **48-5036**
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] **48-2497**
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] **48-2498**
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] **48-3195**
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] **48-877**
Mountain permafrost in Europe. King, L., et al, [1993,eng] **48-5186**
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] **48-455**
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] **48-5047**
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] **48-396**
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] **48-5306**
Palsa formation in the Daisetsu Mountains, Japan. Sone, T., et al, [1993,eng] **48-5238**
Periglacial geomorphology in the 21st century. Barsch, D., [1993,eng] **48-4941**
Permafrost along the Yamal Peninsula gas pipeline. Baulin, V.V., et al, [1993,eng] **48-5193**
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] **48-5181**
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] **48-5127**
Permafrost and climatic change: an annotated bibliography. Koster, E.A., et al, [1994,eng] **48-5434**
Permafrost and ground water in the Greater Khingan Range. Yuan, H.Y., et al, [1993,chi] **48-4490**
Permafrost and groundwater in the Greater Khingan Range. Yuan, H.Y., et al, [1993,eng] **48-5259**
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] **48-469**
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] **48-4394**
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] **48-5223**

Permafrost change for asphalt pavement along Qinghai-Xizang highway. Wang, S.L., et al, [1993,eng] 48-5245
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] 48-425
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] 48-356
Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] 48-515
Permafrost in the loess plateau of China and its relationship to the environment. Li, Z.F., [1993,eng] 48-884
Permafrost in the mountain ranges of North America. Harris, S.A., et al, [1993,eng] 48-5185
Permafrost in the Selenge River basin (on the Mongolian territory). Sharkhuu, A., [1993,eng] 48-5236
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] 48-5212
Permafrost studies in Greenland. Mai, H., et al, [1993,eng] 48-5214
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-5180
Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] 48-350
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] 48-5183
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] 48-5224
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Research on permafrost and periglacial processes in mountain areas—status and perspectives. Haeberli, W., [1993,eng] 48-5184
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730
Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] 48-5241
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Snow and permafrost in the Tian Shan Mountains. Hu, R.J., et al, [1993,eng] 48-5215
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] 48-446
Studies on mountain permafrost in Asia. Qiu, G.Q., [1993,eng] 48-5187
Terrestrial component of the cryosphere. Mel'nikov, P.A., et al, [1993,eng] 48-2705
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] 48-406
Winter testing for permafrost identification. Guglielmin, M., et al, [1993,ita] 48-1133

Permafrost forecasting
Applications of data base technology in frozen soil research. Xia, Z.Y., [1993,eng] 48-5251
Applications of data base technology in frozen soil research s. Xia, Z.Y., [1993,chi] 48-43 7
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water. Gotovtsev, S.P., et al, [1992,rus] 48-4783
Frozen ground database system for the Qinghai-Xizang Plateau. Xia, Z.Y., [1992,chi] 48-1489
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
Impact of a repository on permafrost development during glaciation advance. Vallander, P., et al, [1991,eng] 48-4761
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,chi] 48-4503
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] 48-5201
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] 48-5181
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] 48-5212
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393
Terrestrial component of the cryosphere. Mel'nikov, P.A., et al, [1993,eng] 48-2705
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Winter testing for permafrost identification. Guglielmin, M., et al, [1993,ita] 48-1133

Permafrost formation
See [also]: Permafrost origin

Permafrost heat balance
Borehole temperature equilibrium in permafrost. Wang, B.L., [1993,chi] 48-4585
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] 48-5181
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Snowmelt over permafrost area in the arctic Alaska. Kodama, Y., et al, [1990,eng] 48-4670
Terrestrial component of the cryosphere. Mel'nikov, P.A., et al, [1993,eng] 48-2705

Permafrost heat transfer
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] 48-878
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] 48-374
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] 48-464
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] 48-877
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] 48-5181
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] 48-3706
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] 48-860
Thermosyphon condensate return device. DenHartog, S.L., et al, [1990,eng] 48-2261
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247

Permafrost hydrology
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] 48-487
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
Mining impact on permafrost hydrology. Klimovskiĭ, I.V., et al, [1993,eng] 48-522
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Permafrost and ground water in the Greater Khingan Range. Yuan, H.Y., et al, [1993,chi] 48-4490
Permafrost and groundwater in the Greater Khingan Range. Yuan, H.Y., et al, [1993,eng] 48-5259
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] 48-355
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Simulation of hydrocarbon spills in permafrost. Corapcioglu, M.Y., et al, [1993,eng] 48-367
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] 48-410
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247

Permafrost indicators
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] 48-399
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] 48-503
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing. Guo, X.D., et al, [1993,chi] 48-4590
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] 48-4260
Ice wedges in northeastern China. Tong, B.L., [1993,eng] 48-466
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina. Trombotto, D., et al, [1993,eng] 48-5240
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] 48-633
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] 48-5047
On the study of nival deposits in Yakutia. Kunitskiĭ, V.V., [1993,eng] 48-524
Periglacial period and Pleistocene natural environment of Western Mountains of Beijing. Guo, X.D., [1993,eng] 48-5208
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] 48-4394
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] 48-5223
Permafrost in the loess plateau of China and its relationship to the environment. Li, Z.F., [1993,eng] 48-884
Permafrost in the north of Korean peninsula. An, V., [1993,eng] 48-511
Placement of cryosols in soil taxonomy. Arnold, R.W., et al, [1993,eng] 48-2273
Principles of the Canadian cryosol classification. Tarnocai, C., [1993,eng] 48-2274
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] 48-4395
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] 48-5224
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] 48-446
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471
Winter testing for permafrost identification. Guglielmin, M., et al, [1993,ita] 48-1133

Permafrost mass transfer
Analysis of permafrost solifluction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] 48-459
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] 48-391
Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] 48-444
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] 48-473

Permafrost origin
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] 48-3761
Effect of lake proximity on permafrost formation. Wu, Q.B., et al, [1993,eng] 48-485
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] 48-878

Forecasting the evolution of permafrost in an underground reservoir of highly mineralized water. Gotovtsev, S.P., et al, [1992,rus] 48-4783
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] 48-2131
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] 48-515
Permafrost formation time. Lunardini, V.J., [1993,eng] 48-428
Permafrost in the loess plateau of China and its relationship to the environment. Li, Z.F., [1993,eng] 48-884
Permafrost in the north of Korean peninsula. An, V., [1993,eng] 48-511

Permafrost physics

Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] 48-416
Borehole electrometry of permafrost zone. Snegirev, A.M., [1993,eng] 48-532
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] 48-3393
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] 48-395
Electromagnetic wave propagation in saline permafrost. Fedi-ukin, I.V., et al, [1993,eng] 48-381
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] 48-384
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365

Permafrost preservation

Application of thermalpile to culvert engineering in permafrost region. Ding, J.K., et al, [1993,eng] 48-375
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] 48-436
Delay of arctic shoreline erosion by artificial spray ice. Sackinger, W.M., et al, [1994,eng] 48-3974
Dissolution of cementing ice and gas hydrates in permafrost rocks. Mikhailov, V.A., [1994,eng] 48-3976
Distinguishing features of pipeline construction in arctic regions. Kharionovskii, V.V., [1994,eng] 48-3990
Ecological and geocryological classification of western Siberia. Chekhovskiĭ, A.L., et al, [1993,eng] 48-5194
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Ensuring and ecological safety of the gas pipelines operating in the permafrost zone. Antonov-Druzhinin, V.P., [1993,eng] 48-5192
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] 48-3975
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] 48-5242
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Optimal thermal regime of pipeline gas transportation in permafrost zone. Antonov-Druzhinin, V.P., [1994,eng] 48-3989
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Permafrost zone well cementing. Gridnev, S.M., et al, [1992,eng] 48-4073
Polartech '94. International Conference on Development and Commercial Utilization of Technologies in Polar Regions, 5th, Luleå, Sweden, Mar. 22-25, 1994, [1994,eng] 48-3945
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Railway construction and environmental protection in permafrost. Zheng, Q.P., [1993,eng] 48-5263
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] 48-527
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] 48-860
Thermosyphon condensate return device. DenHartog, S.L., et al, [1990,eng] 48-2261
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] 48-2214

Permafrost samplers

Ground temperature measurement at a permafrost site. Collins, C.M., et al, [1993,eng] 48-5199
Report on permafrost study at Isla Marambio (Seymour Island). Fukuda, M., et al, [1993,jpn] 48-2433

Permafrost structure

Borehole electrometry of permafrost zone. Snegirev, A.M., [1993,eng] 48-532
Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] 48-531
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskiĭ, D.A., et al, [1993,eng] 48-518
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] 48-364
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] 48-4128
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] 48-1515
Permafrost surveys in western Siberia. Burn, R.A., et al, [1993,eng] 48-361
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
Report on permafrost study at Isla Marambio (Seymour Island). Fukuda, M., et al, [1993,jpn] 48-2433
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] 48-533
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366

Permafrost surveys

Applications of data base technology in frozen soil research. Xia, Z.Y., [1993,eng] 48-5251
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] 48-3122
Borehole electrometry of permafrost zone. Snegirev, A.M., [1993,eng] 48-532
Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2. Mai, H.N., et al, [1994,eng] 48-3958
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] 48-3761
Circumarctic map of permafrost and ground ice conditions. Heginbottom, J.A., et al, [1993,eng] 48-5213
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] 48-402
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] 48-2701
Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] 48-493
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Drilling characteristics of engineering geology of permafrost in Da Hinggan Ling region. Qiu, X.Q., [1993,chi] 48-4509
Ecological and geocryological classification of western Siberia. Chekhovskii, A.L., et al, [1993,eng] 48-5194
Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] 48-2540
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Effects of gold mining on permafrost in Inner Mongolia. Wang, Y.X., et al, [1993,eng] 48-5248
Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] 48-430
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Frozen ground database system for the Qinghai-Xizang Plateau. Xia, Z.Y., [1992,chi] 48-1489
Gas pipeline Mastakh-Yakutsk and environment. Kamenskii, R.M., et al, [1993,eng] 48-409
Geocryology in Mt. Tianshan. Gorbunov, A.P., [1993,eng] 48-5206
Geographic boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,chi] 48-4488
Geographic southern boundary of permafrost in the northeast of China. Lu, G.W., et al, [1993,eng] 48-5226
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432
Geomorphological changes in arctic permafrost. King, L., [1993,eng] 48-413
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Geophysical methods of cryology ecological monitoring. Sedov, B.M., et al, [1993,eng] 48-5235
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] 48-374
Ground temperature measurement at a permafrost site. Collins, C.M., et al, [1993,eng] 48-5199
Guide book. Field trip A-2. Urumqi, Urumqi River Basin, Chaiwopu Basin, Turpan Basin, Tianchi Lake. Qiu, G.Q., et al, [1993,eng] 48-2134
Guide to the permafrost and environment of the Qinghai-Xizang Plateau. Guo, D.X., ed, et al, [1993,eng] 48-2131
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] 48-692
Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] 48-2505
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskii, D.A., et al, [1993,eng] 48-518
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
Mountain permafrost in Europe. King, L., et al, [1993,eng] 48-5186
New permafrost and ground ice map for the National Atlas of Canada. Heginbottom, J.A., et al, [1993,eng] 48-396
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306
On the study of nival deposits in Yakutia. Kunitskii, V.V., [1993,eng] 48-524
Palsa formation in the Daisetsu Mountains, Japan. Sone, T., et al, [1993,eng] 48-5238
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Permafrost along the Yamal Peninsula gas pipeline. Baulin, V.V., et al, [1993,eng] 48-5193
Permafrost and climatic change: an annotated bibliography. Koster, E.A., et al, [1994,eng] 48-5434
Permafrost and groundwater in the Greater Khingan Range. Yuan, H.Y., et al, [1993,eng] 48-5259
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] 48-469
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] 48-4394
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] 48-5223
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] 48-364
Permafrost change for asphalt pavement along Qinghai-Xizang highway. Wang, S.L., et al, [1993,eng] 48-5245
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] 48-4128
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] 48-425
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Permafrost in the loess plateau of China and its relationship to the environment. Li, Z.F., [1993,eng] 48-884
Permafrost in the mountain ranges of North America. Harris, S.A., et al, [1993,eng] 48-5185
Permafrost in the Selenge River basin (on the Mongolian territory). Sharkhuu, A., [1993,eng] 48-5236

Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] **48-418**
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] **48-5212**
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] **48-1515**
Permafrost studies in Greenland. Mai, H., et al, [1993,eng] **48-5214**
Permafrost surveys in western Siberia. Burn, R.A., et al, [1993,eng] **48-361**
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] **48-5232**
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] **48-387**
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] **48-2570**
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] **48-495**
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-348**
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-5180**
Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] **48-350**
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] **48-2064**
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] **48-5183**
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] **48-4395**
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] **48-5224**
Regularities of perennially frozen ground forming in southern Zabaikalie. Sal'nikov, P.I., [1993,eng] **48-530**
Report on permafrost study at Isla Marambio (Seymour Island). Fukuda, M., et al, [1993,jpn] **48-2433**
Research on permafrost and periglacial processes in mountain areas—status and perspectives. Haeberli, W., [1993,eng] **48-5184**
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] **48-528**
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] **48-1730**
Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] **48-5241**
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] **48-4820**
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] **48-527**
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] **48-415**
Snow and permafrost in the Tian Shan Mountains. Hu, R.J., et al, [1993,eng] **48-5215**
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] **48-446**
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] **48-533**
Studies on mountain permafrost in Asia. Qiu, G.Q., [1993,eng] **48-5187**
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] **48-5210**
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] **48-473**
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] **48-1521**
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] **48-406**
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] **48-879**
Towards a permafrost information and data system. Barry, R.G., et al, [1993,eng] **48-353**
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] **48-1936**
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] **48-366**
Viable microorganisms in permafrost. Gilichinskiĭ, D.A., [1993,eng] **48-881**
Winter testing for permafrost identification. Guglielmin, M., et al, [1993,ita] **48-1133**

Permafrost thermal properties

Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] **48-487**
Borehole temperature equilibrium in permafrost. Wang, B.L., [1993,chi] **48-4585**
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] **48-499**
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] **48-5034**
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] **48-3393**
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] **48-878**
Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] **48-374**
Ground temperature measurement at a permafrost site. Collins, C.M., et al, [1993,eng] **48-5199**
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] **48-5036**
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] **48-411**
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] **48-5181**
Permafrost and climatic change: an annotated bibliography. Koster, E.A., et al, [1994,eng] **48-5434**
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] **48-4128**
Permafrost formation time. Lunardini, V.J., [1993,eng] **48-428**
Permafrost in the Selenge River basin (on the Mongolian territory). Sharkhuu, A., [1993,eng] **48-5236**
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] **48-5212**
Permafrost studies in Greenland. Mai, H., et al, [1993,eng] **48-5214**
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] **48-5232**
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-5180**
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] **48-475**
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] **48-4359**
Study of the thermal state in the permafrost at the Sejong Station, Antarctica. Han, U., et al, [1993,eng] **48-5210**
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] **48-443**
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] **48-352**
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] **48-1521**
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] **48-406**
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] **48-879**
Warm permafrost soils of interior Alaska. Moore, J.P., et al, [1993,eng] **48-2282**
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] **48-5247**

Permafrost thickness

Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] **48-3761**
Circumarctic map of permafrost and ground ice conditions. Heginbottom, J.A., et al, [1993,eng] **48-5213**
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] **48-2701**
Effect of lake proximity on permafrost formation. Wu, Q.B., et al, [1993,eng] **48-485**
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] **48-878**
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] **48-1423**
Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] **48-2505**
Mathematical modeling of the dynamics of permafrost thickness given a filtering layer. Kozlov, A.N., et al, [1992,rus] **48-1390**
Modelling permafrost response to climate change and climate variability. Riseborough, D.W., et al, [1993,eng] **48-877**
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,chi] **48-4394**
Permafrost and periglacial landforms in Kekexili area of Qinghai Province. Li, S.D., et al, [1993,eng] **48-5223**
Permafrost around CGWS, Antarctica. Chen, X.B., [1993,eng] **48-364**
Permafrost formation time. Lunardini, V.J., [1993,eng] **48-428**
Permafrost in the Selenge River basin (on the Mongolian territory). Sharkhuu, A., [1993,eng] **48-5236**
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] **48-1515**
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] **48-387**
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] **48-5183**
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,chi] **48-4395**
Regional features of permafrost in Mahan Mountain and their relationship to the environment. Li, Z.F., et al, [1993,eng] **48-5224**
Regularities of perennially frozen ground forming in southern Zabaikalie. Sal'nikov, P.I., [1993,eng] **48-530**
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] **48-2543**

Permafrost transformation

Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] **48-2207**
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] **48-2033**
Arctic well drilling and completion problems. Kutasov, I.M., [1993,eng] **48-416**
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] **48-3501**
Cast in place concrete piles in permafrost. Mølmann, T., et al, [1993,eng] **48-439**
Climate change and methane. Nisbet, E.G., [1990,eng] **48-1812**
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] **48-4169**
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] **48-525**
Cryogenic processes and phenomena in Mongolia. Lombo-rinchen, R., [1993,eng] **48-426**
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] **48-943**
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] **48-493**
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] **48-451**
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] **48-441**
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] **48-5115**
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] **48-3230**
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] **48-512**
Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] **48-498**
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] **48-506**
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] **48-501**
Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] **48-409**
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] **48-423**
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] **48-526**
Geomorphological changes in arctic permafrost. King, L., [1993,eng] **48-413**
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] **48-1386**
Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] **48-2036**
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] **48-1756**
Impacts of climate change on resource management in the North. Combined Fourth Canada-United States Symposium & Biennal AES/DIAND Meeting on Northern Climate, Proceedings, Whitehorse, Yukon Territories, Canada, May 12-14, 1992, [1992,eng] **48-2030**
Impacts of northern climate changes on arctic engineering practice. Esch, D.C., [1992,eng] **48-2040**
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] **48-692**
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] **48-1887**
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskiĭ, D.A., et al, [1993,eng] **48-518**
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] **48-456**
Mining impact on permafrost hydrology. Klimovskiĭ, I.V., et al, [1993,eng] **48-522**
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] **48-1613**
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] **48-359**
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] **48-389**
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] **48-2034**
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] **48-5306**
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] **48-5181**
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] **48-372**
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] **48-401**
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] **48-488**
Permafrost influence on push moraine formation. Lehmann, R., [1993,eng] **48-418**
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] **48-4938**
Permafrost transformations in China. Gu, Z.W., et al, [1993,eng] **48-387**
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] **48-2032**
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] **48-2570**
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] **48-1262**
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] **48-495**
Regularities of perennially frozen ground forming in southern Zabaikalie. Sal'nikov, P.I., [1993,eng] **48-530**
Relationship between global warming and methane gas hydrates in the earth. Hatzikiriakos, S.G., et al, [1993,eng] **48-1836**
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] **48-388**
Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] **48-421**

Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] 48-410

Permafrost weathering
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385

Permeability
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Questions on the preservation of frozen straw-colored soils. Sleptsov, V.I., et al, [1988,rus] 48-911
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
See also]: Seepage; Snow permeability

Peru
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496

—Andes
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894

Petroleum
See also]: Crude oil

Petroleum industry
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] 48-3330
Arctic drilling fleet to get manager.[1992,eng] 48-2663
Canada re-opens northern frontier to oil and gas exploration. Henderson, B., [1993,eng] 48-1019
Canada sizes up oil, gas strikes in Yukon, N.W.T.[1994,eng] 48-2157
Challenges within oil and gas exploration and production in arctic regions. Usterud, O., et al, [1994,eng] 48-5562
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] 48-3029
Direct conversion of natural gas to higher hydrocarbon liquids. Sackinger, W.M., et al, [1994,eng] 48-3984
EAMES bibliography. Goodwin, C.R., ed, [1982,eng] 48-2918
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
Field development projects advance in Norwegian Sea. Vielvoye, R., [1992,eng] 48-2456
Finnish firms in arctic shipping joint venture.[1993,eng] 48-3228
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] 48-2457
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] 48-4045
Petroleum potential of the Beaufort and Chukchi Seas. Cooke, L.W., [1993,eng] 48-788
Problems of power and transport industries in the Asian polar regions of Russia. Bredikhin, V.I., et al, [1994,eng] 48-3949
Producing Prudhoe Bay. Sohio-BP (Standard Oil Company of Ohio-British Petroleum Company), [1978,eng] 48-3328
Prospective Canadian High Arctic awaits higher oil & gas prices.[1993,eng] 48-1018
Russian arctic shelf hydrocarbon development to proceed. George, D., [1993,eng] 48-1017
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408

Petroleum transportation
Technological challenges for hydrocarbon production in the Barents Sea. Gudmestad, O.T., et al, [1993,eng] 48-125

Phase transformations
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993
Analysis of permafrost solifluction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] 48-497
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Boundary element method applied to freezing and melting problems. Vick, B., et al, [1993,eng] 48-1738
Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] 48-1520
Coefficients of linear expansion of freezing soils. Mordovskiĭ, S.D., et al, [1993,eng] 48-70
Cold storage system. Furuhama, K., [1991,eng] 48-2232
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] 48-3318
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] 48-4814
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] 48-1371
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] 48-2573
Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
Freeze/thaw characteristics of room temperature heat pipes. Ochterbeck, J.M., [1994,eng] 48-3555
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Gas hydrate dissociation from ice matrix in natural reservoirs. Tsypkin, G.G., [1993,eng] 48-1739
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] 48-974
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384
Heat transfer prediction of two-phase closed thermosyphon with freezing. Wu, C.Z., et al, [1993,eng] 48-891
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] 48-946
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] 48-3624
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] 48-3625
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] 48-4167
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] 48-1105
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] 48-386
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1993,eng] 48-453
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] 48-4718
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Nucleation of ice. Vali, G., [1991,eng] 48-1119
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1153
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] 48-384
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382
Permafrost formation time. Lunardini, V.J., [1993,eng] 48-428
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] 48-1366
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] 48-4645
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] 48-5385
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] 48-857
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] 48-3939
Simulation of hydrocarbon spills in permafrost. Corapcioglu, M.Y., et al, [1993,eng] 48-367
Simulation of soil freeze-thaw mechanics. Zhu, L.N., et al, [1993,eng] 48-509
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Specificity of the phase transformations in the cryogenic saline sandy soils. Frolov, A.D., et al, [1993,eng] 48-2300
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Stress-strain state of frozen rocks at their thawing around excavations. Dubina, M.M., et al, [1993,eng] 48-516
Structure of ordinary ice Ih. Part 1: ideal structure of ice. Petrenko, V.F., [1993,eng] 48-2534
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295

Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] 48-889
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894
Thermal design for annular shaped phase-change storage systems. Prasad, A., et al, [1993,eng] 48-893
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Twin rinse columns for freeze concentration of rinsable concentrates. Heiland, W.K., et al, [1991,eng] 48-2224
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697
Vaporization of liquid oxygen (LOX) droplets in supercritical hydrogen environments. Lin, N.C.N., [1993,eng] 48-3541
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
See [also]: Solid phases

Phenology
Alpine plant growth manipulation through snowmelt variation. Galen C., et al, [1993,eng] 48-961
Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] 48-4998
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] 48-4060
Flowering phenology in tundra plants. Molau, U., [1993,eng] 48-2423
Open-top devices for manipulating field temperatures in tundra ecosystems. Marion, G.M., et al, [1993,eng] 48-880
Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] 48-3345
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] 48-2348
Vivipary in *Polygonum viviparum*: an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057

Phosphorus cycle
See [also]: Nutrient cycle

Photochemical reactions
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] 48-1252
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] 48-2477
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] 48-4048
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] 48-2579
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] 48-3037
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] 48-2051
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] 48-2052
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] 48-3296
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] 48-5490
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] 48-5491
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] 48-3899
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] 48-2952
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] 48-5492
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Photogrammetric surveys
Determination of height changes of glaciers in the eastern Alps, 1950-1959-1969. Finsterwalder, R., et al, [1977,ger] 48-3309
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Orthophotomaps of glacierized areas. Brunner, K., [1977,ger] 48-3311
Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] 48-128
Recent changes in glacier tongues in the Langtang Khola basin. Kappenberger, G., et al, [1993,eng] 48-2776
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1992,eng] 48-1893
Terrestrial photogrammetry of Andean glacier retreat. Brecher, H.H., et al, [1993,eng] 48-1894

Photogrammetry
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] 48-1317
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332
Simple photogrammetric survey methods for glaciology and erosion control. Waldhäusl, P., [1986,ger] 48-610
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] 48-473
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] 48-1330
Velocity pattern in a transect across Ice Stream 'B', Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582

Photographic equipment
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307

Photographic reconnaissance
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] 48-5292
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] 48-4162

Photographic techniques
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] 48-2819
Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] 48-2824

Photography
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] 48-5160
See [also]: Infrared photography; Oblique photography; Radar photography; Spaceborne photography; Stereophotography

Photointerpretation
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] 48-4928
Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] 48-3933
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921
See [also]: Geobotanical interpretation

Photometric analysis
See [also]: Photometry

Photometry
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
Comparative antarctic ozone spectrophotometry. Nichol, S.E., et al, [1993,eng] 48-1360
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] 48-2431
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] 48-4700
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] 48-2589
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476

Photosynthesis
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991. [1993,eng] 48-1249
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] 48-5382
Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] 48-5421
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] 48-1252
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton. Neale, P.J., et al, [1992,eng] 48-5097
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] 48-3606
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition. Bidigare, R.R., et al, [1992,eng] 48-5095
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Optical measurements. Hökedal, J., et al, [1992,eng] 48-2906
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Physiology of High Arctic sea ice algae. Smith, R.E.H., et al, [1990,eng] 48-3242
Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
Subnivean development of a snowbank geophyte. Hamerlynck, E.P., et al, [1994,eng] 48-3503
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] 48-5419
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] 48-4386

Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] 48-4388
Will the ozone hole over Antarctica affect the productivity of the southern ocean. El-Sayed, S.Z., [1992,eng] 48-3246

Physical properties
3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] 48-2317
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Concrete durability incorporating domestic fly ash. Bilodeau, A., et al, [1994,eng] 48-3783
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] 48-2819
Construction of electrical substations in discontinuous permafrost regions. Huneault, F.A., et al, [1993,eng] 48-402
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] 48-4296
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Freeze-thaw durability of roller-compacted concrete made with Rolad binder. Delagrave, A., et al, [1994,fre] 48-5143
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] 48-2542
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Ice wedges in northeastern China. Tong, B.L., [1993,eng] 48-466
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] 48-1754
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956
See [also]: Atmospheric physics; Frozen ground physics; Ice physics; Permafrost physics; Snow physics; Soil physics

Physiological effects
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States. Wakeford, B., ed, et al, [1993,eng] 48-2707
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Physiology of High Arctic sea ice algae. Smith, R.E.H., et al, [1990,eng] 48-3242
Release of an ice-active substance by antarctic sea ice diatoms. Raymond, J.A., et al, [1994,eng] 48-3043
Studies on the driver's visual point. Chapter 8. Visual behavior of drivers in blowing snow. Hagiwara, T., [1991,jpn] 48-4238
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms. Hartwell, S.I., et al, [1993,eng] 48-1846

Physiology
See [also]: Plant physiology

Piers
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5624
Arch formation of ice floes at bridge structures. Hara, F., et al, [1993,eng] 48-140
Arch formation of ice floes at structures. Hara, F., et al, [1993,jpn] 48-1040
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Ice issues related to the Prince Edward Island Bridge. Feltham, J.A., et al, [1994,eng] 48-5621
Ice loads on conical piers—a finite element investigation. Derradji-Aouat, A., [1994,eng] 48-4265
Method for the calculation of sheet ice loads on sloping structures. Croasdale, K.R., et al, [1994,eng] 48-5626
Movement of ice floes near a river mouth on the Okhotsk Sea coast. Yamauchi, T., et al, [1993,jpn] 48-1049
Parameters influencing ice arch formation. Schachter, M., et al, [1994,eng] 48-5623
Potential influences of the Prince Edward Island Bridge on the ice environment. Brown, T.G., et al, [1994,eng] 48-5622
Study on drift ice control utilizing arch formation of ice floes. Hara, F., et al, [1993,eng] 48-4353
Super elliptic bridge piers for ice forces. Sörensen, C., et al, [1993,eng] 48-149
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836
See [also]: Docks; Wharves

Pile driving
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Developing frozen ground in northern construction. Rastegaev, I.K., [1992,rus] 48-1264

Pile load tests
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] 48-803
Creep effects on a laterally loaded pile. Domaschuk, L., et al, [1993,eng] 48-377
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] 48-534
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia. McKeown, S., et al, [1994,eng] 48-3388
Pile uplift forces and the adfreeze phenomenon. Suman, J.C., [1994,eng] 48-3019
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] 48-357

Pile structures
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] 48-2351
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] 48-536
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
Influence of frost heave on pile stability. Liu, H.X., [1993,eng] 48-424
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] 48-534
Snow avalanche protection program and structural design—case study of Maseguchi area. Fujisawa, K., [1994,eng] 48-4932

Piles
Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267
Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Design of piles in swelling soils. Shishkin, V.IA., [1990,eng] 48-1387
Effect of electric current on the adhesion of ice to metal piles. Paasivuori, P., et al, [1994,eng] 48-3965
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,chi] 48-4505
Frost resistant bridge piles in a waterlogged area. Huang, J.H., et al, [1993,eng] 48-5216
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
Pile uplift forces and the adfreeze phenomenon. Suman, J.C., [1994,eng] 48-3019
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] 48-2214
See [also]: Concrete piles

Pingos
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Pingos and pingo ice of the western arctic coast, Canada. Mackay, J.R., [1994,eng] 48-5290
See [also]: Frost mounds; Hummocks

Pipe flow
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Freezing of water flow in a horizontal cooled tube. Fukusako, S., et al, [1993,eng] 48-865
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] 48-294
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866

Pipe laying
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117
Distinguishing features of pipeline construction in arctic regions. Kharionovskii, V.V., [1994,eng] 48-3990
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Laying arctic gas pipeline across Baidaratskaya Gulf. Shakirov, R.M., [1993,eng] 48-4314
Multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-4345
Multipurpose icebreaker for the Finnish National Board of Navigation. Lohi, P., et al, [1993,eng] 48-4344
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Trans-Alaska Pipeline Research Program. Progress report 77-A. Crory, F.E., [1976,eng] 48-3427
Trans-Alaska Pipeline Research Program. Progress report 77-B. Austin, M.A., [1977,eng] 48-3428

Pipeline freezing
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Freeze plug isolation for undersea gas line. Knoll, T., [1994,eng] 48-5046
Freezing of water in a closed circular tube. Sugawara, M., et al, [1993,eng] 48-868
Optimal thermal regime of pipeline gas transportation in permafrost zone. Antonov-Druzhinin, V.P., [1994,eng] 48-3989
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866

Pipeline heating
Applying skin effect current tracing to pipeline heating. Tracey, R.W., [1979,eng] 48-4140

Pipeline insulation
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] 48-3379
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] 48-3384
Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] 48-872

Pipeline supports
Distinguishing features of pipeline construction in arctic regions. Kharionovskii, V.V., [1994,eng] 48-3990

Pipelines
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2828
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Problems in designing pipelines for northern Russia. Dimov, L.A., [1993,rus] 48-743
Proceedings. Vol.2. International Offshore and Polar Engineering Conference, 3rd, Singapore, June 6-11, 1993, [1993,eng] 48-4312
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269
Trans-Alaska Pipeline Research Program. Progress report 77-A. Crory, F.E., [1976,eng] 48-3427
Trans-Alaska Pipeline Research Program. Progress report 77-B. Austin, M.A., [1977,eng] 48-3428
See [also]: Gas pipelines; Suspended pipelines; Underground pipelines; Water pipelines

Pipes (tubes)
Aircraft deicer system. Manda, L.J., et al, [1993,eng] **48-1940**
Automation of field tests of pipes and high pressure vessels and prospects for its development. Levin, A.I., et al, [1990,rus] **48-53**
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] **48-4704**
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] **48-2155**
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] **48-2046**
Melting heat transfer along a horizontal heated tube immersed in liquid ice. Yamada, M., et al, [1993,eng] **48-1105**
Method and equipment for maintaining ice-free locks. Pontynen, E., [1993,eng] **48-1656**
Method for low temperature field tests of pipes and pressure vessels. Sosin, T.S., et al, [1990,rus] **48-51**
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] **48-384**
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] **48-294**
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] **48-2151**
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] **48-4957**
See [also]: Heat pipes; Water pipes
Piston corers
See [also]: Core samplers
Pit and mound topography
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] **48-4370**
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] **48-991**
Placer mining
Complex technology for preparation of perennially frozen placers to dredging. Kuril'chik, A.F., et al, [1993,eng] **48-525**
Computer modeling of alpine stream diversions. Brady, T.M., et al, [1993,eng] **48-689**
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] **48-3506**
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] **48-476**
Plains
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] **48-1803**
See [also]: Floodplains
Planetary environments
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] **48-1100**
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] **48-992**
Laboratory and theoretical study of the far infrared spectra of Martian ices. Johnson, B.R., [1994,eng] **48-3543**
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] **48-994**
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] **48-1213**
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] **48-752**
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] **48-1618**
Reports of planetary geology and geophysics program, 1990.[1991,eng] **48-3696**
See [also]: Mars (planet)
Plankton
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] **48-4540**
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] **48-5002**
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] **48-5636**
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] **48-4212**
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna*. Karentz, D., et al, [1992,eng] **48-5096**
Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991. Sapozhnikov, V.V., [1992,eng] **48-2696**
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] **48-3290**
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al, [1994,eng] **48-3927**
Ice algae and kisel algae distribution. Hellum, C., [1992,eng] **48-2907**
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] **48-717**
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] **48-5635**
Limnological research in Terra Nova Bay area. Guilizzoni, P., et al, [1992,eng] **48-4767**
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] **48-2480**
Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] **48-4734**
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] **48-5126**
Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman. Il'in, G.V., [1991,rus] **48-2526**
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] **48-1510**
Phytoplankton ice-edge blooms in the northwestern Weddell Sea. Lancelot, C., et al, [1993,eng] **48-596**
Phytoplankton population dynamics in Lake Fryxell. Spaulding, S.A., et al, [1994,eng] **48-4813**
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] **48-5001**
Phytoplankton variations in Weddell Sea ice formation. Gleitz, M., et al, [1993,eng] **48-2411**
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] **48-942**
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] **48-305**
Production of microphytobenthos in the coastal area of the Barents Sea. Kuznetsov, L.L., [1991,rus] **48-2531**
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] **48-2524**
Quantitative and productive characteristics of the bacteria population in the coastal area of the Barents Sea. Baitaz, V.A., et al, [1991,rus] **48-2527**
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] **48-4207**
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] **48-3926**
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] **48-3709**
Sea ice and open-water plankton carbon isotopic composition. Dunbar, R.B., et al, [1992,eng] **48-3767**
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea. Wassmann, P., et al, [1993,eng] **48-595**
Seasonal population dynamics and distribution of dominant zooplankton species in the Barents Sea. Fomin, O.K., [1991,rus] **48-2533**
Seasonal succession of microphytoplankton in the coastal zone of East Murman. Druzhkov, N.V., et al, [1991,rus] **48-2530**
Seasonal succession of zooplankton in the coastal zone of Eastern Murman. Druzhkov, N.V., et al, [1991,rus] **48-2532**
Study of the ecosystem of the Bering and Chukchi seas. Izrael', IU.A., ed, et al, [1992,rus] **48-653**
Zooplankton changes during the year in Admiralty Bay (February 1990-January 1991). Men'shenina, L.L., et al, [1992,eng] **48-540**
Plant ecology
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] **48-1609**
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] **48-961**
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] **48-5382**
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] **48-937**
Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] **48-205**
Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] **48-5421**
Arctic coastal ecosystems. Bliss, L.C., [1993,eng] **48-1123**
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] **48-2559**
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] **48-2425**
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] **48-1736**
Developing means of controlling weeds in meadow agrophytocenoses. D'iachkovskii, V.V., [1988,rus] **48-915**
Dry coastal ecosystems of Greenland. Daniels, F.J.A., et al, [1993,eng] **48-1125**
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] **48-4995**
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] **48-451**
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] **48-637**
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] **48-3506**
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] **48-5388**
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] **48-638**
Flowering phenology in tundra plants. Molau, U., [1993,eng] **48-2423**
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] **48-935**
Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] **48-498**
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] **48-2681**
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] **48-5125**
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] **48-2697**
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] **48-204**
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] **48-4377**
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment. Walker, D.A., et al, [1993,eng] **48-2970**
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] **48-2076**
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] **48-207**
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] **48-4376**
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] **48-5003**
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] **48-2422**
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] **48-2124**
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] **48-2480**
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] **48-2374**
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] **48-2558**
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] **48-1246**
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] **48-83**
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] **48-5131**
On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] **48-206**
Open-top devices for manipulating field temperatures in tundra ecosystems. Marion, G.M., et al, [1993,eng] **48-880**
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] **48-3507**
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] **48-425**
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] **48-939**
Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] **48-4809**
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] **48-5018**
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] **48-942**
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] **48-1383**
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] **48-4996**
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] **48-1385**
Plant resources of Siberia: their contemporary state and protection. Koropachinskii, I.IU., et al, [1994,eng] **48-2479**
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] **48-2468**
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] **48-3429**
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] **48-941**
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] **48-1650**
Seed survival in a high alpine block field. Moen, J., [1993,eng] **48-938**
Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] **48-3345**
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] **48-940**
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] **48-2348**
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] **48-343**
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] **48-4482**
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] **48-1892**
Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] **48-421**
Subnivean development of a snowbank geophyte. Hamerlynck, E.P., et al, [1994,eng] **48-3503**
Synopsis of the species of the subgenus *Scapiflorae* of the genus *Campanula* (Campanulaceae). Oganesian, M.E., [1993,rus] **48-1645**
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] **48-1269**
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] **48-5419**
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] **48-969**
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] **48-2464**
See [also]: Forest ecosystems
Plant introduction
See [also]: Introduced plants
Plant location
See [also]: Site surveys
Plant physiology
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] **48-1249**
Alpine plant photosynthesis under elevated CO_2. Körner, C., et al, [1994,eng] **48-5382**
Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] **48-5421**
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] **48-4284**

Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] 48-2559
Caryopteris mongholica (Verbenaceae)—rare species of Siberian flora: its biology and introduction. Semenova, G.P., [1993,rus] 48-1631
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] 48-1252
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] 48-4835
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] 48-1758
Crop cold-resistant appraisal principles and appraisal technology system research. Zhao, Y.T., et al, [1993,chi] 48-4508
Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] 48-1257
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] 48-3606
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo*. Hincha, D.K., et al, [1993,eng] 48-1255
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et al, [1993,eng] 48-3936
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] 48-2156
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] 48-1253
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] 48-2374
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Protein changes and functions during cold acclimation of winter wheat. Zhao, Y.T., et al, [1993,eng] 48-505
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] 48-4834
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] 48-5419
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628

Plant tissues

Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] 48-4284
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] 48-133
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] 48-2559
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] 48-1256
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] 48-4835
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] 48-1758
Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876
Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] 48-1257
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] 48-3606
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Freeze-thaw damage to thylakoid membrane *in vitro* and *in vivo*. Hincha, D.K., et al, [1993,eng] 48-1255
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Ice encasement as a component of winter kill in herbage plants. Gudleifsson, B.E., et al, [1993,eng] 48-1259
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
Interpreting past climate from stable isotopes in continental organic matter. Edwards, T.W.D., [1993,eng] 48-1501
Molecular aspects of frost injury in herbaceous plants. Palta, J.P., et al, [1993,eng] 48-1253
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] 48-4834
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628

Plants (botany)

Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] 48-1249
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] 48-961
Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] 48-5421
Altitudinal distribution of vascular plants in the mountains of the Kronotskiy reservation. Kuvaev, V.B., [1993,rus] 48-4225
Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Analysis of Upper Kolyma Highland lichen flora. Kotlov, IU.V., [1993,rus] 48-4224
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] 48-133
Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632
Caryopteris mongholica (Verbenaceae)—rare species of Siberian flora: its biology and introduction. Semenova, G.P., [1993,rus] 48-1631
Characteristics of shrubby willow associations in wet and moist habitats (eastern Chukotskiy Peninsula). Sekretareva, N.A., [1992,rus] 48-1625
Chronological study of the taxonomic structure of *Poa* of the section *Stenopoa* (Poaceae) in Siberia. Olonova, M.V., [1993,rus] 48-5277
Classification of meadow communities of the tundra zone on the Taymyr Peninsula: the *Pediculari verticillatae-Astragaletum arctici* association. Zanokha, L.L., [1993,rus] 48-1643
Comparative characteristics of the flora in the vicinity of Penkigney Bay and neighboring territories. Sekretareva, N.A., [1993,rus] 48-4223
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Developing means of controlling weeds in meadow agrophytocenoses. D'iachkovskiĭ, V.V., [1988,rus] 48-915
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Flora of Bolshevik Island (Severnaya Zemlya archipelago). Safronova, I.N., [1993,rus] 48-1633
Flora of Siberia. Volume 5: Salicaceae—Amaranthaceae. Krasnoborov, I.M., ed, et al, [1992,rus] 48-3722
Flora of the Losyanka River valley (Western Chukotka). Plieva, T.V., [1993,rus] 48-1642
Flora of the lower reaches of the Yana River (Northern Yakutia). Petrovskiĭ, V.V., [1992,rus] 48-1628
Floristic findings in the Aldan highlands and Tokinsky Stanovik range. Volotovskiĭ, K.A., et al, [1993,rus] 48-5285
Floristic findings in the Baikal region. Zarubin, A.M., et al, [1993,rus] 48-5276
Floristic findings in the Stanovo Nagor'e (Eastern Siberia). Chechetkina, L.G., [1993,rus] 48-1636
Freezing tolerance in contrasting ryegrass genotypes. Thomas, H., et al, [1993,eng] 48-3936
Geographical analysis of flora of the Cherek Bezengiyskiy River basin (Central Caucasus). Portenier, N.N., [1993,rus] 48-5280
Geographical analysis of the flora in the Cherek Bezengiĭskiĭ River basin (Central Caucasus). Part 1. Portenier, N.N., [1993,rus] 48-4275
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology.[1994,eng] 48-2482
Leafy mosses in the middle current of the Sebayakha River (Central Yamal). Cherniad'eva, I.V., [1993,rus] 48-5283
Lecanora geophila and *Arctpeltis thuleana* (Lichenes) from the Siberian Arctic. Zhurbenko, M.P., et al, [1993,rus] 48-4227
Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67
Lichens collected at the bird colony in the northwestern part of Bolshevik Island (Severnaya Zemlya). Kotlov, IU.V., [1993,rus] 48-5273
Lichens of the genera *Cladina* and *Cladonia* from southern Altai (eastern Kazakhstan). Myrzakulova, Z.S., [1993,rus] 48-5279
Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands. Perestenko, L.P., [1993,rus] 48-5274
Liverworts of Chukotka. Afonina, O.M., et al, [1993,rus] 48-1641
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] 48-2480
Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient. IUrtsev, B.A., et al, [1993,rus] 48-1629
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
New species of the genus *Aquilegia* (Ranunculaceae) from Eastern Siberia. Vasil'eva, I.M., [1992,rus] 48-1626
New taxa of the genus *Potentilla* (Rosaceae) from arctic Alaska. IUrtsev, B.A., [1993,rus] 48-5284
Oxytropis tananensis—new species of the section *Baicalia* (Fabaceae) from the interior of eastern Alaska. IUrtsev, B.A., [1993,rus] 48-5278
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Phytocoenotic structure of *Larix* open woods in the extreme northern forest stand "Ary-Mas". Norin, B.N., [1993,rus] 48-5286
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Plant resources of Siberia: their contemporary state and protection. Koropachinskiĭ, I.IU., et al, [1994,eng] 48-2479
Protected species of vascular plants in the Komsomol'sk reservation (Russian Far East). Van, V.M., [1993,rus] 48-1638
Protein changes and functions during cold acclimation of winter wheat. Zhao, Y.T., et al, [1993,eng] 48-505
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Role of lichens in vegetation cover formation in the Upper Kolyma highlands. Kotlov, IU.V., [1993,rus] 48-5282
Second instance of *Populus balsamifera* (Salicaceae) in the eastern part of the Chukotskiy Peninsula. Katenin, A.E., [1993,rus] 48-1646
Second instance of *Viola incisa* (Violaceae) in Central Siberia. Ivanova, M.M., et al, [1993,rus] 48-1635

Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] **48-3345**
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] **48-2348**
Species composition of the golden algae *(Chrysophyta)* from the Ob' River. Naumenko, IU.V., [1992,rus] **48-1627**
Spotty distribution of alpine plants in the western Caucasus. Akatov, V.V., [1993,rus] **48-5281**
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting. Kholod, S.S., [1993,rus] **48-4226**
Supplements and emendations to the list of local flora in the vicinity of the Anguema Bridge (Chukotskiy Peninsula). Kucherov, I.B., [1993,rus] **48-1637**
Synopsis of the species of the subgenus *Scapiflorae* of the genus *Campanula* (Campanulaceae). Oganesian, M.E., [1993,rus] **48-1645**
Taxonomy of the *Eriophorum* (Cyperaceae) species related to *Eriophorum russeolum*. Novoselova, M.S., et al, [1993,rus] **48-5275**
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula. Rebristaia, O.V., et al, [1993,rus] **48-1644**
Two new lichen species found in Taymyr Peninsula. Zhurbenko, M.P., et al, [1993,eng] **48-1634**
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] **48-3609**
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] **48-5057**
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] **48-134**
See [also]: Algae; Grasses; Introduced plants; Lichens; Mosses; Trees (plants); Vegetation

Plants (industries)
See [also]: Industrial buildings

Plastic coatings
See [also]: Protective coatings

Plastic deformation
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] **48-3973**
Cryogenic deformation in soils and their engineering geology consequence. Danilov, I.D., et al, [1994,eng] **48-3400**
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] **48-4969**
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] **48-2380**
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] **48-4985**
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] **48-2749**
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] **48-4812**
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] **48-4299**
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] **48-2115**

Plastic flow
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] **48-4001**
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] **48-4181**

Plastic properties
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] **48-2143**
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] **48-212**
Plastic frozen (saline) soil as bases. Aksenov, V.I., et al, [1993,eng] **48-349**
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] **48-4181**
See [also]: Ice plasticity

Plasticity tests
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] **48-2371**

Plastics
Applications of recycled plastics for roadside safety hardware. Dutta, P.K., et al, [1994,eng] **48-3268**
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] **48-4362**
Composite materials for arctic use. Sakurai, A., et al, [1993,jpn] **48-1041**
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] **48-2093**
See [also]: Cellular plastics

Plastics ice friction
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] **48-4969**

Plastics snow friction
Basic principles of alpine ski bindings and tribology. Kondo, H., [1994,jpn] **48-3998**
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] **48-2632**
Device for testing ski sliding surface. Kamenskikh, V.A., et al, [1990,eng] **48-2187**
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] **48-4952**
Tribology of skiing and skating. Tsushima, K., [1994,jpn] **48-3997**

Plates
Effect of heat conductor plates on ice formation near a wall. Hirata, T., et al, [1993,eng] **48-864**
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] **48-1223**

Pleistocene
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] **48-929**
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] **48-3650**
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] **48-5632**
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] **48-5641**
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] **48-5320**
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] **48-4986**
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] **48-2331**
Boulder clusters in glacial flutes. Rose, J., [1992,eng] **48-2519**
Canadian ice sheet decay in the Late Pleistocene. Clague, J.J., et al, [1993,eng] **48-3588**
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] **48-1220**
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] **48-4823**
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] **48-1748**
Climate change and methane. Nisbet, E.G., [1990,eng] **48-1812**
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] **48-503**
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] **48-3326**
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] **48-5319**
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] **48-5052**
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] **48-4824**
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] **48-4200**
Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] **48-4827**
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] **48-3560**
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] **48-3131**
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] **48-4990**
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] **48-2561**
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] **48-3804**
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] **48-1384**
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] **48-5050**
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] **48-2518**
Dynamic former ice sheets. Dowdeswell, J.A., [1990,eng] **48-1502**
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] **48-947**
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] **48-232**
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] **48-1248**
End of the ice age. Nisbet, E.G., [1990,eng] **48-1747**
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] **48-3575**
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] **48-3315**
Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka). Korolev, S.IU., [1993,eng] **48-261**
Frost shattering and Pleistocene periglacial slope processes Mary, G.M.E., [1988,eng] **48-256**
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] **48-2808**
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] **48-5013**
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] **48-5064**
Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] **48-2144**
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] **48-2206**
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] **48-2516**
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] **48-2457**
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] **48-4951**
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] **48-5162**
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] **48-4199**
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] **48-2661**
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] **48-4093**
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] **48-1398**
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] **48-345**
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] **48-2402**
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] **48-4188**
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskiĭ, M., et al, [1994,eng] **48-5370**
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] **48-1505**
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] **48-2340**
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] **48-3239**
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] **48-3521**
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] **48-3261**
Ice masses on the move. Sutherland, D.G., [1990,eng] **48-1504**
Ice records of the past environment. Delmas, R.J., [1994,eng] **48-5308**
Ice sheet accumulation rates derived from ice core records. Dahl-Jensen, D., et al, [1993,eng] **48-4202**
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] **48-1218**
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] **48-4260**
Ice wedges in northeastern China. Tong, B.L., [1993,eng] **48-466**
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] **48-5062**
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] **48-5139**
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] **48-4984**
Landscapes of cold-centred Late Wisconsinan ice caps, arctic Canada. Dyke, A.S., [1993,eng] **48-694**
Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] **48-1657**
Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange. Crowley, T.J., et al, [1988,eng] **48-1658**
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] **48-1007**
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] **48-3327**
Late Weichselian glaciation and deglaciation in northeastern Troms, northern Norway. Kverndal, A.I., et al, [1993,eng] **48-2883**
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] **48-4945**
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] **48-5141**
Latest Pleistocene cryomere in the region of "kopjes" and the big mesetas, Patagonia, Argentina. Trombotto, D., et al, [1993,eng] **48-5240**
Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] **48-2878**
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] **48-2522**
Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] **48-531**
Melting history of the Late Weichselian ice sheet. Grosswald, M.G., [1993,eng] **48-4178**
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] **48-3233**
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] **48-2517**
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] **48-4828**
Modeling the Pleistocene ice ages. Chalikov, D.V., et al, [1990,eng] **48-1677**
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] **48-4195**
Modelling of the Fennoscandian ice sheet. Letréguilly, A., et al, [1993,eng] **48-4179**
Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] **48-369**
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] **48-633**
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] **48-2102**
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] **48-5047**
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] **48-535**
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] **48-4825**
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] **48-1011**

Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Numerical simulation of the ice age climate. Wang, H.J., et al, [1993,eng] 48-3221
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] 48-2728
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
On the study of nival deposits in Yakutia. Kunitskii, V.V., [1993,eng] 48-524
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] 48-1219
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Periglacial period and Pleistocene natural environment of Western Mountains of Beijing. Guo, X.D., [1993,eng] 48-5208
Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] 48-515
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] 48-1506
Pleistocene deposits of the White Sea and its coast. Nemtsova, G.M., et al, [1993,rus] 48-3744
Pleistocene evolution of Scandinavian ice sheets. Henrich, R., et al, [1994,eng] 48-3750
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] 48-1010
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] 48-1817
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology. Xu, Q.Q., [1993,chi] 48-4572
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] 48-1148
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] 48-3310
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province. Li, S.J., et al, [1992,chi] 48-2011
Quaternary glaciations in the Altai Mountains of China. Cui, Z.J., et al, [1992,chi] 48-2014
Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] 48-4991
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991,ger] 48-3658
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610
Recent discovery of periglacial phenomena in Inner Mongolia. Wang, Z.Y., et al, [1993,eng] 48-5249
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Scale of the last glaciation in the arctic basin. Pavlidis, Iu.A., [1992,eng] 48-2605
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Significant breakthrough in land-based record of ice age climates. Li, P.J., [1993,chi] 48-4583
Simple systems model of the major glaciation cycles. Imbrie, J., [1993,eng] 48-4193
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] 48-3550
Soil formation and cryogenesis on the Russian plain during the last 125,000 years. Velichko, A.A., et al, [1993,eng] 48-2285
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] 48-3796
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Third International Drumlin Symposium—introduction. Aario, R., et al, [1992,eng] 48-2515
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
Transport of freshwater into the deep ocean by the conveyor. Lehman, S.J., et al, [1993,eng] 48-4189
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] 48-1507
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471
See [also]: Ice age theory

Podsol

Correlation of Russian, US, and Canadian classification systems for selected tundra and taiga soils (in N-E Russia). Mazhitova, G., et al, [1993,eng] 48-2275
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Problems of genesis and classification of north taiga soils of the European Russia. Vtiurin, G.M., [1993,eng] 48-2280
Soil cover of the southern taiga in Central Siberia. Gorbachev, V.N., et al, [1992,rus] 48-4149
Soils of Casey Station (Wilkes Land, Antarctica). Blume, H.P., et al, [1993,eng] 48-2281
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] 48-3796

Poland

Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] 48-5571
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988

Polar atmospheres

1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514
1992 Arctic Leads Experiment: an overview of the meteorology. Wolfe, D.E., et al, [1993,eng] 48-2126
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] 48-2584
Ab initio characterization of ClOOH: implications for atmospheric chemistry. Lee, T.J., et al, [1993,eng] 48-2316
Abstracts. International Symposium on the Ecological Effects of Arctic Airborne Contaminants, Reykjavik, Iceland, Oct. 4-8, 1993, [1993,eng] 48-796
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] 48-5497
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] 48-5451
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] 48-5477
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] 48-5483
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] 48-5480
Airborne studies of ocean-particle-cloud-interactions in the Arctic. Hobbs, P.V., [1993,eng] 48-2646
Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] 48-5457
Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Antarctic ozone hole-atmospheric circulation relation. Angell, J.K., [1993,eng] 48-287
Antarctic ozone hole: recent topics. Ito, T., [1993,jpn] 48-2436
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] 48-4014
Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] 48-1755
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
Arctic stratospheric chemistry—winter 1989-90. Fiedler, M., et al, [1993,eng] 48-950
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] 48-1140
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Atmospheric ozone study (Ozone-90). Zaĭtseva, N.A., ed, et al, [1993,rus] 48-2483
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] 48-2461
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-964
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] 48-3122
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Case study in forecasting the stratospheric vortex during EASOE. Carver, G.D., et al, [1994,eng] 48-5500
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] 48-3059
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] 48-631
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] 48-3047

Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] **48-4016**
Comparative antarctic ozone spectrophotometry. Nichol, S.E., et al, [1993,eng] **48-1360**
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] **48-199**
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] **48-626**
Comparison of observed and modeled stratospheric water vapor. Mote, P.W., et al, [1993,eng] **48-636**
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] **48-230**
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] **48-229**
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] **48-3913**
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] **48-194**
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] **48-5441**
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] **48-3900**
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] **48-959**
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] **48-3133**
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] **48-4697**
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] **48-5439**
Dynamics of total ozone content in Antarctica. Radionov, V.F., et al, [1993,rus] **48-2485**
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] **48-5487**
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] **48-2477**
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] **48-4048**
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] **48-4844**
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] **48-4845**
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] **48-2579**
Experimental study of growth and phase change of polar stratospheric cloud particles. Hallett, J., et al, [1992,eng] **48-3698**
Features of polar regions relevant to tropospheric ozone chemistry. Barrie, L.A., [1993,eng] **48-3046**
Features of the variations in total ozone over the North Atlantic in summer. Dolgin, M.I., et al, [1993,rus] **48-2489**
Fluctuations of the atmospheric circulation and climate changeability of polar regions. Vanda, IU.A., et al, [1994,eng] **48-3849**
Formation of regions with extreme ozone values at high latitudes in the northern hemisphere. Shalamianskiĭ, A.M., et al, [1993,rus] **48-2490**
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] **48-5502**
Global change and arctic sea ice. Lemke, P., [1993,eng] **48-183**
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] **48-190**
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] **48-4049**
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] **48-5479**
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] **48-5030**
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] **48-5481**
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] **48-5484**
Halocarbons in the arctic and antarctic atmosphere. Sturges, W.T., [1993,eng] **48-3053**
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] **48-3061**
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] **48-3730**
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] **48-3151**
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] **48-3476**
Himalayas: a third polar region. Bahadur, J., [1993,eng] **48-2784**
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] **48-3056**
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] **48-4441**
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] **48-3050**
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] **48-2575**
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] **48-4846**
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] **48-2580**
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] **48-4596**
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] **48-5507**
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] **48-2491**
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] **48-5456**
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] **48-5478**
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] **48-5475**
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] **48-3811**
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] **48-629**
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] **48-1116**
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] **48-3680**
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] **48-4595**
Investigation of stratospheric ozone in the Arctic with the aid of a ground-based microwave spectrum analyzer. Kulikov, IU.IU., et al, [1993,rus] **48-2496**
Investigation of the heterogeneous decomposition of ozone on materials typical for atmospheric aerosol particles. Il'in, S.D., et al, [1993,rus] **48-2495**
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] **48-2474**
Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] **48-1857**
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] **48-201**
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] **48-4066**
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] **48-202**
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] **48-2146**
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] **48-4693**
Laboratory simulations of polar stratospheric clouds. Marti, J.J., [1994,eng] **48-3552**
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] **48-1856**
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] **48-5461**
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] **48-5498**
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] **48-5474**
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] **48-5473**
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] **48-5467**
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] **48-5464**
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] **48-1232**
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] **48-949**
Major results from SAGE II. Poole, L.R., et al, [1993,eng] **48-3732**
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] **48-5455**
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] **48-3054**
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] **48-1818**
Measurements of ozone concentration in the atmospheric boundary layer over the Weddell Sea, Antarctica. IUrganov, L.M., [1993,rus] **48-2488**
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] **48-339**
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] **48-197**
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] **48-1834**
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] **48-3897**
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] **48-4619**
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] **48-3049**
Microphysical, optical, and radiation characteristics of arctic aerosol. Sokolik, I.N., [1993,eng] **48-1754**
Microwave sounding of antarctic stratospheric ozone content. Waters, J.W., et al, [1993,eng] **48-962**
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] **48-630**
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] **48-3147**
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] **48-4642**
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] **48-3037**
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] **48-3733**
Modulation of the atmospheric annual cycle in the Southern Hemisphere. Hurrell, J.W., et al, [1994,eng] **48-4927**
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] **48-5443**
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] **48-3150**
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] **48-2582**
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] **48-3149**
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] **48-3052**
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] **48-5459**
Northern and southern hemispheric polar lows—a comparative study. Rasmussen, E.A., [1993,eng] **48-2101**
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] **48-5493**
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] **48-5309**
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] **48-193**
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] **48-5448**
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] **48-3145**
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] **48-2493**
Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] **48-3901**
Organic acids and selected nitrogen species for ABLE-3. Talbot, R.W., [1991,eng] **48-4856**
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] **48-1861**
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] **48-5438**
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] **48-3051**
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] **48-3296**
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] **48-5447**
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] **48-2585**
Ozone mixing in the antarctic polar vortex. Bowman, K.P., et al, [1993,eng] **48-965**
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] **48-4013**
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] **48-3895**
Periodic temperature inversions in the arctic troposphere. Nagurnyĭ, A.P., et al, [1993,eng] **48-1825**
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] **48-5490**
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] **48-5491**
Photochemical mechanism of the spring anomaly in the stratospheric ozone in Antarctica. Deminov, I.G., [1993,rus] **48-2492**
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] **48-2315**
Polar atmosphere nitrous oxide morphology during AASE II. Podolske, J.R., et al, [1993,eng] **48-2583**
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] **48-3057**
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] **48-4725**
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] **48-1649**
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] **48-4706**
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] **48-5119**
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] **48-5469**
Polar sunrise studies. Bottenheim, J.W., [1993,eng] **48-3048**
Possible role of ice crystals in ozone destruction of the lower arctic atmosphere. Curry, J.A., et al, [1993,eng] **48-3899**
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] **48-2589**
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] **48-200**
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] **48-3134**
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] **48-3731**
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] **48-3045**
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] **48-1741**
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] **48-3461**

Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196
Rapid descent of mesospheric air into the stratospheric polar vortex. Fisher, M., et al, [1993,eng] 48-627
Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] 48-5509
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Recent changes in arctic temperature inversions. Bradley, R.S., et al, [1993,eng] 48-1469
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Report of a 1990 polar stratospheric aerosol cloud. Yue, G.K., et al, [1994,eng] 48-4442
Report on polar low workshop. Rasmussen, E.A., et a', [1993,eng] 48-2459
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3190
Results of measurements of negative ion concentration in the Arctic stratosphere. Ermakov, V.I., et al, [1993,rus] 48-2494
Results of total ozone measurements over Heiss Island in winter, 1989. Dorokhov, V.M., [1993,rus] 48-2487
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] 48-1425
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] 48-2475
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] 48-1710
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] 48-3146
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of North Polar atmospheric chemistry. Douglass, A., et al, [1993,eng] 48-628
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] 48-5132
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] 48-2952
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] 48-305
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] 48-4483
Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] 48-5453
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Springtime stratospheric water vapour in the southern hemisphere as measured by MLS. Harwood, R.S., et al, [1993,eng] 48-625
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] 48-4067
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] 48-624
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Stratospheric ozone variations in the European Arctic: Taalas, P., et al, [1994,eng] 48-5442
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] 48-5449
Study of ozone anomalies over the Molodezhnaya Station in the spring of 1990. Butko, A.L., et al, [1992,eng] 48-1243
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989. Khattatov, V.U., et al, [1993,rus] 48-2486
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] 48-1790
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] 48-5482
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] 48-5492
Transport of radon between South America and the Antarctic Peninsula. Pereira, E.B., et al, [1993,eng] 48-4539
Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] 48-4594
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986. Karol', I.L., et al, [1993,rus] 48-2484
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] 48-191
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050
U.S. arctic research in a technological age. Johnson, P.L., [1992,eng] 48-2041
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] 48-3161
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] 48-2125
Upper-atmosphere aerosols: properties and natural cycles. Turco, R.P., [1992,eng] 48-4860
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Variations of tropospheric ozone concentration at Syowa Station. Aoki, S., [1993,jpn] 48-2442
Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] 48-5501
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
Winds at the North Pole. Johnson, M., et al, [1993,eng] 48-2218
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586

Polar deserts
See [also]: Deserts

Polar equipment
See [also]: Equipment

Polar regions
German report to SCAR No.15, 1993. Germany. Scientific Committee on Antarctic Research and International Arctic Science Committee, [1993,eng] 48-4243
Halogenated hydrocarbons in polar macroalgae. Laturnus, F., [1993,ger] 48-2243
High latitudes: a history of Swedish polar travels and research. Liljequist, G.H., [1993,eng] 48-1811
How the Cold Regions database covers polar oceanography. Hibben, S.G., [1994,eng] 48-5093
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Interferometer measurements of O_3, HNO_3 and $ClONO_3$ over the Arctic. Von Clarmann, T., et al, [1993,eng] 48-3640
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] 48-988
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] 48-4381
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] 48-994
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] 48-5043
Studies of dynamical processes affecting the distribution of stratospheric ozone. Bowman, K.P., [1993,eng] 48-1901
U.S. antarctic research report to SCAR No.33, 1991. National Research Council. Polar Research Board, [1994,eng] 48-4242
Workshop on study of polar atmosphere and cryosphere, report. Kanzawa, H., [1993,jpn] 48-1185
See [also]: Arctic landscapes

Polar stratospheric clouds
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] 48-5483
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] 48-5480
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Antarctic ozone hole: recent topics. Ito, T., [1993,jpn] 48-2436
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] 48-4014
Arctic stratospheric chemistry—winter 1989-90. Fiedler, M., et al, [1993,eng] 48-950
Atmospheric ozone study (Ozone-90). Zaĭtseva, N.A., ed, et al, [1993,rus] 48-2483
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] 48-631
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] 48-4697
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] 48-5439
Effects of aircraft exhaust on polar atmospheric chemistry. Pitari, G., et al, [1993,eng] 48-2477
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] 48-2579
Experimental study of growth and phase change of polar stratospheric cloud particles. Hallett, J., et al, [1992,eng] 48-3698
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] 48-3730
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] 48-4441
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] 48-2580
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] 48-3811

Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] 48-629
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] 48-3680
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] 48-4693
Laboratory simulations of polar stratospheric clouds. Marti, J.J., [1994,eng] 48-3552
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] 48-2431
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] 48-339
Microwave sounding of antarctic stratospheric ozone content. Waters, J.W., et al, [1993,eng] 48-962
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Model of heterogeneous nucleation on ice surfaces. Tabazadeh, A., et al, [1993,eng] 48-188
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] 48-2582
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] 48-3145
Photochemical mechanism of the spring anomaly in the stratospheric ozone in Antarctica. Deminov, I.G., [1993,rus] 48-2492
Physical chemistry of the H2SO4/HNO3/H2O system. Molina, M.J., et al, [1993,eng] 48-330
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] 48-4700
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] 48-5119
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] 48-5469
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Report of a 1990 polar stratospheric aerosol cloud. Yue, G.K., et al, [1994,eng] 48-4442
Response of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] 48-1476
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] 48-1361
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] 48-5463
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] 48-5468
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] 48-5449
Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989. Khattatov, V.U., et al, [1993,rus] 48-2486
Sulfate aerosols and polar stratospheric cloud formation. Tolbert, M.A., [1994,eng] 48-3734
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] 48-5492
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] 48-5462
Upper-atmosphere aerosols: properties and natural cycles. Turco, R.P., [1992,eng] 48-4860
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586

Polarization (charge separation)
Charging of snow particles in blizzard. Shio, H., [1991,eng] 48-3681
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] 48-2859
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] 48-4263
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] 48-983

Polarization (waves)
3-dimensional scattering functions of ice crystals and depolarization effects. Rockwitz, K.D., [1989,eng] 48-1473
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] 48-2885
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] 48-3673
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] 48-1213
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021

Pollen
Late glacial climatic change in British Columbia. Mathewes, R.W., [1985,eng] 48-2726
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
See [also]: Palynology

Pollution
Applications of Geographic Information Systems to the analysis of arctic contaminants. Palmer, H.D., et al, [1993,eng] 48-4558
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States. Wakeford, B., ed, et al, [1993,eng] 48-2707
Hazardous waste strategy for communities in Canada's Northwest Territories. Kent, R.J., et al, [1994,eng] 48-3356
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512
Special problems in the polar region and the monitoring and assessment to be done by AMAP. Reiersen, L.-O., [1993,eng] 48-4511
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska. Racine, C.H., et al, [1993,eng] 48-3792
See [also]: Air pollution; Fallout; Impurities; Oil spills; Snow impurities; Soil pollution; Thermal pollution; Water pollution

Polycrystalline ice
See [also]: Ice crystals

Polygonal topography
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,chi] 48-4396
See [also]: Patterned ground

Polymers
Anti-icing coating compositions. Murase, H., [1989,eng] 48-1872
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] 48-4659
Cement incorporating polymers as a phase change agent. Salyer, I.O., et al, [1986,eng] 48-1520
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Dynamic study of common well screen materials. Hewitt, A.D., [1993,eng] 48-719
Dynamic tensile strength of glass fiber reinforced pultruded composites. Dutta, P.K., et al, [1994,eng] 48-3267
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites. Madhukar, M.S., et al, [1994,eng] 48-5150
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] 48-5015
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskii, I.N., ed, [1991,rus] 48-1910
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] 48-4167
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Tires with polymer composition and silica filler. Rauline, R., [1993,eng] 48-4367
Tribology of frost-resistant antifriction materials. Cherskii, I.N., et al, [1994,eng] 48-3980
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112

Polynyas
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] 48-1291
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] 48-2914
International Arctic Polynya Program. Legendre, L., [1990,eng] 48-4666
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] 48-2139
Lead distribution in the sea ice area in the Sea of Okhotsk and the Arctic. Enomoto, H., et al, [1990,eng] 48-4679
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] 48-3461
Satellite observations of ice/ocean eddies in the Okhotsk Sea. Wakatsuchi, M., et al, [1990,eng] 48-4674
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] 48-1943
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459
Sea-ice features interpreted in a combination of multi sensor data. Ono, N., [1990,jpn] 48-4878
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Thermal structure of the Cosmonaut Polynya region in the Antarctic. Takizawa, T., et al, [1993,eng] 48-1059
See [also]: Ice openings

Ponds
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
Freshwater diatoms from high arctic ponds. Douglas, M.S.V., et al, [1993,eng] 48-2697
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142

Pontoon bridges
Clearing ice for bridging operations. Diemand, D., [1994,eng] 48-5425

Porosity
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] 48-2862

Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] **48-391**
Characteristics of cryogenic weathering of hard rocks, such as dolerites. Gurevich, V.M., [1992,rus] **48-4784**
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] **48-2733**
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] **48-3249**
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] **48-1601**
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] **48-3635**
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] **48-4368**
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] **48-5289**
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] **48-3836**
Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] **48-1005**
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] **48-3624**
Influence of pore characteristic on deformation during material freezing. Wang, J.C., et al, [1993,chi] **48-1432**
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] **48-3223**
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] **48-3193**
Measuring the compressive strength of ice. Kovacs, A., [1993,eng] **48-3494**
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] **48-4837**
Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] **48-2342**
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] **48-2430**
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] **48-603**
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] **48-437**
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] **48-5110**
Porosity effects on measured strength of warm ice. Fransson, L., et al, [1993,eng] **48-89**
Pressure influence on pore characteristic of frozen soils. Wang, J.C., et al, [1992,chi] **48-1410**
Pressure influence on pore characteristics of frozen soils. Wang, J.C., et al, [1993,eng] **48-5244**
Structure and frost resistance of centrifuged concrete with admixtures. Ivanov, F.M., et al, [1989,rus] **48-307**
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] **48-1247**
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] **48-3587**
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] **48-2852**
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] **48-5160**

Porous materials
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] **48-2866**
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] **48-3318**
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] **48-447**
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] **48-753**
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] **48-2060**
Effects of a porous medium in a flow passage with miter bend. Ichimiya, K., et al, [1993,eng] **48-869**
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] **48-4814**
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] **48-2573**
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] **48-5015**
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] **48-602**
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] **48-2574**
Ice structure size in frozen agar gels analyzed by mercury porosimetry. Bae, S.K., et al, [1993,eng] **48-3624**
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] **48-3591**
Influence of pore characteristic on deformation during material freezing. Wang, J.C., et al, [1993,chi] **48-1432**
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] **48-477**
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] **48-5191**
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] **48-1614**
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] **48-417**
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] **48-2429**
Physics of liquid water in frozen powders and soils. Fu, H.Y., et al, [1993,eng] **48-5209**
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] **48-754**
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] **48-2591**
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] **48-2455**
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] **48-4154**
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] **48-697**

Portable equipment
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] **48-2885**
Antarctic career move for ageing torpedo. Anderson, I., [1993,eng] **48-3626**
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] **48-1884**
Carbon monoxide hazard in sub-antarctic exploration. Gill, R.M.F., [1994,eng] **48-5122**
Climbing ice. Chouinard, Y., [1978,eng] **48-1930**
Design for the cold start-up of a man-portable fuel cell and hydrogen storage system. Ward, C.A., et al, [1993,eng] **48-1837**
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al, [1994,eng] **48-3118**
Inflatable rucksack for avalanche survival. Rodger, I., [1994,eng] **48-3272**
Modern snow and ice techniques. March, B., [1984,eng] **48-1958**
Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] **48-2468**
Portable radar for ice thickness measurements. Toikka, M., et al, [1994,eng] **48-3103**
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] **48-4656**

Portable shelters
Carbon monoxide hazard in sub-antarctic exploration. Gill, R.M.F., [1994,eng] **48-5122**
Personal Arctic Survival Kit (PASK) field trials. Dick, R.A., et al, [1992,eng] **48-5104**

Ports
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] **48-2097**
Development of the sink-and-float type ice boom. Imaizumi, A., et al, [1993,jpn] **48-1046**
Experimental study on the overtopping of breakwaters by ice floes and waves. Saeki, H., et al, [1993,eng] **48-156**
Ice control in northern harbors. Saeki, H., [1992,eng] **48-1534**
Preventive measures against pack ice damage to marine resources and fishery facilities. Enoki, K., et al, [1994,eng] **48-3951**
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] **48-3993**
Ships' navigability in the ice-infested waters around the port of Abashiri. Narita, S., et al, [1990,jpn] **48-4676**
Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] **48-1126**
Study on ice management by the air bubble method. Yamanaka, K., et al, [1993,jpn] **48-1045**
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskiĭ, A.V., et al, [1989,rus] **48-310**

Power line icing
2D and 3D modelling of ice accretion on wires. Porcú, F., et al, [1993,eng] **48-818**
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] **48-851**
Aerodynamic torque in snow accretion on transmission lines. Poots, G., et al, [1993,eng] **48-819**
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] **48-3964**
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] **48-811**
Comparison of selected models for estimating cable icing. McComber, P., et al, [1993,eng] **48-816**
Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] **48-841**
Data analysis of icing measurements in Iceland. Elíasson, Á.J., et al, [1993,eng] **48-845**
Development of a new type of silicone rubber phase spacer. Kato, J., et al, [1993,eng] **48-849**
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] **48-3809**
Effect of density variations in models of rime ice accretion on overhead line conductors. Skelton, L., et al, [1993,eng] **48-820**
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] **48-832**
Effects of polluted atmospheric ice on power line conductivity. Fikke, S.M., et al, [1993,eng] **48-1829**
Electric performance of nonceramic phase-to-phase spacers for 275 kV transmission lines. Oura, N., et al, [1993,eng] **48-850**
Estimating icing amounts caused by freezing precipitation in Canada. Yip, T.C., [1993,eng] **48-821**
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] **48-813**
Field data on transmission line icing collected at the Mount Valin test site. Druez, J., et al, [1994,eng] **48-3020**
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1993,eng] **48-4342**
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] **48-3163**
Hungarian icing activity survey. Krómer, I., [1993,eng] **48-808**
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1993,eng] **48-4341**
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] **48-4263**
Ice accumulation characteristics on Hydro-Quebec HV insulators. Drapeau, J.F., et al, [1993,eng] **48-846**
Ice detector prediction of transmission line ice loads in northwestern Iceland. Ryerson, C.C., et al, [1993,eng] **48-840**
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] **48-2022**
Ice load measurements on overhead line conductors. Poots, G., et al, [1993,eng] **48-827**
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] **48-829**
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] **48-615**
Iceload investigations on insulators and aerial warning balls for overhead lines. Greisert, K., et al, [1993,eng] **48-833**
Icing on insulator string of HV transmission lines and its harmfulness. Su, F.H., et al, [1993,eng] **48-4339**
Insulation properties of atmospheric iced insulators installed in high mountains. Sugawara, N., et al, [1993,eng] **48-848**
Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] **48-843**
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] **48-810**
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] **48-4231**
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] **48-4229**
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] **48-4230**
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] **48-4241**
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] **48-4232**
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] **48-4228**
Method to estimate icing loads on overhead lines. Pezard, J., [1993,eng] **48-831**
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] **48-834**
Monitoring of snow and ice accretion on overhead line test spans. Wareing, J.B., et al, [1993,eng] **48-836**
Observation of ice load of transmission line in Hungary. Csomor, M., et al, [1993,eng] **48-824**
Observations on falling of ice from conductor of transmission line. Csomor, M., et al, [1993,eng] **48-814**
Overhead electric line poles protection against mechanical overloads. Goia, L.M., et al, [1993,eng] **48-844**
Pilot field project to evaluate icing models in Ontario, Canada. Krishnasamy, S.G., et al, [1993,eng] **48-823**
Prediction of ice loads on a mast using general weather data. Sundin, E., [1994,eng] **48-5573**
Prediction of snow storms and snow accretion on power lines. Sasyo, Y., et al, [1993,jpn] **48-3168**
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] **48-807**
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] **48-835**
Protection of antennas on telecommunication masts and towers for atmospheric icing. Stöttrup-Andersen, U., [1993,eng] **48-852**
Protection of overhead line conductors against mechanical overloads. Goia, L.M., [1993,eng] **48-837**
Rosemount freezing rain sensor. Stein, P., [1993,eng] **48-828**
Snow loads on transmission and distribution lines in Alaska. Peabody, A.B., [1993,eng] **48-842**
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] **48-812**
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] **48-809**
Warning system for snow accretion on power lines. Wakamatsu, K., et al, [1993,eng] **48-838**
Wet snow models for estimating snow load on power lines. Sakamoto, Y., et al, [1993,eng] **48-830**
Wind and ice load monitoring on a test line. Haldar, A.K., et al, [1993,eng] **48-839**
Wind speed effect on transmission line icing. Csomor, M., et al, [1993,eng] **48-815**
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] **48-826**
Withstand voltage and flashover performance of iced insulators. Sugawara, N., et al, [1993,eng] **48-847**

Power line supports
AC flashover performance of ice-coated post insulators. Farzaneh, M., et al, [1993,eng] **48-851**

Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] 48-841
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] 48-3809
Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] 48-843
Overhead electric line poles protection against mechanical overloads. Goia, L.M., et al, [1993,eng] 48-844

Power lines

Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
See [also]: Transmission lines

Power supply

See [also]: Electric power; Nuclear power; Wind power generation

Precast concretes

Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual. Timofeev, A.I., et al, [1991,rus] 48-1266
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956

Precipitation gages

Classification of the various types and characteristics of snowfall sensor. Tamura, M., [1993,jpn] 48-3182
Density of newly fallen snow along the coast of the Japan Sea. Yamada, Y., [1993,jpn] 48-4233
Estimation method of newly fallen snow depth. Yamada, Y., [1993,jpn] 48-4234
Evaluation of precipitation gauges for measuring precipitation on mountainous watersheds. Hanson, C.L., [1990,eng] 48-1568
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] 48-2855
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland. Johnson, R.C., et al, [1990,eng] 48-1569
Need for removing biases from rain and snowgage measurements. Legates, D.R., [1993,eng] 48-1804
Precipitation intensity and type determined by light attenuation technique. Lundberg, A., et al, [1994,eng] 48-3963
Road weather data collection instruments. Ueda, S., [1986,jpn] 48-257
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
"True snowfall": an evaluation of the double fence intercomparison reference gauge. Yang, D., et al, [1993,eng] 48-2934

Precipitation (meteorology)

1990 temperature and precipitation during Northern Wetlands Study. Mortsch, L.D., [1994,eng] 48-4602
Activity of Be-7 and Pb-210 in snow samples at Terra Nova Bay-Antarctica: preliminary results. Bettoli, M.G., et al, [1993,eng] 48-4541
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] 48-4713
Arrival date of stable snow cover and the extent of cold period precipitation in the Ili-Balkhash basin. Gal'ster, N.V., [1992,rus] 48-4467
Atmospheric circulation and weather and climate background in the Wudaoliang region. Jiang, H., et al, [1992,chi] 48-1484
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] 48-5145
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] 48-3497
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] 48-2842
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Chemical composition of precipitation in a prealpine area of eastern Switzerland. Langenegger, O., [1990,eng] 48-1593
Climates of the world. Martyn, D., [1992,eng] 48-2709
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Climatic waves of precipitation in the mountains of southeastern Kazakhstan for the past 100 years. Putilina, N.M., et al, [1992,rus] 48-4470
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] 48-2360
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
Development of a meteorological forecast for snow accumulation on transmission lines. Ito, T., et al, [1993,eng] 48-2836
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Disaggregation models of seasonal streamflow forecasts. Grygier, J., et al, [1993,eng] 48-2955
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] 48-2145
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Drought in Greenland?. Jezek, K.C., [1993,eng] 48-1120
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Estimation of monthly precipitation by geographical factors and meteorological variables. Yamada, K., [1990,eng] 48-1588
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] 48-4853
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] 48-2369
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] 48-2855
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Investigations of the precipitation conditions in the central part of the Tianshan mountains. Blumer, F.P., [1990,eng] 48-1586
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] 48-1495
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] 48-4108
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4851
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Measuring precipitation over the ocean. Bauer, P., et al, [1993,eng] 48-3645
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
Method of determining winter and summer precipitation with the aid of OSK-2 summary precipitation measurements. Cherkasov, P.A., et al, [1992,rus] 48-4459
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland. Johnson, R.C., et al, [1990,eng] 48-1569
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Multiyear variation of annual and seasonal totals of precipitation and their relation to air temperature. Sudakov, P.A., et al, [1992,rus] 48-4460
Need for removing biases from rain and snowgage measurements. Legates, D.R., [1993,eng] 48-1804
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Numerical simulation of the climatic change caused by CO2 doubling. Wang, H.J., et al, [1993,eng] 48-768
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] 48-5230
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Parameterization of clouds in large-scale numerical models. Sundqvist, H., [1993,eng] 48-1882
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] 48-1682
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] 48-2786
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] 48-200
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] 48-2787
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] 48-4645
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] 48-608
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] 48-2929
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] 48-1679
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] 48-1598
Sixty years o research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] 48-1718
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] 48-2952
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Snow-ice reserves and the hydroclimatic regime in the mountain regions of Kazakhstan. Severskiĭ, I.V., ed, [1992,rus] 48-4452
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359

Snowy year from coast to coast. Ludlum, D.M., [1994,eng] 48-3324
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] 48-2792
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Teleconnections and glacier mass balance. Fogarasi, S., et al, [1988,eng] 48-2545
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Use of vorticity parameters to forecast winter precipitation Moore, J.T., et al, [1993,eng] 48-313
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
See [also]: Hail; Rain; Snowfall

Preserving
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] 48-2236
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
See [also]: Storage

Pressure
Approximate evaluation of the stress state of unrated sections of a main gas pipeline. Sosin, T.S., et al, [1990,rus] 48-52
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
See [also]: Atmospheric pressure; Ice pressure; Soil pressure; Vapor pressure; Water pressure; Wind pressure

Pressure ridges
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Computation of sheet ice and ridge ice forces on a faceted cone. Wang, Z., et al, [1993,eng] 48-152
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Experimental study of pressure ridge modeling and indentation tests. Tsuchida, Y., et al, [1993,jpn] 48-1032
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Method for evaluation of first-year ice hummock strength. Surkov, G.A., et al, [1993,eng] 48-4336
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] 48-144
Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al, [1993,eng] 48-1057
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] 48-1557
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Strength parameters of hummocks: field observations and laboratory tests. Truskov, P.A., et al, [1993,eng] 48-1033

Prestressed concretes
Prestressed cryogenic concrete. A review of testing in Spain Elices, M., [1982,eng] 48-5395
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396

Prevention
See [also]: Countermeasures

Primary productivity
See [also]: Biomass

Probes
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] 48-2431
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756

Production
See [also]: Manufacturing

Profiles
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] 48-5451
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] 48-5480
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] 48-4014
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Changes in the longitudinal profiles of glaciers during advance and retreat. Schwitter, M.P., et al, [1993,eng] 48-3584
Correlation of Greenland ice-core and ice-margin *delta*^{18}O records. Reeh, N., et al, [1993,eng] 48-4200
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] 48-5502
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] 48-5456
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] 48-3201
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Modelling of glacier mass balance. Oerlemans, J., [1993,eng] 48-4183
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] 48-5448
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] 48-4013
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] 48-5490
Polar atmosphere nitrous oxide morphology during AASE II. Podolske, J.R., et al, [1993,eng] 48-2583
Probable deep winter convection in Fram Strait. Bogorodskii, P.V., et al, [1992,eng] 48-1767
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] 48-2116
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Spectrometry of nitric acid in the winter arctic stratosphere: Spreng, S., et al, [1994,eng] 48-5453
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] 48-5449
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] 48-5496
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586
See [also]: Soil profiles; Stratigraphy

Projectile penetration
Air-deliverable, ice-penetrating sonobuoy. Feltz, L.V., et al, [1991,eng] 48-3664
Autonomous rapid thermal ice penetrating method and system. Andersen, J.K., et al, [1991,eng] 48-2249
Ice penetrating moored mine. Humphrey, S.A., [1990,eng] 48-2262
Influence of low temperature on energy absorption in laminated composites. Dutta, P.K., et al, [1993,eng] 48-2061
Pellet injection technology. Combs, S.K., [1993,eng] 48-1762
Stress waves through graphite/epoxy laminated plates. Hui, D., et al, [1993,eng] 48-2063

Projects
See [also]: Research projects

Propellers
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
Aircraft propeller with electric deicers. Bowser, A.J., et al, [1991,eng] 48-2247
Azimuth thrusters in ice breaking technology. Savikurki, J., et al, [1993,eng] 48-110
Effect of radial dynamic responses on the service life of sterntube bearings in icebreakers. Muramovich, V.G., et al, [1993,rus] 48-3763
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Hydrodynamic problems of propellers for icebreaking ships. Alekseev, IU.N., et al, [1993,eng] 48-120
Ice cutting experiments with propeller blades. Veitch, B., [1994,eng] 48-5627
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Interaction between ice and propeller. Jussila, M., et al, [1991,eng] 48-4892
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Microwave deicing for aircraft engine propulsor blades. Martin, A.N., [1991,eng] 48-2222
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] 48-4298
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Propeller-ice impact process. Veitch, B., et al, [1993,eng] 48-123
Root damage analysis of aircraft engine blade subject to ice impact. Reddy, E.S., et al, [1992,eng] 48-4882
Rudder/propulsion device arrangements on icegoing vessels. Bäckström, M., et al, [1993,eng] 48-102
RV *Nathaniel B. Palmer* winter ice tests in Antarctica: ice-propeller interaction. Cowper, D.N.B., et al, [1993,eng] 48-3335
Simulation of ice cutting by propeller blades, part 1. Beliashov, V.A., [1993,eng] 48-87
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] 48-605
Transient response model of low-speed diesel engine in icebreaking cargo vessels. Larmi, M., [1993,eng] 48-3647

Prospecting
See [also]: Electromagnetic prospecting; Exploration; Seismic surveys; Surveys

Protection
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
Cross-type clamp to join snow net cables. Bolliger, R., [1993,eng] 48-1284
Protective system against icebergs or floating objects. Mogridge, G.R., et al, [1993,eng] 48-1516
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836
Wear element for a scraping operation. Bain, R.L., et al, [1993,eng] 48-1283
See [also]: Bank protection (waterways); Countermeasures; Environmental protection; Frost protection; Slope protection; Soil stabilization

Protective coatings
Anti-icing coating compositions. Murase, H., [1989,eng] 48-1872
Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876
Durable surface coatings for rubber articles e.g. wiper blades and seal packings. Hirokawa, Y., et al, [1993,eng] 48-5523
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252

Icing-preventing coating film for cooling plate. Showa Aluminum Corporation, [1993,eng] **48-4430**
Proposal of proper choice of ice tolerant coating films. Arita, M., et al, [1993,jpn] **48-1042**
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] **48-5314**
Restoration of masonry facades, renders and final coats in a severe climate. Waldum, A.M., [1993,eng] **48-1225**
Structure to prevent snow- and ice-adhesion e.g. to railway vehicle. Kansai Paint Company Ltd, [1993,eng] **48-4434**
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] **48-4271**
Tribology of frost-resistant antifriction materials. Cherskiĭ, I.N., et al, [1994,eng] **48-3980**

Protective vegetation
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] **48-1383**
See [also]: Forest strips; Snow hedges

Proton transport
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] **48-4703**
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] **48-946**
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] **48-4925**
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] **48-2216**
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] **48-5385**
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] **48-2092**
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] **48-945**
Variation of interatomic distances in ice VIII to 10 GPa. Besson, J.M., et al, [1994,eng] **48-5021**

Protons
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] **48-1215**

Pumps
Application of a snow water mixture transport system for urban areas. Isobe, K., et al, [1988,jpn] **48-561**
Development of a circulation-type snow removal drain system. Sato, Y., [1989,jpn] **48-705**
Effects of groundwater samplers on water quality: a literature review. Parker, L.V., [1993,eng] **48-2608**
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] **48-3379**

Quarries
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] **48-2563**
Mining impact on permafrost hydrology. Klimovskiĭ, I.V., et al, [1993,eng] **48-522**

Quaternary deposits
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] **48-929**
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] **48-2016**
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] **48-2727**
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] **48-4245**
Canadian alpine glacier fluctuations and tree ring records. Luckman, B.H., [1993,eng] **48-4702**
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] **48-1748**
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] **48-5059**
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] **48-2720**
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] **48-503**
Climatic implications of Laurentide ice sheet instability. Clark, P.U., [1994,eng] **48-3326**
...ting of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] **48-3131**
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] **48-3804**
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing. Guo, X.D., et al, [1993,chi] **48-4590**
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] **48-1015**
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] **48-1248**
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] **48-3575**
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] **48-1927**
Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka). Korolev, S.IU., [1993,eng] **48-2610**
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] **48-476**
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] **48-5013**
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] **48-3935**
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] **48-345**
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] **48-1218**
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] **48-5062**
Lacustrine paleoenvironmental records from Baffin Island. Miller, R.J.O., [1993,eng] **48-3529**
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] **48-2015**
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] **48-5065**
Late Quaternary moraines of the Ngojumba Glacier, Khumbu Himal, eastern Nepal. Nagaoka, S., et al, [1990,jpn] **48-3424**
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] **48-1007**
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] **48-3327**
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] **48-3549**
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] **48-4945**
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] **48-5141**
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] **48-2725**
Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] **48-2878**
Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] **48-531**
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] **48-1887**
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] **48-3233**
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] **48-4828**
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] **48-456**
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] **48-2020**
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] **48-633**
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] **48-5047**
Nonlinear paleoclimatic variability from Quaternary records. Yiou, P., et al, [1993,eng] **48-4204**
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] **48-535**
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] **48-2566**
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] **48-2728**
On the study of nival deposits in Yakutia. Kunitskiĭ, V.V., [1993,eng] **48-524**
Origin of dislocations in frozen sediments of the Yamal Peninsula. Velikotskiĭ, M.A., [1992,rus] **48-1394**
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] **48-3798**
Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] **48-2879**
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] **48-972**
Paleoecology of glacial deposits, Baffin I., NWT. Morgan, A.V., et al, [1993,eng] **48-1219**
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] **48-1499**
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] **48-1008**
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] **48-1010**
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] **48-4946**
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] **48-1148**
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] **48-2205**
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] **48-4947**
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] **48-1923**
Quaternary geology and geocryology in Nunavik, Canada. Allard, M., et al, [1993,eng] **48-350**
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] **48-5639**
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] **48-3934**
Quaternary glacial and environmental changes in the region of Hoh Xil, Qinghai Province. Li, S.J., et al, [1992,chi] **48-2011**
Quaternary glaciations in the Altai Mountains of China. Cui, Z.J., et al, [1992,chi] **48-2014**
Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] **48-4991**
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] **48-5640**
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] **48-5305**
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] **48-4207**
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991,ger] **48-3658**
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] **48-3610**
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] **48-5638**
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] **48-4266**
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] **48-5011**
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] **48-3797**
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] **48-1925**
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] **48-1926**
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] **48-2562**
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] **48-1224**
Systematization of the concepts related to Quaternary deposits and to their gravitational slope processes. Korzhenevskiĭ, B.I., [1992,rus] **48-3726**
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] **48-3796**
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] **48-3129**
Till geochemistry and ice flow data, central Newfoundland (NTS 12A/10, 12A/15, 12A/16, 12H/1). Klassen, R.A., [1994,eng] **48-4121**
Till in the marine environment. King, L.H., [1993,eng] **48-5014**
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] **48-5012**
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] **48-3236**

Radar
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar. Yankielun, N.E., et al, [1993,eng] **48-3492**
Building the DEW line. Walker, C.W., [1957,eng] **48-289**
Construction on the DEW line. Cheever, M.S., [1957,eng] **48-291**
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] **48-11**
Design and construction of short range radar stations in the Canadian Arctic. Sanderson, K.J., [1994,eng] **48-3350**
Examples of radar observations of snowfall in Hokuriku. Yoshino, F., et al, [1989,jpn] **48-667**
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] **48-494**
Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al, [1992,eng] **48-2622**
Portable FM-CW radar for collecting the ground truth data of snowpack. Sasaki, M., et al, [1993,eng] **48-1723**
Portable radar for ice thickness measurements. Toikka, M., et al, [1994,eng] **48-3103**
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] **48-3774**
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] **48-209**
Radar experiments on ice stream B. Bentley, C.R., et al, [1992,eng] **48-2620**
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] **48-251**
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] **48-1915**
Siting the DEW line radar stations. Brannian, J.D., [1957,eng] **48-290**
See [also]: Airborne radar; Side looking radar; Synthetic aperture radar

Radar echoes
95-GHz polarimetric radar measurements of orographic cap clouds. Pazmany, A., et al, [1994,eng] **48-2885**
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] **48-3673**
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] **48-3576**
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] **48-2465**
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] **48-3585**
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] **48-4175**
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] **48-4055**
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] **48-2842**
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] **48-1229**
Cirrus ice crystal measurements. Matrosov, S.Y., [1993,eng] **48-3644**
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] **48-4474**
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] **48-3594**

Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Design of a scanning, spaceborne radar altimeter for measuring polar ice. Jensen, J.R., et al, [1993,eng] 48-1722
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] 48-4471
Fractal characterization of radar echoes from icebergs. Lo, T., et al, [1993,eng] 48-933
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery. Fahnestock, M.A., et al, [1993,eng] 48-1670
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] 48-494
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Ice depolarization during rainfall events. Maekawa, Y., et al, [1994,eng] 48-4214
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] 48-4037
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] 48-5423
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Monitoring the motion of an antarctic ice stream. Goldstein, R.M., et al, [1993,eng] 48-1669
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] 48-1466
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] 48-1682
Phase change from cloud droplets to snow particles. Wada, M., [1993,eng] 48-1680
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polarized radar discrimination of mixed precipitation. Zrnić, D.S., et al, [1994,eng] 48-2325
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] 48-1322
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1700
Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] 48-2645
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] 48-3301
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] 48-2595
Radar detection of internal folding of antarctic ice streams. Jacobel, R.W., et al, [1993,eng] 48-3579
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] 48-209
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Radar ice thickness measurements in north Victoria Land. Druivenga, G., et al, [1993,eng] 48-2708
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] 48-752
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] 48-2064
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Radar survey of cirrus cloud structure. Matrosov, S.Y., et al, [1993,eng] 48-927
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] 48-1679
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Sea ice altimeter processing scheme at the EODC. Laxon, S.W., [1994,eng] 48-4036
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Snowfall rate and supercooled liquid water content. Adams, W.M., et al, [1993,eng] 48-1725
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Suppression of sea-ice clutter and detection of targets. Chikara, S., et al, [1990,jpn] 48-4684
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050
Unusual radar echoes from the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-538
Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1687

Radar photography
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] 48-1713
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] 48-131
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Millimeter wave system for landing aircraft in snowstorm. Huguenin, G.R., [1990,eng] 48-2163
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] 48-752
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] 48-1511
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] 48-5136
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] 48-3933

Radar reflections
See [also]: Radar echoes

Radar tracking
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729
Development of automatic antenna elevation angle setting at Doppler radar observation. Oi, M., [1992,jpn] 48-3217
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
ERS-1 radar altimetry of the Filchner-Ronne Ice Shelf. Heidland, K., et al, [1992,eng] 48-248
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice observation on a platform in Bohai Sea. Yue, Q.J., et al, [1994,eng] 48-5557
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468
Interferometric SAR data analysis on Ronne Ice Shelf. Reinhold, A., et al, [1992,eng] 48-249
Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] 48-3450
Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] 48-3157
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] 48-3455
Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery. Emery, W., et al, [1993,eng] 48-3281
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] 48-3447

Radiance
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Analysis of infrared imagery over the Ronne Ice Shelf. Bamber, J.L., et al, [1992,eng] 48-247
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] 48-4998
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] 48-1475
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412
Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] 48-1323
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234

Radiant heating
Characteristics of heat exchanger for melting of piled snow. Aoki, K., et al, [1993,eng] 48-876
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Field measurement of heat losses from hot water district heating systems. Phetteplace, G., [1993,eng] 48-2068
Frost free heat exchanger. Roberts, F.J., et al, [1989,eng] 48-4084
Heat losses from operating hot water district heating systems. Phetteplace, G., [1993,eng] 48-2069
Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] 48-4122
New heating concept for Inuit housing. Lim, H.T., [1979,eng] 48-4143
Radiative melting of ice in a rectangular dimple. Ohta, I., et al, [1993,eng] 48-896

Radiation
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] 48-740
See [also]: Gamma irradiation; Infrared radiation; Light (visible radiation); Microwaves; Radio waves; Solar radiation; Thermal radiation; Ultraviolet radiation

Radiation absorption
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] 48-3599
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] 48-2004
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] 48-4474
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] 48-5154
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] 48-2827
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] 48-5028

Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Ice-cloud depolarization of backscatter for CO_2 and other infrared lidars: comment. Hall, F.F., Jr., [1994,eng] 48-4276
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Monitoring glaciers to detect climatic change. Oerlemans, H., [1989,eng] 48-2568
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] 48-2051
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] 48-2052
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] 48-4957
Spectral extinction coefficient of sea ice. Kishigami, H., et al, [1993,jpn] 48-1078
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] 48-4483
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Radiation balance
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] 48-3206
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088
Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] 48-3343
General theory of Plio-Pleistocene climatic change. Saltzman, B., et al, [1993,eng] 48-2808
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] 48-3586
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] 48-3037
Modeling of cirrus bidirectional reflectances. Brogniez, G., et al, [1993,eng] 48-2988
Modelling ice sheet and climate changes through the ice ages. Budd, W.F., et al, [1993,eng] 48-4195
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] 48-2989
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] 48-4671
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337
Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993 eng] 48-196
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641
Single scattering by non-spherical ice particles. Macke, A., [1993,eng] 48-2991
Snow cover effect in spring. Groisman, P.IA., et al, [1994,eng] 48-2553
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Study of the small ice cap instability in the presence of fluctuations. Lee, W.H., [1994,eng] 48-3551
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610

Radiation measurement
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
Reduction of terrestrial gamma rays by snow cover. Sakamoto, R., et al, [1990,jpn] 48-3675
See [also]: Radiometry

Radiation measuring instruments
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Snow and soil moisture-reserve measuring device. Abelentsev, V.V., et al, [1992,eng] 48-4072
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413

Radio beacons
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Microwave locator of objects buried in snow. Fitzgerald, L., [1994,eng] 48-3276
Microwave locator of objects buried in snow. Stanford, M., [1994,eng] 48-3275
Millimeter wave system for landing aircraft in snowstorm. Huguenin, G.R., [1990,eng] 48-2163

Radio echo soundings
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Airborne electromagnetic mapping of ice thickness in the Baltic Sea. Hautaniemi, H., et al, [1994,eng] 48-5592
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] 48-1704
Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] 48-3435
Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] 48-1065
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] 48-3484
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al, [1994,eng] 48-4766
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Helicopter-borne radio-echo sounding of Svartisen, Norway. Kennett, M., et al, [1993,eng] 48-1295
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] 48-2400
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] 48-3441
Impurity concentrations inferred from radio echo sounding. Corr, H., et al, [1991,eng] 48-10
Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Mass balance and changes of surface slope of a Spitsbergen glacier. Etzelmüller, B., et al, [1993,eng] 48-3415
Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] 48-3436
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] 48-1466
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-1716
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] 48-251
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444
Subsurface scattering and ice sheet altimetry. Davis, C.H., [1993,eng] 48-1709

Radio towers
See [also]: Towers

Radio waves
Electromagnetic wave propagation in saline permafrost. Fediukin, I.V., et al, [1993,eng] 48-381
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] 48-4645
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] 48-2470
See [also]: Microwaves

Radioactive age determination
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Causal implications of last deglaciation for the Younger Dryas. Broecker, W.S., et al, [1988,eng] 48-1748
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] 48-4990
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Evidence for climatic conditions between ca. 900-1300 A.D. in the southern Canadian Rockies. Luckman, B.H., [1994,eng] 48-4971
From $^{14}C/^{12}C$ measurements towards radiocarbon dating of ice. Van de Wal, R.S.W., et al, [1994,eng] 48-3838
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Glacial geological evidence for the medieval warm period. Grove, J.M., et al, [1994,eng] 48-4970
Glacial Lake Agassiz meltwater influx into Lake Michigan. Colman, S.M., et al, [1994,eng] 48-4951
Heinrich events in the Labrador Sea. Andrews, J.T., et al, [1993,eng] 48-4188
Heinrich events: triggers of ocean circulation change?. Broecker, W., et al, [1993,eng] 48-4187
Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] 48-604
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Holocene glacier-climate relations in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627
Holocene ice stream advance, Hudson Strait. Kaufman, D.S., et al, [1993,eng] 48-2340
Holocene moraine chronology on Spitsbergen. Werner, A., [1993,eng] 48-3800
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] 48-3339
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Late Quaternary (stage 2 and 3) meltwater and Heinrich events, northwest Labrador Sea. Andrews, J.T., et al, [1994,eng] 48-3327
Late Weichselian glaciation history of the northern North Sea. Sejrup, H.P., et al, [1994,eng] 48-4945
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141

Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] 48-2878
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] 48-4828
Moraine formation at a Svalbard site. Ronnert, L., et al, [1993,eng] 48-633
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008
Patagonian glacial evidence for Little Ice Age warm period. Villalba, R., [1994,eng] 48-4972
Pleistocene ice sheet variations in central Canada. Hodgson, D.A., [1994,eng] 48-4946
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Postglacial emergence of Ungava Peninsula, Quebec. Gray, J.T., et al, [1993,eng] 48-2205
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] 48-3310
Quaternary changes of the Taylor Glacier. Marchant, D.R., et al, [1994,eng] 48-4947
Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] 48-4991
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Radiocarbon dating from an Alpine glacier forefield. Slupetzky, H., et al, [1991,ger] 48-3658
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
There is direct evidence for Pleistocene collapse of the West Antarctic ice sheet. Scherer, R., [1993,eng] 48-3604
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236

Radioactive fallout

See [also]: Fallout

Radioactive isotopes

^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
^{228}RA as a tracer for shelf water in the Arctic Ocean. Van der Loeff, M.M.R., et al, [1993,eng] 48-4544
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] 48-4540
Activity of Be-7 and Pb-210 in snow samples at Terra Nova Bay-Antarctica: preliminary results. Bettoli, M.G., et al, [1993,eng] 48-4541
Adsorption of long-lived radionuclides on sediment from the Kara Sea. Fuhrmann, M., et al, [1993,eng] 48-4564
Anthropogenic ^{129}I in the Kara Sea. Raisbeck, G.M., et al, [1993,eng] 48-4526
Criteria of radiation and seismic safety of underground nuclear tests. Dumik, V.P., et al, [1993,eng] 48-4547
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}PA. Scholten, J.C., et al, [1993,eng] 48-4545
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991. Roos, P., et al, [1993,eng] 48-4530
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity in the Arctic and Antarctic; proceedings. International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993, [1993,eng] 48-4510
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Evaluation of environmental radiational consequences after hypothetical accident on Kola nuclear power plant. Baklanov, A.A., [1993,eng] 48-4565
Glacier mass balance estimated by radioactive layers. Lefauconnier, B., et al, [1994,eng] 48-5173
Impact of Chernobyl accident on the Kola Peninsula radiation conditions. Semenov, A., [1993,eng] 48-4560
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991). Tubertini, O., et al, [1993,eng] 48-4534
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556
Migration of plutonium in arctic terrestrial ecosystems. Jaakkola, T., et al, [1993,eng] 48-4562
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,eng] 48-4532
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Radioecology of the northern and northwestern part of Russia. Aleksakhin, R.M., et al, [1993,eng] 48-4563
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] 48-4546
Sellafield as a source of radioactivity to the Barents Sea. Kershaw, P.J., et al, [1993,eng] 48-4531
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean. Cochran, J.K., et al, [1993,eng] 48-4543
Transport of radon between South America and the Antarctic Peninsula. Pereira, E.B., et al, [1993,eng] 48-4539
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542

Radioactive labeling

See [also]: Isotopic labeling

Radioactive wastes

Anthropogenic ^{129}I in the Kara Sea. Raisbeck, G.M., et al, [1993,eng] 48-4526
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726
Atomic "glow" of the North. Ramzaev, P.V., [1992,rus] 48-1270
Compacting and freeze concentration of radioactive wastes. Husseiny, A.A., [1991,eng] 48-2229
Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers. Chumichev, V.B., et al, [1993,eng] 48-4523
Data bases and map of units of radiational risks in Russian Arctic. Baklanov, A., et al, [1993,eng] 48-4552
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991. Roos, P., et al, [1993,eng] 48-4530
Dumping of radioactive wastes into the sea environment: scientific and practical aspects. Kuznetsov, IU.V., et al, [1993,eng] 48-4513
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Environmental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean. Nikitin, A.I., et al, [1993,eng] 48-4524
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. Baxter, M.S., et al, [1993,eng] 48-4519
IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. Sjoeblom, K.L., et al, [1993,eng] 48-4518
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Ice pellets and decontamination. Manificat, A., et al, [1993,fre] 48-3280
Impact of a repository on permafrost development during glaciation advance. Vallander, P., et al, [1991,eng] 48-4761
Key Lake spill. Final report.[1984,eng] 48-3677
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556
Nevada—Novaya Zemlya. Matushchenko, A.M., et al, [1992,rus] 48-1268
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,eng] 48-4532
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528
Radioactive contamination of topsoil in the lower reaches of Techa River in the Urals. Pozolotina, V., et al, [1993,eng] 48-4527
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] 48-4546
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident. Salbu, B., et al, [1993,eng] 48-4566
Seabed sources of radionuclides in the dumped reactor compartment of atomic icebreaker *Lenin*. Sivintsev, IU., [1993,eng] 48-4516
Sellafield as a source of radioactivity to the Barents Sea. Kershaw, P.J., et al, [1993,eng] 48-4531
Survey of artificial radionuclides in the Kara Sea. Strand, P., et al, [1993,eng] 48-4514
System of radioecological monitoring for sunken nuclear submarine. Lisovskii, I.V., [1993,eng] 48-4515
Transfer of reprocessing wastes from NW Europe to the Arctic. Kershaw, P.J., et al, [1993,eng] 48-4521
Transport of artificial radioactivity by the Ob' to the arctic seas. Vakulovskiĭ, S.M., [1993,eng] 48-4522
Where does all the Cs and Sr in Greenland waters come from. Dahlgaard, H., [1993,eng] 48-4525

Radioactivity

Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517
Evaluation of environmental radiational consequences after hypothetical accident on Kola nuclear power plant. Baklanov, A.A., [1993,eng] 48-4565
IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. Baxter, M.S., et al, [1993,eng] 48-4519
IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. Sjoeblom, K.L., et al, [1993,eng] 48-4518
Impact of Chernobyl accident on the Kola Peninsula radiation conditions. Semenov, A., [1993,eng] 48-4560
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] 48-3245
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991). Tubertini, O., et al, [1993,eng] 48-4534
Migration of plutonium in arctic terrestrial ecosystems. Jaakkola, T., et al, [1993,eng] 48-4562
Natural and artificial radioactivities in the Svalbard glaciers. Pinglot, J.F., et al, [1993,eng] 48-4550
New data on radionuclide content in the Barents Sea and on the shore. Matishov, D.G., et al, [1994,eng] 48-4277
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549
On computer simulation of atmospheric transport of radioactive tracers to the arctic ecosystem. Pudykiewicz, J.A., [1993,eng] 48-4559
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Radioecology of the northern and northwestern part of Russia. Aleksakhin, R.M., et al, [1993,eng] 48-4563
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] 48-4557
System of radioecological monitoring for sunken nuclear submarine. Lisovskii, I.V., [1993,eng] 48-4515
Thorium, uranium and plutonium in surface air at Vardö. Kolb, W., [1993,eng] 48-4548

Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542

Radiobiology

Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968

Radiocarbon dating

See [also]: Radioactive age determination

Radiometers

See [also]: Radiation measuring instruments

Radiometry

Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684

Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] 48-1795

Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297

Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504

Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] 48-5457

Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670

Analysis of visible and microwave satellite data for snow mapping in Alaska. Hall, D.K., et al, [1993,eng] 48-2937

Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301

Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349

Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066

Application of MOS-1 MSR data for sea ice study. Cho, K., et al, [1990,jpn] 48-4683

Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729

Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924

Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] 48-1291

Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344

Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891

Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] 48-4998

Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] 48-3229

Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324

Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590

Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354

Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011

Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820

Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321

Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308

Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016

Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] 48-4474

Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] 48-1353

CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608

Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006

Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] 48-2354

Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al., [1993,eng] 48-1311

Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] 48-1347

Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] 48-1805

Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319

Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414

Correction of radiometric distortions in snow cover imagery. Holecz, F., et al, [1993,eng] 48-1685

Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316

Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352

Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355

Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] 48-1683

Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348

Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] 48-1792

Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135

Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962

Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] 48-2927

Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340

Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087

Doppler radar retrieval of vertical profiles of cirrus parameters. Matrosov, S.Y., et al, [1994,eng] 48-4088

Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] 48-3075

Effect of land-cover type and season in microwave remote sensing of snow. Jääskeläinen, V., et al, [1995,eng] 48-1707

Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] 48-3758

ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] 48-4035

Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428

Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342

First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] 48-2017

First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] 48-4471

Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466

Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307

Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] 48-190

Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101

Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653

Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350

HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446

Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] 48-1698

Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578

IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678

Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846

Improving of microwave remote sensing of sea ice. Shi, Z.F., et al, [1993,eng] 48-1715

Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] 48-2217

Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111

Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201

Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095

LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997

Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296

Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] 48-632

Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] 48-3710

Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197

Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004

Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309

Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302

Measuring precipitation over the ocean. Bauer, P., et al, [1993,eng] 48-3645

Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215

Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436

Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377

Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480

Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] 48-3711

Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992

Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station. Gerber, L., et al, [1994,eng] 48-5460

Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613

MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] 48-1058

Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452

Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315

Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] 48-4472

New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874

Optical depths and haze particle sizes during AGASP III. Pilewskie, P., et al, [1993,eng] 48-3901

Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310

Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416

Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] 48-2871

Polar regions surface temperatures from Nimbus 7. Comiso, J.C., [1994,eng] 48-3305

Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647

Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292

Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333

Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351

Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] 48-1305

Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328

Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337

Radiometric profiles of antarctic winter clouds. Stone, R.S., [1993,eng] 48-196

Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] 48-1314

Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318

Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320

Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412

Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] 48-620

Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426

Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332

Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] 48-4123

Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] 48-1728

Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761

Remote sensing of frozen soils in VHF range. Komarov, S.A., et al, [1993,eng] 48-1726

Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] 48-4708

Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260

Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467

Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346

Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] 48-3304

Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293

Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326

Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228

SAR application calibration requirements. Brown, R.J., et al, [1993,eng] 48-1511

SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479

Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327

Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] 48-4027

Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762

Satellite measurements for studying the cryosphere. Rott, H., [1990,ger] 48-3126

Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298

Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226

Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery. Emery, W., et al, [1993,eng] 48-3281

Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] 48-1323

Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320

Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641
Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314
Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] 48-3462
Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
Snow area detection by using AVHRR/NOAA. Kazama, S., et al, [1993,eng] 48-1724
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] 48-1312
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] 48-1294
Surface state of subpolar glaciers from satellite data. Lefauconnier, B., et al, [1991,fre] 48-3713
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] 48-1772
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] 48-1300
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] 48-4330
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586
See [also]: Radiation measuring instruments

Radomes
Study on snow attaching to the TACAN antenna. Kuwahara, Y., et al, [1994,eng] 48-4215

Rafting
See [also]: Ice rafting

Railroad cars
Structure to prevent snow- and ice-adhesion e.g. to railway vehicle. Kansai Paint Company Ltd, [1993,eng] 48-4434

Railroad subgrades
See [also]: Subgrades

Railroad tracks
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600

Railroad tunnels
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] 48-2597
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] 48-2598
Prospective railroad construction under the Bering Strait. Kudoiarov, L.I., [1994,eng] 48-4771

Railroads
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] 48-3405
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432
Railway construction and environmental protection in permafrost. Zheng, Q.P., [1993,eng] 48-5263
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Technical assessment of maglev system concepts. Lever, J.H., [1993,eng] 48-295
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256
See [also]: Baykal Amur railroad

Railways
See [also]: Railroads

Rain
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] 48-137
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Ice depolarization during rainfall events. Maekawa, Y., et al, [1994,eng] 48-4214
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Measurements during rain on snow. Conway, H., et al, [1994,eng] 48-3273
Physical processes in snowpacks during rain or melt events. Conway, H., [1994,eng] 48-2698
Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] 48-2929
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] 48-3655

Ravines
See [also]: Gullies

Reactions
See [also]: Photochemical reactions

Reclamation
See [also]: Land reclamation

Reconnaissance
See [also]: Aerial surveys; Infrared reconnaissance; Photographic reconnaissance

Recording
Monitoring vibrations in a nuclear icebreaker. Lattka, A.L., et al, [1990,ger] 48-3929
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] 48-4162

Recording instruments
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176

Records (extremes)
Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] 48-3497
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] 48-2723
Particulars of weather and ice conditions in the Arctic in 1991. Kuraiov, V.K., et al, [1992,eng] 48-731
Seasonal snowfall statistics for selected stations.[1988,eng] 48-3495
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Temperature extremes. Hickcox, D.H., [1994,eng] 48-3325
Weather extremes. Schmidli, R.J., [1991,eng] 48-3708

Recycling
See [also]: Heat recovery; Oil recovery; Sewage treatment; Waste treatment

Reflection
See [also]: Seismic reflection

Reflectivity
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Dielectric anisotropy in ice Ih at 9.7 GHz. Fujita, S., et al, [1993,eng] 48-1335
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] 48-1294
See [also]: Albedo; Brightness

Reforestation
See [also]: Forestry; Revegetation

Refraction
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
See [also]: Seismic refraction

Refractivity
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376

Refrigeration
Development of refrigerating cycling bath. Hou, Z.J., et al, [1993,chi] 48-1460
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Increasing icemaking efficiency by continuous solidification. Bojette, M.D., et al, [1993,eng] 48-2506
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] 48-2214
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815
See [also]: Cooling systems; Ice refrigeration

Refuse
See [also]: Wastes

Regelation
BAS hot water drill: development and current design. Makinson, K., [1993,eng] 48-2739
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] 48-1321
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Plastic flow, pressure melting and other mechanisms in the deformation of ice I. Barnes, P., [1968,eng] 48-4001
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391

Regional planning
Arctic perspectives.[1992,eng] 48-1810
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-2122
Changing circumpolar north: opportunities for academic development. Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992, [1994,eng] 48-4403
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] 48-4236
Earthquake Alaska—are we prepared. Combellick, R.A., ed, et al, [1994,eng] 48-5035
Future aspects of cities in snowy region. Izumi, M., et al, [1993,jpn] 48-1977
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994, [1994,eng] 48-4404
New political and scientific trends in the Arctic. Rogne, O., [1993,eng] 48-121
Oil and hazardous substance contingency plan for Alaska. Lauenberger, C., et al, [1993,eng] 48-3717
Polar research. Strategy and action plan 1993-1997. Denmark. Kommissionen for Videnskabelige Undersøgelser i Grønland (Commission for Scientific Research in Greenland), [1992,dan] 48-5271
Problems of power and transport industries in the Asian polar regions of Russia. Bredikhin, V.I., et al, [1994,eng] 48-3949
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] 48-2770
Regional development and the problems of sea ice in Hokkaido. Osanai, S., et al, [1994,eng] 48-3993
Regional economy along the Okhotsk Sea in Hokkaido. Furuya, A., et al, [1994,eng] 48-3992
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Snow avalanches and the settlement of Langtang village, Nepal Himalaya. Watanabe, T., [1989,jpn] 48-3124
Technological, environmental and legal issues in northern development. Lange, M.A., [1994,eng] 48-3995

Regolith
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993

Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] **48-990**
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] **48-1100**
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] **48-923**
Ice in the Martian regolith. Squyres, S.W., et al, [1992,eng] **48-5041**
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] **48-1606**
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] **48-2996**
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] **48-989**
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] **48-2057**
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] **48-1508**
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] **48-754**
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] **48-1750**
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] **48-1607**
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] **48-1605**
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] **48-1214**

Reinforced concretes

Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] **48-5397**
Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual. Timofeev, A.I., et al, [1991,rus] **48-1266**
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] **48-5391**
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] **48-2080**
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] **48-2093**
Practice of reinforced concrete strip foundation in permafrost region. Men, Z.H., [1993,chi] **48-4493**
Practice of reinforced concrete strip foundation in permafrost regions. Men, Z.H., [1993,eng] **48-5228**
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] **48-5390**
Relation between snow and damage on external wall of reinforced concrete construction. Tashiro, K., et al, [1993,jpn] **48-1983**

Relaxation (mechanics)

Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] **48-2367**
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] **48-2998**
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1992,chi] **48-1415**
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1993,eng] **48-5250**
See [also]: Ice relaxation

Relief

See [also]: Microrelief; Topographic features

Remanence

See [also]: Remanent magnetism

Remanent magnetism

Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] **48-4568**
See [also]: Rock magnetism

Remote sensing

Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] **48-4831**
Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] **48-1795**
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] **48-2504**
Applications of Geographic Information Systems to the analysis of arctic contaminants. Palmer, H.D., et al, [1993,eng] **48-4558**
Cirrus ice crystal measurements. Matrosov, S.Y., [1993,eng] **48-3644**
CLAES south-looking aerosol observations for 1992. Mergenthaler, J.L., et al, [1993,eng] **48-631**
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] **48-1820**
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] **48-1321**
Cloud ice effects on downward atmospheric longwave radiation. Uttal, T., et al, [1994,eng] **48-4474**
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] **48-2886**
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] **48-992**
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] **48-2354**
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] **48-1311**
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] **48-1316**
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] **48-1792**
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] **48-135**
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] **48-1340**
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] **48-2145**
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] **48-1338**
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] **48-2108**
Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] **48-3758**
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] **48-4035**
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] **48-4484**
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] **48-5028**
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] **48-4695**
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al, [1994,eng] **48-3927**
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] **48-1336**
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] **48-3618**
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude. Kovacs, A., et al, [1993,eng] **48-1004**
Forecasting snowmelt volume from remote sensing data. Mushiake, N., et al, [1993,eng] **48-1681**
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] **48-4109**
Geophysical field area fraction estimation. Key, J.R., [1993,eng] **48-2161**
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] **48-190**
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] **48-1101**
Greenland ice sheet surface properties and ice dynamics from ERS-1 SAR imagery. Fahnestock, M.A., et al, [1993,eng] **48-1670**
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] **48-2058**
History of Hobson's Choice Ice I. Jeffries, M.O., et al, [1993,eng] **48-898**
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] **48-1226**
Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] **48-2217**
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] **48-4930**
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] **48-4712**
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] **48-4285**
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] **48-5461**
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] **48-928**
Lidar of ice crystals associated with noctilucent clouds. Thomas, L., et al, [1994,eng] **48-4694**
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] **48-3197**
Major results from SAGE II. Poole, L.R., et al, [1993,eng] **48-3732**
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] **48-5423**
Methanol ice in the protostar GL 2136. Skinner, C.J., et al, [1992,eng] **48-3617**
Microwave and optical measurements of sea ice. Goeckel, D.L., et al, [1993,eng] **48-1089**
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] **48-2215**
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] **48-2377**
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] **48-4830**
Model for remote sensing of anisotropic layers. Nghiem, S.V., et al, [1993,eng] **48-2408**
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] **48-1788**
Movement and decay of the tabular iceberg A-24. Hawkins, J.D., et al, [1993,eng] **48-328**
New views for antarctic glaciology. Bindschadler, R.A., [1993,eng] **48-772**
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] **48-2381**
Optical measurements. Hökedal, J., et al, [1992,eng] **48-2906**
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] **48-1310**
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] **48-2871**
Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] **48-4928**
Polar regions surface temperatures from Nimbus 7. Comiso, J.C., [1994,eng] **48-3305**
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] **48-3757**
Polarimetric search for ice crystals in the upper atmosphere of Venus. Können, G.P., et al, [1993,eng] **48-1213**
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] **48-4833**
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] **48-2499**
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] **48-1322**
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] **48-1292**
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] **48-3301**
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] **48-4648**
Radar backscattering from ice crystals. Dungey, C.E., et al, [1993,eng] **48-2595**
Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] **48-1314**
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] **48-1318**
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] **48-1320**
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] **48-620**
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] **48-2057**
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] **48-4557**
Remote sensing analysis of Victoria Land ice shelves and ice tongues. Frezzotti, M., [1992,ita] **48-3288**
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] **48-3010**
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] **48-4708**
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] **48-2467**
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] **48-1346**
Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] **48-3304**
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] **48-1293**
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] **48-1228**
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] **48-1508**
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] **48-1511**
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] **48-5135**
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] **48-5137**
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] **48-2475**
Sea ice scenes from polarimetric SAR data. Lee, J.S., et al, [1992,eng] **48-3241**
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] **48-1339**
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] **48-2631**
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] **48-1312**
Snow cover effect in spring. Groisman, P.IA., et al, [1994,eng] **48-2553**
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] **48-985**
Snow hydrology. Nakatsugawa, M., et al, [1994,eng] **48-4931**
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] **48-1787**
Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] **48-1596**
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] **48-1750**
Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] **48-4483**
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] **48-4067**
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] **48-3234**
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] **48-2363**
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] **48-3933**
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] **48-2502**
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] **48-4652**
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] **48-764**
Synthesis of remote sensing data on Wilkins Ice Shelf, Antarctica. Vaughan, D.G., et al, [1993,eng] **48-1325**
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] **48-1357**

Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Reporting
See [also]: Ice reporting

Rescue equipment
Arctic survival equipment testing and analysis. Dick, R.A., et al, [1992,eng] 48-5105
Avalanche flotation ball. Manix, T.J., [1990,eng] 48-2167
Cold weather marine survival guide. Canadian Coast Guard. Arctic Ship Safety, [1993,eng] 48-3999
Inflatable rucksack for avalanche survival. Rodger, I., [1994,eng] 48-3272
Microwave locator of objects buried in snow. Fitzgerald, L., [1994,eng] 48-3276
Microwave locator of objects buried in snow. Stanford, M., [1994,eng] 48-3275
Personal Arctic Survival Kit (PASK) field trials. Dick, R.A., et al, [1992,eng] 48-5104
Study on arctic survival, life saving equipment and navigation. Canadian Coast Guard. Arctic Ship Safety, [1991,eng] 48-4000

Rescue operations
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] 48-2127
Avalanche handbook. McClung, D.M., et al, [1993,eng] 48-1945
Avalanche safety for skiers & climbers. Daffern, T., [1992,eng] 48-1933
Cold weather marine survival guide. Canadian Coast Guard. Arctic Ship Safety, [1993,eng] 48-3999
Emergency readiness in heavy snow region. Part 2. Takahashi, A., et al, [1993,jpn] 48-1979
Glacier travel and crevasse rescue. Selters, A., [1990,eng] 48-1934

Research institutions
See [also]: Laboratories

Research projects
1992 Arctic Leads Experiment: an overview of the meteorology. Wolfe, D.E., et al, [1993,eng] 48-2126
1993 Council Meeting, Abisko, Sweden. Report. International Arctic Science Committee, [1993,eng] 48-298
1994 IASC meeting report. International Arctic Science Committee, [1994,eng] 48-4644
34th Japanese Antarctic Research Expedition in 1992-1994. Sato, N., [1993,jpn] 48-2434
37th Soviet Antarctic Expedition (SAE). Uranov, E.N., [1992,eng] 48-739
5 years operational experience with the Swedish icebreaker *Oden*. Backman, A., [1994,eng] 48-4306
Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] 48-1764
Activities within the Aurora Programme—Field season 1991/92. Kristensen, M., [1992,eng] 48-252
Adaption to permafrost in the Canadian north: present and future. Woo, M.K., et al, [1992,eng] 48-2033
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Alpine glaciers—memories and mirrors of civilization and a mountain environment. Vivian, R., [1989,fre] 48-1819
Annual report—1993. National Snow and Ice Data Center. World Data Center-A for Glaciology, [1993,eng] 48-1369
Applications of data base technology in frozen soil researches. Xia, Z.Y., [1993,chi] 48-4397
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Arctic Monitoring and Assessment Program (AMAP). Lange, M.A., [1993,eng] 48-3323
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-1464
Arctic research of the United States, Vol.7. U.S. Interagency Arctic Research Policy Committee, [1993,eng] 48-2122
Arctic research vessel design would expand science prospects. Elsner, R., et al, [1993,eng] 48-2160
Arctic sciences program research summaries, 1992. Fondrk, J., ed, et al, [1993,eng] 48-1463
Arctic specimen bank catalogue: holdings of fauna and flora in Canada and the United States. Wakeford, B., ed, et al, [1993,eng] 48-2707
Arctic system science: a plan for integration. Arctic Research Consortium of the United States (ARCUS), [1993,eng] 48-1140
Arctic yesterday and today. Kiselev, IU.G., et al, [1992,rus] 48-2741
Avalanche control technology: a growing industry in France. Penniman, D., [1990,eng] 48-2361
Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed, et al, [1992,eng] 48-2694
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] 48-3122
Biennial report 1991/92. Bundesanstalt für Geowissenschaften und Rohstoffe. Federal Institute for Geosciences and Raw Materials, [1993,ger] 48-3646
British Antarctic Survey report for 1992-1993. British Antarctic Survey, [1993,eng] 48-3821
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Canadian SARES project within the framework of the Canada-Japan Complementarity Study. Legendre, L., [1993,eng] 48-1072
Changing circumpolar north: opportunities for academic development. Circumpolar Universities Cooperation Conference, 3rd, Rovaniemi, Finland, Nov. 30-Dec. 3, 1992, [1994,eng] 48-4403
Citation analysis of ice-structure interaction conference papers. Muhonen, A., [1994,eng] 48-5566
Climate research in the former Soviet Union. Ellingson, R.G., et al, [1993,eng] 48-2744
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] 48-1278
CRREL retrospective 1986-1991. U.S. Army Cold Regions Research and Engineering Laboratory, [1992,eng] 48-2132
CRREL's first 25 years, 1961-1986. U.S. Army Cold Regions Research and Engineering Laboratory, [1986,eng] 48-2070
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] 48-4380
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
European project COST 309, road weather conditions. Nysten, E., [1993,eng] 48-1203
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
Experience of inland travel of JARE-33. Yamauchi, H., [1993,jpn] 48-2440
Filchner-Ronne Ice Shelf programme, Report No.5 (1991). Miller, H., ed, et al, [1991,eng] 48-1
Filchner-Ronne Ice Shelf programme, Report No.6 (1992). Oerter, H., ed, [1992,eng] 48-233
Final report of Operation Deep Freeze '91 (1990-91). U.S. Naval Support Force Antarctica, [1991,eng] 48-1531
First Soviet-American oceanographic expedition in the Chukchi Sea (CHOEX/ICE-90). Sen'ko, N.P., [1992,eng] 48-737
Geography meetings, research, and education in the United States. Shi, Y.F., [1993,chi] 48-4570
German report to SCAR No.15, 1993. Germany. Scientific Committee on Antarctic Research and International Arctic Science Committee, [1993,eng] 48-4243
GISP2 completes coring of Greenland ice sheet. Morrison, M.C., [1993,eng] 48-773
Glacial meteorology at the University of Innsbruck. Kuhn, M., [1990,ger] 48-3125
Glaciological investigations in the Italian National Antarctic Research Program. Orombelli, G., [1992,ita] 48-3289
Global change policy for Alaska. Cole, H., [1992,eng] 48-2042
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] 48-1781
High latitudes: a history of Swedish polar travels and research. Liljequist, G.H., [1993,eng] 48-1811
History of research on Novaya Zemlya. Nikandrov, O.M., et al, [1993,rus] 48-1906
History of snow sciences in North America. Mergen, B., [1993,eng] 48-2942
Hokkaido University Institute of Low Temperature Science. Fujino, K., [1987,jpn] 48-278
Hydrographers get to know icebergs. Kazanskii, M.M., [1993,rus] 48-1905
IASC as legal basis for international arctic cooperation. Machowski, J., [1993,eng] 48-5000
Ice core drilling in central Greenland. Moore, J.C., [1993,eng] 48-3322
Ice loads on multifaceted conical structures. Croasdale, K.R., et al, [1993,eng] 48-138
Ice observations in the western Weddell Sea. Darling, M.N., et al, [1992,eng] 48-3772
Ice technology—advancing slowly.[1992,eng] 48-3224
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] 48-4302
Icebreaker M/S Fennica—Finnish shipbuilding know-how at its best. Lindqvist, R., [1993,eng] 48-2339
Improving winter pavement performance. Darling, M., et al, [1993,eng] 48-2328
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] 48-4235
Inland traverse of JARE-33 in 1992. Kamiyama, K., [1993,jpn] 48-2439
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology.[1994,eng] 48-2482
International Arctic Buoy Project.[1993,eng] 48-3320
International Arctic Polynya Program. Legendre, L., [1990,eng] 48-4666
Issues in Canadian permafrost research. Burn, C.R., et al, [1993,eng] 48-692
Japanese expedition to Spitsbergen 1991-1992. Takahashi, S., et al, [1993,eng] 48-1857
Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] 48-1426
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] 48-2124
Management plan for the Cape Roberts Project. Davey, F.J., [1992,eng] 48-2324
MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] 48-1815
Model tests of a small icebreaker. Shigematsu, S., et al, [1994,eng] 48-4298
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
Nepal-Japan cooperation in research on glaciers and climates of the Nepal Himalaya. Higuchi, K., [1993,eng] 48-2769
New political and scientific trends in the Arctic. Rogne, O., [1993,eng] 48-181
New research vessel for arctic research. Alexander, V., [1993,eng] 48-1027
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] 48-4381
Oil spill research in the Cold Environment Laboratory at SINTEF NHL. Johannessen, B.O., et al, [1994,eng] 48-4923
On the way: anti-icing instead of deicing. Mergenmeier, A., [1994,eng] 48-4256
Operation Deep Freeze 92/93 end of season report. U.S. Naval Support Force Antarctica, [1993,eng] 48-1663
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
Outline of the Japanese Arctic Glaciological Expedition (JAGE) in 1991-1992. Watanabe, O., et al, [1993,eng] 48-1861
Overview of research on snow in Alaska. Benson, C.S., [1993,eng] 48-1801
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Polar research. Strategy and action plan 1993-1997. Denmark. Kommissionen for Videnskabelige Undersøgelser i Grønland (Commission for Scientific Research in Greenland), [1992,dan] 48-5271
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] 48-3774
RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] 48-1915
Recent trends and prospect of Italian glaciological research. Smiraglia, C., [1993,ita] 48-4112
Recent trends in research on snow and ice disaster prevention. Nakamura, T., [1987,jpn] 48-275
Report of R/V cruises in Barents and Greenland Seas. Vinje, T., [1992,eng] 48-2896
Report of summer team of the 33rd JARE, 1991-92. Sano, M., [1992,jpn] 48-2444
Report of the IAHR Working Group on Ice Forces on Structures. Wessels, E., [1992,eng] 48-1561
Report of the Software Distribution Subcommittee Working Group on Ice Forces on Structures. McKenna, R.F., [1992,eng] 48-1562
Report of the U.S. Arctic Research Commission, 1992-1993. U.S. Arctic Research Commission, [1994,eng] 48-3120
Report of wintering team of JARE-33 in 1991-1993. Fukuchi, M., [1993,jpn] 48-2438
Report of wintering team of the 32nd JARE, 1990-92. Fujii, Y., [1992,jpn] 48-2445
Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293
Reports on antarctic climate research (I). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3183
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3190
Research developments in sophisticated automation technology for snow removal in cold regions. Sayama, S., et al, [1989,jpn] 48-676
Research on permafrost and periglacial processes in mountain areas—status and perspectives. Haeberli, W., [1993,eng] 48-5184
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction. Onoda, M., [1987,jpn] 48-274
Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost. Cheng, G.D., et al, [1993,chi] 48-4569
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] 48-276
Rotorcraft aviation icing research requirements: research review and recommendations. Peterson, A.A., et al, [1981,eng] 48-1145
Sawauchi Village Institute of Snow Country Culture. Takahashi, T., [1989,jpn] 48-673
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] 48-1274
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] 48-3319
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction. Curtin, T.B., ed, [1991,eng] 48-1480
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] 48-1560

SHRP research on snow and ice control. Minsk, L.D., [1993,eng] 48-1191
Site of Special Scientific Interest, Antarctica. Kanda, H., [1992,jpn] 48-2446
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Snow and ice in the publications of the Canadian Institute, 1852-1914. Adams, P., [1993,eng] 48-2943
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al, [1992,eng] 48-3773
Snow research at Lanzhou Institute of Glaciology and Geocryology. Yang, D.Q., [1993,eng] 48-1800
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
State Key Laboratory of Frozen Soil Engineering, 1993. Lanzhou Institute of Glaciology and Geocryology, [1993,chi] 48-2130
Stratigraphic drilling off Cape Roberts in the Ross Sea. Keys, H.J.R., [1994,eng] 48-5103
Study of global change. International Council of Scientific Unions, [1989,eng] 48-2365
Summer activities of JARE-34 in 1992-1993. Naruse, R., [1993,jpn] 48-2441
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-1809
Theoretical support for the Airborne Antarctic Ozone Experiment. Final report. Hartmann, D.L., [1992,eng] 48-3818
Towards a permafrost information and data system. Barry, R.G., et al, [1993,eng] 48-353
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192
U.S. antarctic research report to SCAR No.33, 1991. National Research Council. Polar Research Board, [1994,eng] 48-4242
U.S. arctic research in a technological age. Johnson, P.L., [1992,eng] 48-2041
UNIS—a new aspect of arctic education. Jørgensen, T.S., [1994,eng] 48-3994
United States Antarctic Program. Science Program Plan 1991-92. U.S. National Science Foundation, [1991,eng] 48-3822
United States Antarctic Program. Science Program Plan 1992-93. U.S. National Science Foundation, [1992,eng] 48-2656
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] 48-2125
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] 48-5416
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079
World-class icebreaker: the Canadian *Polar*-8. Brigham, L.W., [1986,eng] 48-2337
See [also]: Low temperature research; Military research

Research vessels
See [also]: Oceanographic ships

Reservoirs
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] 48-5548
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Cold time operation improvement of the Bucharest water supply intake. Iamandi, C., et al, [1994,eng] 48-3960
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Deformations of shoreline slopes of reservoirs in permafrost regions. Gogolev, E.S., [1992,rus] 48-4781
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] 48-529
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs. Kharchenko, P.IU., et al, [1992,rus] 48-1949
Long range forecasting of spring inflow into the Cheboksary reservoir. Chemerenko, E.P., [1992,rus] 48-1947
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] 48-1549
Numerical modeling of the hydrophysical fields of a high elevation reservoir during the freezeup period. Klimok, V.I., et al, [1992,rus] 48-3724
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] 48-5549
Permafrost conditions at reservoirs on Baffin I. Hyatt, J.A., [1993,eng] 48-4128
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] 48-1545
Reservoir damage from frost heave. Qiao, D.S., et al, [1993,eng] 48-448
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] 48-5552
Shoreline processes at the Viliuysk hydroelectric plant reservoir. Konstantinov, I.P., [1992,rus] 48-4782
Snowmelt assessment in a complex system of reservoirs (Comunidad de Madrid). Cubillo, F., [1990,eng] 48-1595
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806

Residential buildings
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Burner-assisted residential air-source heat pump. Jones, P.R., et al, [1994,eng] 48-3852
Design of terraced houses for cold climate. Kalabin, A.V., [1994,eng] 48-3880
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Gas engine driven heat pump: an excellent alternative in cold climate. Dentice d'Accadia, M., et al, [1994,eng] 48-3853
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846

Resins
Icing-preventing coating film for cooling plate. Showa Aluminum Corporation, [1993,eng] 48-4430

Resolution
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] 48-4929
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331

Resonance
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] 48-395
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Microwave thawing of cylinders. Pangrle, B.J., et al, [1991,eng] 48-2895
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809

Resources
See [also]: Natural resources

Retention
See [also]: Snow retention; Water retention

Revegetation
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Biological recultivation in the North (theory and practice). Archegova, I.B., ed, [1992,rus] 48-4147
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935
Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] 48-498
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] 48-5125
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Introduced plants in Australian alpine landscapes. Mallen, J., [1986,eng] 48-207
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] 48-2422
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] 48-2124
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] 48-1383
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Promoting late-fall establishment of tall fescue with soil covers. Palazzo, A.J., et al, [1993,eng] 48-3490
Recultivation of oil-contaminated soils. Chalysheva, L.V., et al, [1990,rus] 48-5404
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula. Rebristaia, O.V., et al, [1993,rus] 48-1644
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
See [also]: Introduced plants

Rheology
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Discrete element modelling of a broken ice field—part I: model development. Laset, S., [1994,eng] 48-5111
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] 48-2351
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] 48-2996
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] 48-2399
Meteorite thermoluminescence and ice movement in the Elephant Moraine region. Benoit, P.H., et al, [1992,eng] 48-2616
Modelling the dynamics of ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-3138
Numerical simulations of mesoscale rheology of broken ice fields. Frederking, R.M.W., et al, [1993,eng] 48-166
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] 48-2085
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] 48-1322
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] 48-68
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] 48-3932

Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388
Sticky spots under ice streams. Alley, R.B., [1992,eng] 48-2623
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] 48-3355
Theoretical studies on densification and relaxation of bubbly glacier ice. Salamatin, A.N., et al, [1993,eng] 48-2876
See [also]: Plastic flow

Ridges
See [also]: Pressure ridges

Rime
See [also]: Hoarfrost

River banks
See [also]: Banks (waterways)

River basins
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] 48-137
Arrival date of stable snow cover and the extent of cold period precipitation in the Ili-Balkhash basin. Gal'ster, N.V., [1992,rus] 48-4467
Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] 48-1946
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] 48-2947
Composition and distribution of attached algal communities in small rivers of the Upper Kolyma River basin. Potapova, M.G., [1992,rus] 48-1624
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] 48-493
Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskiĭ, N.I., et al, [1992,rus] 48-4802
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637
Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] 48-2791
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] 48-5268
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Permafrost development in river basins. Xu, B.M., et al, [1993,eng] 48-488
Pleistocene sedimentology of Yukon glacial Lake Nisling. Geurts, M.A., et al, [1993,fre] 48-1148
Post-technogenic variations in the cryolithozone in the southern lower Anadyr' basin. Kotov, A.N., et al, [1992,rus] 48-4799
Problem of conservation of the water basin in the Krasnoyarsk region. Nepomniashchaia, N.V., [1993,rus] 48-1524
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] 48-2778
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] 48-2973
Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] 48-1598
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] 48-2766
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] 48-2790
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Water balance and glacier mass balance in the Swiss Alps. Aellen, M., et al, [1990,fre] 48-1572
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603
See [also]: Watersheds

River crossings
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544
Traffic and transport on ice cover in Nenjiang River. Xu, B.M., et al, [1992,chi] 48-2018
See [also]: Bridges; Ice crossings

River deposits
See [also]: Alluvium

River flow
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] 48-1946
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] 48-1615
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] 48-5607
Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] 48-2768
Effect of the ice cover on the extent of the plume of the Grande Rivière, James Bay. Messier, D., et al, [1989,fre] 48-3432
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Flow characteristics in open channels with floating ice cover. Majewski, W., [1994,eng] 48-5538
Flow over dunes in ice-covered channels. Smith, B.T., et al, [1994,eng] 48-5545
Flow rate of rivers on the northern slope of Ketmen' Ridge during the vegetation period in the flood. Piven', E.N., [1992,rus] 48-4468
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] 48-5268
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Ice formation in steep rivers. Tesaker, E., [1994,eng] 48-5601
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] 48-5606
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] 48-319
Investigation of turbulent underice flows. Dolgopolova, E.N., [1994,eng] 48-5544
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase I). Tsang, G., et al, [1992,eng] 48-4010
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] 48-1543
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] 48-5591
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Omstedt, A., et al, [1994,eng] 48-4413
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] 48-3548
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] 48-5609
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] 48-5608
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] 48-3788
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] 48-2778
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] 48-1577
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] 48-1579
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] 48-5605
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] 48-3545
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] 48-4247
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] 48-1878
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] 48-187
See [also]: Runoff; Stream flow

River ice
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
Abrasion of hydraulic structures caused by movement of river ice. Hara, F., et al, [1994,eng] 48-5524
Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Assessment of ice boom technology for application to the upper Niagara River. Abdelnour, R., et al, [1994,eng] 48-5612
Assessment of instrumentation for application to winter hydropower operations on the upper Niagara River. Rossiter, J.R., et al, [1994,eng] 48-5613
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar. Yankielun, N.E., et al, [1993,eng] 48-3492
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] 48-5602
Clearing ice for bridging operations. Diemand, D., [1994,eng] 48-5425
Conditions of arch formation by ice floes at bridge piers. Hara, F., et al, [1994,eng] 48-5625
Criteria for increased ice discharge capacity of the upper Niagara River. Ettema, R., et al, [1994,eng] 48-5607
Current issues in river ice forecasting. White, K.D., et al, [1993,eng] 48-686
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] 48-4024
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Field study of ice control structure on river rapids. Mineta, M., et al, [1994,eng] 48-5551
Flow characteristics in open channels with floating ice cover. Majewski, W., [1994,eng] 48-5538
Flow over dunes in ice-covered channels. Smith, B.T., et al, [1994,eng] 48-5545
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] 48-5546
Frazil ice concentration meter. Lever, J.H., et al, [1992,eng] 48-1547
Frigid zone ice dike prediction system. Wang, X.R., et al, [1994,eng] 48-5604
Full 2D calculation of ice generation, transport and buildup in natural rivers. Beauchemin, P., et al, [1994,eng] 48-5539
Ice accretion on trash racks in supercooled flows. Part 1: icing. Horjen, I., [1994,eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] 48-5597
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] 48-5537
Ice formation in steep rivers. Tesaker, E., [1994,eng] 48-5601
Ice jam breakup flood discharge on the Yellow River. Yi[illegible]g, L.F., et al, [1994,eng] 48-5542
Ice jamming processes in the upper Niagara River. Crissman, R.D., [1994,eng] 48-5606
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Impact of ice on hydraulic structures and hydropower stations and its prevention. Li, G.F., et al, [1994,eng] 48-5553
Investigation of turbulent underice flows. Dolgopolova, E.N., [1994,eng] 48-5544
Kinematic model of river ice motion during dynamic breakup. Ferrick, M.G., et al, [1993,eng] 48-1621
Laboratory and numerical studies of ice release. Sarraf, S., et al, [1994,eng] 48-5540
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] 48-1543
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-2693
Lagrangian discrete parcel simulation of river ice dynamics. Shen, H.T., et al, [1993,eng] 48-4323

Long range forecasting method for the appearance of ice on rivers in the southern part of the European territory of the Commonwealth of Independent States. Ginzburg, B.M., et al, [1992,rus] **48-1952**
Mathematical model for oil slick transport and mixing in rivers. Shen, H.T., et al, [1993,eng] **48-724**
Mathematical model of Yellow River ice regime control. Chen, Z.T., et al, [1992,eng] **48-1549**
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] **48-5591**
Melting at the leading edge of a river ice cover. Zhang, X.T., [1992,eng] **48-804**
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] **48-1559**
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] **48-3548**
Numerical simulation of ice jam progression in the upper Niagara River. Shen, H.T., et al, [1994,eng] **48-5610**
Observations of the Finnish river ice research project. Huokuna, M., ed, [1991,eng] **48-2642**
On thin ice: radar identification of thin and not so thin layers in hydrological media. O'Neill, K., [1988,eng] **48-1466**
Physical model studies of measures to mitigate ice jamming in the upper Niagara River. Zufelt, J.E., et al, [1994,eng] **48-5609**
Physical model to study ice jamming processes in the upper Niagara River. Larsen, J., et al, [1994,eng] **48-5608**
Polygonal particle simulations of surface ice flows in river channels. Babić, M., et al, [1992,eng] **48-3788**
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] **48-1532**
Proceedings. IAHR Symposium on Ice, 12th, Trondheim, Norway, Aug. 23-26, 1994, [1994,eng] **48-5535**
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] **48-2219**
Proposed artificial river ice damming to induce flooding of a delta ecosystem. Prowse, T.D., et al, [1993,eng] **48-2961**
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] **48-5552**
River ice conditions determined from ERS-1 SAR. Gatto, L.W., [1993,eng] **48-2935**
River ice investigations in Norwegian watercourses—a review. Asvall, R.P., [1994,eng] **48-5536**
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] **48-3359**
Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] **48-5581**
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] **48-1156**
Structures to protect river banks against ice erosion. Androshchuk, V.V., et al, [1992,eng] **48-5518**
Studies of ice jamming in the upper Niagara River: introduction and background. Crissman, R.D., et al, [1994,eng] **48-5605**
Study of border ice growth on the Burntwood River. Miles, T.M., [1993,eng] **48-5379**
Study on frazil and anchor ice processes and development of a river ice model. Wang, D.S., [1994,eng] **48-3547**
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] **48-3789**
Temperature differences in the Restigouche estuary during the ice-covered season. Bettignies, C., et al, [1994,eng] **48-3360**
Temperature-drop activity and the variation of ice-regime in Ningxia reach of Yellow River. Shen, G.R., [1994,eng] **48-5600**
Traffic and transport on ice cover in Nenjiang River. Xu, B.M., et al, [1992,chi] **48-2018**
Two-dimensional model for dynamic ice transport and jamming in the upper Niagara River. Shen, H.T., et al, [1994,eng] **48-5611**
Two-dimensional model for river ice dynamics. Chen, Y.C., [1994,eng] **48-3545**
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] **48-4247**
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] **48-1878**
Variation of water temperature in an ice-covered stream. Miya, A., et al, [1994,eng] **48-5543**

River temperatures
See [also]: Water temperature

Rivers
Environmental protection in the design of land irrigation and water supply (Yakutia). Fedorov, P.F., [1992,rus] **48-4792**
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] **48-512**
Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] **48-1398**
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] **48-5268**
Hydrograph forecasts for a mountain river in a stochastic form. Mukhin, V.M., [1992,rus] **48-1948**
Mathematical model for oil slick transport and mixing in rivers. Shen, H.T., et al, [1993,eng] **48-724**
Method of calculating annual runoff in terms of the seasonal total. Lobanov, V.A., et al, [1992,rus] **48-185**
Method of long range forecasting of freezeup on rivers in Kazakhstan. Shmarova, I.N., [1992,rus] **48-1953**
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] **48-3619**
Modeling surface flow hydrography of a spring flood in small rivers. Vodogretskiĭ, V.E., et al, [1992,rus] **48-184**
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] **48-136**
Problem of applying adaptive models for routine forecasting of the water regime of rivers in the BAM zone. Vakhnenko, S.V., et al, [1992,rus] **48-186**
Qualitative condition of surface waters in Komi ASSR. Kokovkin, A.V., [1990,rus] **48-5403**
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] **48-4528**
Radioactive contamination of topsoil in the lower reaches of Techa River in the Urals. Pozolotina, V., et al, [1993,eng] **48-4527**
River bed forming deposits in rivers of northern Eurasia. Lodina, R.V., [1993,rus] **48-3741**
Specific nature of delta development in river estuaries in the arctic zone of Siberia. Korotaev, V.N., [1992,rus] **48-4785**
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] **48-187**
See [also]: Glacial rivers; Streams

Road icing
Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] **48-1764**
Acetate de-icing agent for road surfaces. Stankowiak, A., et al, [1993,eng] **48-1939**
Adaptor disk for attaching an anti-skid device to a wheel disk or rim. Preusker, R., et al, [1990,eng] **48-2201**
Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] **48-4749**
Airport friction control in wintertime. Antvik, G., [1994,eng] **48-3967**
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] **48-1974**
Anti-skid device for tired vehicle wheels. Oda, Y., [1990,eng] **48-2256**
Antiskid device for motor vehicles. Zampieri, P., [1990,eng] **48-2184**
Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] **48-1763**
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] **48-2220**
Characteristics of winter traffic accidents in the Tohoku Region. Horii, M., et al, [1989,jpn] **48-710**
Compaction and ablation processes of road snow and ice. Maeno, N., [1989,jpn] **48-674**
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] **48-1853**
Countermeasures for studded tires in Miyagi Prefecture. Sugiyama, A., [1986,jpn] **48-261**
Current status and future prospects of studless tires. Hayashi, H., [1989,jpn] **48-671**
Current status and study topics for the dissemination of road traffic information. Shibata, M., et al, [1986,jpn] **48-255**
Danish operational slippery-road-warning system and prospects for the future. Voldborg, H., [1993,eng] **48-1205**
Deicing compositions. Hansen, C.N., [1986,eng] **48-4273**
Detection of water on road surface by the polarized light. Kimura, T., [1993,jpn] **48-1851**
Development of a method for predicting snowfall intensity and compacted snow on roads. Funada, H., et al, [1993,jpn] **48-1852**
Device for positioning and attaching an auxiliary snow-chain device for motor vehicles. Tschannen, H., [1990,eng] **48-2198**
Easily activated and deactivated traction device for vehicles. Vilhauer, J.E., Jr., [1990,eng] **48-2176**
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] **48-704**
Effect of road surface and meteorological conditions on traffic accidents in winter. Kaku, T., [1989,jpn] **48-675**
Effectiveness of calcium magnesium acetate deicer. Perchanok, M.S., et al, [1992,eng] **48-3069**
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] **48-3235**
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] **48-3119**
European project COST 309, road weather conditions. Nysten, E., [1993,eng] **48-1203**
Field tests of liquid sal. and pre-wetted salt. Raukola, T., et al, [1993,fin] **48-3067**
Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base.[1991,eng] **48-3123**
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] **48-3262**
Forecasting system for snow and freezing. Masuda, Y., et al, [1986,jpn] **48-20**
Frost Data Base (FDB). Svensson, J., [1993,swe] **48-3078**
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] **48-3953**
Goals and methods of winter maintenance in Finland. Katko, K., [1993,eng] **48-1188**
Highway de-icers: standards, practice and research in the Province of Ontario. Perchanok, M.S., et al, [1991,eng] **48-3068**
Ice melter comprising an alpha-methyl glucoside and method of making same. Connor, M.B., et al, [1990,eng] **48-2257**
Ice-detection system evaluation. Woodham, D., [1991,eng] **48-4896**
Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] **48-4897**
Indoor test of ice and snow tires on iced drum tester. Shimizu, K., et al, [1992,jpn] **48-1850**
Influences of regulation of studded tire in Hokkaido. Asano, M., et al, [1993,eng] **48-1200**
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] **48-4235**
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] **48-1468**
Kanazawa in snow. Takamoto, M., [1986,jpn] **48-34**
Lake County modifies deicing spreaders.[1994,eng] **48-4248**
Measurement of atmospheric radiation for winter road management. Shimizu, M., et al, [1993,eng] **48-1206**
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] **48-3923**
Methods and materials for snow and ice control on Swedish roads and runways. Gustafson, K., [1993,eng] **48-1193**
Metro Division snow and ice research field studies 1992-1993 winter season. Barnes, M., [1993,eng] **48-4905**
MINSALT—extension of the regions in Sweden where salt is not used: effect studies. Øberg, G., [1993,eng] **48-1208**
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] **48-4580**
New sensor can reduce highway deicer use.[1994,eng] **48-4255**
New way to remove ice from streets and highways. Stirling, J., [1990,eng] **48-1667**
Nonmetal antiskid devices for tires. Iwane, M., [1986,jpn] **48-262**
On the way: anti-icing instead of deicing. Mergenmeier, A., [1994,eng] **48-4256**
Oregon experiments with anti-icing operations.[1994,eng] **48-4254**
Performance evaluation of anti-icing pavement. Kawamura, K., et al, [1993,eng] **48-1196**
Performance test of various tires on roads in snow and ice. Murakuni, M., et al, [1988,jpn] **48-563**
Performance tests on winter tires. Ninagawa, K., et al, [1986,jpn] **48-19**
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] **48-4364**
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] **48-4237**
Porous inert road grit. Canzani, A., [1990,eng] **48-2171**
Precipitation intensity and type determined by light attenuation technique. Lundberg, A., et al, [1994,eng] **48-3963**
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] **48-1186**
Proposal for new winter road maintenance strategy—MINSALT project. Axelson, L., [1993,eng] **48-1189**
Prospects for measures to safeguard road traffic in winter. Wada, J., [1987,jpn] **48-270**
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] **48-1197**
Recent trends in research on snow and ice disaster prevention. Nakamura, T., [1987,jpn] **48-275**
Regulations on studded tire usage and winter road administration in Japan. Kanzaki, H., et al, [1993,eng] **48-1187**
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction. Onoda, M., [1987,jpn] **48-274**
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] **48-276**
Results of a field test of six different ice warning systems. Scharsching, H., [1993,eng] **48-1204**
Road conditions in Finland. Aoyama, K., [1989,jpn] **48-714**
Road freezing countermeasures in Europe. Wada, J., [1987,jpn] **48-547**
Road freezing countermeasures. Onoda, M., [1987,jpn] **48-548**
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] **48-703**
Road surface temperature and road surroundings relations observed in thermal mapping. Kajiya, Y., et al, [1993,jpn] **48-1975**
Road weather data collection instruments. Ueda, S., [1986,jpn] **48-257**
Roadside message system for icing conditions. Nishihara, H., et al, [1987,jpn] **48-279**
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] **48-5054**
Science of snow and ice (10). Inoue, M., [1987,jpn] **48-544**
Science of snow and ice (12). Inoue, M., [1988,jpn] **48-654**
Science of snow and ice (13). Inoue, M., [1989,jpn] **48-666**
Science of snow and ice (6). Inoue, M., [1986,jpn] **48-254**
SHRP research on snow and ice control. Minsk, L.D., [1993,eng] **48-1191**
Snow and cold weather countermeasures on highways. Japan Highway Public Corporation, [1988,jpn] **48-584**
Snow and ice countermeasures in 1985. Murase, K., et al, [1986,jpn] **48-17**
Snow and ice countermeasures on highways. Hayashi, Y., [1987,jpn] **48-277**
Snow and ice melting system for road or exposed surface. Nagai, Y., et al, [1993,eng] **48-4436**
Snow chain having a network of diamond shaped openings. Lew, H.S., [1990,eng] **48-2190**
Study on frost heave tests. Kumagai, S., et al, [1988,jpn] **48-588**
Study on traffic volume at signal controlled intersections in winter. Sotoi, T., et al, [1986,jpn] **48-21**
Study on winter road management methods using forecast reports. Wada, J., et al, [1989,jpn] **48-668**

Summary of the road report system of the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1989,jpn] 48-669
Terminology and classification of road snow and ice. Maeno, N., [1988,jpn] 48-585
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] 48-1840
To salt or not to salt. What are the alternatives. Samuels, J., [1989,eng] 48-2043
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Traffic accidents in the snowy season (1). Kaku, T., [1989,jpn] 48-698
Traffic accidents in the snowy season (2). Kaku, T., [1989,jpn] 48-709
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] 48-1199
Traffic on ice and snow. Øberg, G., [1993,eng] 48-5061
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192
Trends abroad in snow and roads—the problem of studded tires. Kubo, H., [1987,jpn] 48-273
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] 48-256
Weather forecasts and information on road conditions—MINSALT. Axelson, L., [1993,eng] 48-1202
What's new in deicing.[1994,eng] 48-4257
White Spot Program in Denmark. Kasai, A., [1987,jpn] 48-549
Winter highway maintenance data, Vol.2. Grenney, W.J., et al, [1993,eng] 48-1847
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] 48-1198
Winter maintenance in Minnesota today and tomorrow. Pletan, R.A., [1993,eng] 48-1207
Winter maintenance of national roads in Norway. Leland, T., [1993,eng] 48-1190
Winter maintenance on porous asphalt. Noort, M., [1991,eng] 48-3070
Winter maintenance on Transport Canada airports. Anderson, F., [1993,eng] 48-5083
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938
Winter road repair in snowy and cold regions. Atochi, S., [1988,jpn] 48-571
Winter road surface control in the Hokuriku Region. Sakai, T., et al, [1993,eng] 48-5082
Winter road-surface conditions and pavement problems in Hokkaido. Kawamura, K., et al, [1993,eng] 48-5084
Winter roads in Nagano Prefecture. Higashiura, K., [1988,jpn] 48-572
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] 48-757

Road maintenance

Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] 48-1764
Acetate de-icing agent for road surfaces. Stankowiak, A., et al, [1993,eng] 48-1939
Alberta Concrete Patch Evaluation Program. Gurjar, S., et al, [1987,eng] 48-4402
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] 48-1974
Application of in-situ surface recycling methods in cold areas. Kikukawa, S., et al, [1993,eng] 48-5072
Applications of recycled plastics for roadside safety hardware. Dutta, P.K., et al, [1994,eng] 48-3268
Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] 48-1763
Assuring the safety of road traffic in winter. Kinki Regional Construction Bureau, [1988,jpn] 48-582
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] 48-4917
Blade of snow plough. Zolotov, IU.F., [1992,eng] 48-5513
Bulletin on road snow removal for 1987. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-573
Bulletin on road snow removal for 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-707
Bulletin on road snow removal in the 1986 snowstorms. Fujieda, H., [1986,jpn] 48-39
Bulletin on the budget for snow and cold weather operations for 1987. Fujieda, H., [1987,jpn] 48-283
Bulletin on the budget for snow and cold weather operations for 1988. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-565
Changes and future prospects for sidewalk snow removal equipment. Oshima, S., et al, [1988,jpn] 48-557
Changes and future topics for snow and cold weather operations in Aomori Prefecture. Sato, N., [1987,jpn] 48-272
Classification of distress of asphalt pavements. Nishizawa, T., et al, [1993,eng] 48-5078
Classification of the various types and characteristics of snowfall sensor. Tamura, M., [1993,jpn] 48-3182
Cold hand patching materials. Outcalt, W., [1993,eng] 48-3282
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] 48-4236
Cold region road maintenance in the 9th Five-Year Plan. Suzuki, A., [1988,jpn] 48-576
Composites for roadside hardware. Dutta, P.K., et al, [1993,eng] 48-2094
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] 48-1853
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
Countermeasures for studded tires in Miyagi Prefecture. Sugiyama, A., [1986,jpn] 48-261
Culvert engineering in the permafrost region of Qinghai- Xizang Plateau. Zhang, J.Z., et al, [1993,chi] 48-4502
Culvert engineering in the permafrost region of Qinghai-Xizang Plateau. Zhang, J.Z., et al, [1993,eng] 48-5261
Current status and future developments of snow and ice technology. Kuriyama, H., [1987,jpn] 48-271
Current status and study topics for the dissemination of road traffic information. Shibata, M., et al, [1986,jpn] 48-255
Current status of snow removal equipment. Yamamoto, H., [1988,jpn] 48-555
Current status of the snowy region. Shinjo City Construction Department, [1986,jpn] 48-23
Danish operational slippery-road-warning system and prospects for the future. Voldborg, H., [1993,eng] 48-1205
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] 48-1736
Detection of water on road surface by the polarized light. Kimura, T., [1993,jpn] 48-1851
Development of a circulation-type snow removal drain system. Sato, Y., [1989,jpn] 48-705
Development of a method for predicting snowfall intensity and compacted snow on roads. Funada, H., et al, [1993,jpn] 48-1852
Development of a snow removal truck to manage high snowbanks. Nakamura, O., et al, [1986,jpn] 48-266
Development of operations management systems for snow removal equipment. Oana, H., et al, [1988,jpn] 48-556
Development of stone mastic asphalt mixes for Ontario use. Emery, J., et al, [1993,eng] 48-5086
Development of technology for hydraulic transport of snow. Kobayashi, T., et al, [1987,jpn] 48-281
Development trends in snow melting devices using heat pumps. Shinojima, K., [1988,jpn] 48-658
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] 48-704
Effect of highway geometry on distress of asphalt pavements in cold climates. Abd El Halim, A.O., et al, [1993,eng] 48-5079
Effectiveness of calcium magnesium acetate deicer. Perchanok, M.S., et al, [1992,eng] 48-3069
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Estimated budget requirements for snow and cold weather operations for 1987. Fujieda, H., [1986,jpn] 48-267
Estimated budget requirements for snow and cold weather operations for 1988. Fujieda, H., [1987,jpn] 48-554
Estimated budget requirements for snow and cold weather operations for 1989. Nakagawa, M., [1988,jpn] 48-665
European project COST 309, road weather conditions. Nysten, E., [1993,eng] 48-1203
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Evaluation of a major concrete pavement rehabilitation and overlay project in Ontario. Kazmierowski, T.J., et al, [1993,eng] 48-5081
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] 48-5077
Experiments of snow drift around the snow fences with model snow. Shirono, K., [1993,jpn] 48-1971
Experiments with deep drainage. Bäckman, L., [1993,swe] 48-2706
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] 48-5085
Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272
Field tests of liquid salt and pre-wetted salt. Raukola, T., et al, [1993,fin] 48-3067
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
Forecasting system for snow and freezing. Masuda, Y., et al, [1986,jpn] 48-20
Frost Data Base (FDB). Svensson, J., [1993,swe] 48-3078
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] 48-3953
Goals and methods of winter maintenance in Finland. Katko, K., [1993,eng] 48-1188
Good ideas to improve winter maintenance.[1994,eng] 48-5300
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
High performance concrete for highway applications: field results. Schemmel, J.J., et al, [1993,eng] 48-2658
Highway de-icers: standards, practice and research in the Province of Ontario. Perchanok, M.S., et al, [1991,eng] 48-3068
Highway operations: progress and products update. Smith, K.H., et al, [1991,eng] 48-3705
How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] 48-5304
How you can evaluate wetted salt.[1994,eng] 48-5302
Hydraulic transport of snow by pipe. Umemura, A., et al, [1986,jpn] 48-32
Ice-detection system evaluation. Woodham, D., [1991,eng] 48-4896
Ice-pavement bond prevention: surface modification. Baum, B., et al, [1992,eng] 48-4897
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Indoor test of ice and snow tires on iced drum tester. Shimizu, K., et al, [1992,jpn] 48-1850
Influences of regulation of studded tire in Hokkaido. Asano, M., et al, [1993,eng] 48-1200
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] 48-4235
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] 48-567
Introduction to flexible plows (variable curved surface-type). Ishiguro, F., [1988,jpn] 48-590
Investigation of material and geometric characteristics of highway snow fence. Perchanok, M.S., [1993,eng] 48-4005
Investigative report on line of sight in the effectiveness of snow advisory display signs. Kaku, T., [1991,jpn] 48-4240
ISCORD '94. Extended abstracts. International Symposium on Cold Region Development, 4th, Espoo, Finland, June 13-16, 1994, [1994,eng] 48-4404
Joint tests on stud ravelling. Ito, M., [1988,jpn] 48-570
Kanazawa in snow. Takamoto, M., [1986,jpn] 48-34
Linear construction in cold regions—paved roads and airfields. Vinson, T.S., [1993,eng] 48-5188
Loading, transport, and removal of roadside snowbanks. Watanabe, T., [1986,jpn] 48-260
Looking back on the snowstorms of 1986. Endo, I., et al, [1986,jpn] 48-15
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Low temperature properties of asphalts and asphaltic mixtures. Moriyoshi, A., et al, [1993,eng] 48-5089
Making a snowproof town—Nagaoka New Town. Nishida, T., [1988,jpn] 48-559
Making the best of natural conditions, European and American snow countermeasures. Ishimoto, K., [1989,jpn] 48-712
Measurement of atmospheric radiation for winter road management. Shimizu, M., et al, [1993,eng] 48-1206
Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] 48-3923
Method of evaluating the cost of snow removal. Sakai, T., et al, [1993,jpn] 48-3186
Methods and materials for snow and ice control on Swedish roads and runways. Gustafson, K., [1993,eng] 48-1193
Metro Division snow and ice research field studies 1992-1993 winter season. Barnes, M., [1993,eng] 48-4905
Microwave locator of objects buried in snow. Stanford, M., [1994,eng] 48-3275
MINSALT—extension of the regions in Sweden where salt is not used: effect studies. Øberg, G., [1993,eng] 48-1208
Mixture for construction of car-road base. Leoshkevich, E.A., et al, [1992,eng] 48-4428
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065
Nagaoka thriving in the snow. Nagaoka City Civil Engineering Department, [1987,jpn] 48-553
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
New guidelines for blowing snow control. Tabler, R.D., [1993,eng] 48-1194
New way to beat snow and ice. Pletan, R.A., [1994,eng] 48-5303
New way to remove ice from streets and highways. Stirling, J., [1990,eng] 48-1667
Ninth Five-Year Plan at the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1988,jpn] 48-579
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517
Northernmost winter roads. Takebayashi, T., et al, [1987,jpn] 48-282
Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] 48-5067
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Performance evaluation of anti-icing pavement. Kawamura, K., et al, [1993,eng] 48-1196
Performance of in-situ hot mix recycling as a maintenance technique in Ontario. Marks, P., et al, [1993,eng] 48-5073
Planning for snow removal. Girard, Y., [1993,eng] 48-2044
Poor visibility caused by snow whirl behind vehicles. Fukuzawa, Y., [1993,jpn] 48-3171
Porous inert road grit. Canzani, A., [1990,eng] 48-2171
Porous slab mixtures to prevent frost damage to roads. Zhu, Y.B., et al, [1993,chi] 48-4506
Precipitation intensity and type determined by light attenuation technique. Lundberg, A., et al, [1994,eng] 48-3963

Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids. Yuge, F., et al, [1993,eng] 48-5068
Proceedings. Canada/Japan Workshop on Paving in Cold Areas, 5th, Kananaskis, Alberta, Sep. 12-15, 1993, [1993,eng] 48-5066
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] 48-1186
Progress and future prospects for snow and cold weather operations. Terada, A., [1987,jpn] 48-269
Proposal for new winter road maintenance strategy—MINSALT project. Axelson, L., [1993,eng] 48-1189
Prospects for measures to safeguard road traffic in winter. Wada, J., [1987,jpn] 48-270
Rapid pothole repairs during adverse weather conditions: field evaluation. Joseph, P., et al, [1993,eng] 48-5092
Reaching towards overcoming snow in Arai City. Goto, K., [1986,jpn] 48-25
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] 48-1197
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089
Recent trends in research on snow and ice disaster prevention. Nakamura, T., [1987,jpn] 48-275
Recent trends in snow melting facilities in the Hokuriku Region. Kuwahara, T., [1989,jpn] 48-711
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] 48-5076
Regulations on studded tire usage and winter road administration in Japan. Kanzaki, H., et al, [1993,eng] 48-1187
Remote controlled snowthrower discharge chute deflector. Wacker, R.W., [1989,eng] 48-4083
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Repair of pavement distress in permafrost. Luo, W.Q., [1993,chi] 48-4504
Report on historical changes of road snow removal technique in Akita Prefecture. Ito, T., et al, [1993,jpn] 48-1970
Report on the budget items for snow and cold weather operations in 1985. Fujieda, H., [1986,jpn] 48-27
Report on the budget items for snow and cold weather operations in 1987. Nakagawa, M., [1988,jpn] 48-591
Report on the budget items for snow and cold weather operations in 1988. Japan Ministry of Construction. Road Bureau, [1989,jpn] 48-716
Research developments in sophisticated automation technology for snow removal in cold regions. Sayama, S., et al, [1989,jpn] 48-676
Research of porous slab structures for preventing frost damage of roads. Zhu, Y.B., et al, [1993,eng] 48-5266
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction. Onoda, M., [1987,jpn] 48-274
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] 48-276
Results of a field test of six different ice warning systems. Scharsching, H., [1993,eng] 48-1204
Rheological properties of regular and polymer modified asphalts. Gagnon, P.F., et al, [1993,eng] 48-5090
Road conditions in Finland. Aoyama, K., [1989,jpn] 48-714
Road design and renovations of the north slope in Da Hinggan Ling. Luo, W.Q., [1993,eng] 48-5227
Road freezing countermeasures in Europe. Wada, J., [1987,jpn] 48-547
Road freezing countermeasures. Onoda, M., [1987,jpn] 48-548
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] 48-703
Road shoulder windbreak fences and snow cornice prevention fences. Senken Steel Company, [1986,jpn] 48-36
Road snow melting by solar energy and heat pipes. Konagai, N., [1986,jpn] 48-264
Road snow removal in Ishikawa Prefecture. Adachi, M., [1986,jpn] 48-18
Road surface temperature and road surroundings relations observed in thermal mapping. Kajiya, Y., et al, [1993,jpn] 48-1975
Road weather data collection instruments. Ueda, S., [1986,jpn] 48-257
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] 48-2091
Roads in snowy and cold regions and bypass-type snow melting and removal drains. Sato, K., [1988,jpn] 48-569
Roadside message system for icing conditions. Nishihara, H., et al, [1987,jpn] 48-279
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025
Sangoku Pass National Highway. Abe, A., [1989,jpn] 48-678
Science of snow and ice (10). Inoue, M., [1987,jpn] 48-544
Science of snow and ice (12). Inoue, M., [1988,jpn] 48-654
Science of snow and ice (13). Inoue, M., [1989,jpn] 48-666
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
SHRP research on snow and ice control. Minsk, L.D., [1993,eng] 48-1191
Significance of pavement design and materials in D-cracking. Final report. Stark, D.C., [1991,eng] 48-4899
Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] 48-5080
Snow and cold weather countermeasures at the Chugoku Regional Construction Bureau. Chugoku Regional Construction Bureau, [1988,jpn] 48-583
Snow and cold weather countermeasures on highways. Japan Highway Public Corporation, [1988,jpn] 48-584
Snow and cold weather operations at the Chubu Regional Construction Bureau. Chubu Regional Construction Bureau, [1988,jpn] 48-581
Snow and cold weather operations at the Kanto Regional Construction Bureau. Kanto Regional Construction Bureau, [1988,jpn] 48-580
Snow and ice cleaving machine. Ermilov, A.B., [1992,eng] 48-5517
Snow and ice cleaving machine. Litvinenko, V.T., et al, [1992,eng] 48-5515
Snow and ice control in Japan and United States. Minsk, L.D., et al, [1993,eng] 48-2673
Snow and ice countermeasures in 1985. Murase, K., et al, [1986,jpn] 48-17
Snow and ice countermeasures on highways. Hayashi, Y., [1987,jpn] 48-277
Snow and ice melting system for road or exposed surface. Nagai, Y., et al, [1993,eng] 48-4436
Snow and road traffic noise. Hasebe, M., et al, [1988,jpn] 48-659
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Snow melting apparatus. Brady, B.D., [1993,eng] 48-1655
Snow melting measures in Asahikawa City. Ito, H., et al, [1988,jpn] 48-566
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [1993,eng] 48-1195
Snow removal apparatus and method. Gudmundsson, B.J., [1989,eng] 48-4075
Snow removal apparatus. Hutson, B.L., [1992,eng] 48-2242
Snow removal drain at Kutchian on National Highway 5. Nakamura, E., [1986,jpn] 48-22
Snow removal on Gassan Mountain highway. Omura, S., et al, [1988,jpn] 48-558
Snow removal plan for sidewalks and snowy roads in Shibata City. Shimotsuma, I., [1989,jpn] 48-701
Snow removal system using existing roadside ditches. Isobe, K., et al, [1986,jpn] 48-265
Snow retention plough. Galkin, G.I., et al, [1992,eng] 48-4069
Snow scoop helps clear rear of plow.[1994,eng] 48-5301
Snowdrift countermeasures. Sato, S., [1987,jpn] 48-546
Snowfall forecasting system in Sapporo City. Shibuya, K., [1989,jpn] 48-670
Snowplow mounting assembly for front-end loaders. Morrell, J.R., [1989,eng] 48-1519
Snowplow truckcab ergonomics task force report. Peterson, D., [1993,eng] 48-4901
Snowstorm guard fence structures and jet roofs. Ono, M., et al, [1990,eng] 48-2270
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Stabilized recycled plastics as high performance asphalt binder modifiers. Liang, Z.Z., et al, [1993,eng] 48-5075
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] 48-280
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915
Study on blowing snow countermeasures and traffic control. Togashi, Y., et al, [1986,jpn] 48-258
Study on countermeasures for snowdrifts and drifting snow on National Highway 113. Tamaki, M., [1986,jpn] 48-259
Study on frost heave tests. Kumagai, S., et al, [1988,jpn] 48-588
Study on hindrance to visibility and to the driver's visual point by blowing snow. Kaku, T., [1992,jpn] 48-4239
Study on snowdrift countermeasures in the Shonai region. Sawada, K., et al, [1987,jpn] 48-545
Study on the application of surface recycling methods. Nakanishi, T., et al, [1993,eng] 48-5074
Study on the evaluation methods for the strength of pavement materials. Kiriyama, T., et al, [1993,eng] 48-5091
Study on traffic volume at signal controlled intersections in winter. Sotoi, T., et al, [1986,jpn] 48-21
Study on winter road management methods using forecast reports. Wada, J., et al, [1989,jpn] 48-668
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] 48-4918
Summary of comprehensive snow countermeasures in Toyama Prefecture. Maeda, T., [1988,jpn] 48-560
Summary of the road report system of the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1989,jpn] 48-669
Summary of the snow and cold weather operations budget for 1989. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-708
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463
Tenth Five-Year Plan for road maintenance. Ando, A., [1988,jpn] 48-575
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] 48-5069
To salt or not to salt. What are the alternatives. Samuels, J., [1989,eng] 48-2043
Tohoku regional snow and cold weather operations. Tohoku Regional Construction Bureau, [1988,jpn] 48-578
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] 48-1199
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192
Trends abroad in snow and roads—the problem of studded tires. Kubo, H., [1987,jpn] 48-273
Trolley for transporting snow removal equipment on runways. Krivoshein, M.G., et al, [1992,eng] 48-5514
Truth about winter maintenance. Muntz, H., [1994,eng] 48-5299
User's guide: subsurface drainage for military pavements. Grogan, W.P., [1992,eng] 48-4751
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] 48-568
Vault structure for protection of roadways against snow. Plantier, J.L., [1989,eng] 48-4076
Visibility reduction by snow in the wake of highway vehicles. Fukuzawa, Y., et al, [1993,jpn] 48-1968
Visibility reduction caused by snow in the wake of vehicles on highways. Ishimoto, K., et al, [1993,eng] 48-1201
Visual range in airborne snow particles. Takeuchi, M., [1991,jpn] 48-3423
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] 48-256
Weather forecasts and information on road conditions—MINSALT. Axelson, L., [1993,eng] 48-1202
Weather observation and its use for road management. Takeuchi, M., [1986,jpn] 48-31
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] 48-2088
Wheeled carrier for a snow plow. Reppen, W.D., [1989,eng] 48-4078
White Spot Program in Denmark. Kasai, A., [1987,jpn] 48-549
Wind tunnel test for snowbreak forests along a highway. Yoshizawa, M., et al, [1993,jpn] 48-1972
Winter at Lake Biwa. Kubota, T., [1988,jpn] 48-564
Winter highway maintenance data, Vol.2. Grenney, W.J., et al, [1993,eng] 48-1847
Winter in Shiribeshi. Higuchi, K., [1989,jpn] 48-715
Winter in Tottori. Masui, K., [1986,jpn] 48-263
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] 48-1198
Winter maintenance in Minnesota today and tomorrow. Pletan, R.A., [1993,eng] 48-1207
Winter maintenance of national roads in Norway. Leland, T., [1993,eng] 48-1190
Winter maintenance on porous asphalt. Noort, M., [1991,eng] 48-3070
Winter maintenance on Transport Canada airports. Anderson, F., [1993,eng] 48-5083
Winter on five mountain roads. Umejima, M., [1988,jpn] 48-664
Winter on Sengan Highway. Sato, T., [1989,jpn] 48-706
Winter on the Kurigo Ridge on National Highway 13. Ito, T., [1988,jpn] 48-589
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938
Winter road repair in snowy and cold regions. Atochi, S., [1988,jpn] 48-571
Winter road surface control in the Hokuriku Region. Sakai, T., et al, [1993,eng] 48-5082
Winter road-surface conditions and pavement problems in Hokkaido. Kawamura, K., et al, [1993,eng] 48-5084
Winter roads in Nagano Prefecture. Higashiura, K., [1988,jpn] 48-572
Working unit of snow and ice cleaving machine. Ermilov, A.B., [1992,eng] 48-5516
Wrestling with snow and cold countermeasures at the Hokkaido Development Bureau. Hokkaido Development Bureau, [1988,jpn] 48-577

Roadbeds

About an assessment of factors in railway bed stability in the permafrost zone. Garagulia, L.S., et al, [1994,eng] 48-3399
Change of the artificial permafrost table under the roadbed and effect on the roadbed. M.H.Z., et al, [1993,eng] 48-436
Deformed embankments of mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Experience and primary tasks of geocryological studies for Russian railways. Kondrat'ev, V.G., [1994,eng] 48-3405
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] 48-494
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463

Roads

Asphalt viscoelasticity under high and low temperatures. Hase, M., [1993,ger] 48-607
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Construction of highways and airports on permafrost. Davydov, V.A., [1993,rus] 48-1523
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] 48-5008

Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Experimental section of roller compacted concrete arterial road in Edmonton, Alberta. Todres, H.A., et al, [1994,eng] 48-3370
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-4026
See [also]: Ice roads; Snow roads; Streets

Rock creep
See [also]: Talus

Rock drilling
Drilling characteristics of engineering geology of permafrost in Da Hinggan Ling region. Qiu, X.Q., [1993,chi] 48-4509
Drilling characteristics of engineering geology of permafrost on Da Hinggan Ling region. Zou, X.Q., [1993,eng] 48-5267
Low power diamond rock coring parameters. Wang, Z.W., et al, [1994,eng] 48-5336

Rock excavation
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Rock and frozen ground breaking device using heating elements. Kharitonov, M.A., et al, [1992,eng] 48-5533
Thermocontact method of equipment metallic surfaces clearing from frozen coherent rocks. Skriabin, R.M., et al, [1994,eng] 48-3991

Rock fills
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
See [also]: Earth fills

Rock glaciers
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
DC resistivity soundings 1992 in north-western Svalbard. Hoelzle, M., [1993,eng] 48-2701
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] 48-354
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Geocryology in Mt. Tianshan. Gorbunov, A.P., [1993,eng] 48-5206
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Ice exposures in rock glaciers. Whalley, W.B., et al, [1994,eng] 48-5179
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Mass movement in the Great Wall Station area, Antarctica. Zhu, C., et al, [1992,eng] 48-78
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] 48-5202
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] 48-4487
Permafrost distribution in the Italian mountains. Belloni, S., et al, [1993,eng] 48-356
Push moraine on Mt. Viso (Italy). Evin, M., [1991,fre] 48-3649
Research on permafrost and periglacial processes in mountain areas—status and perspectives. Haeberli, W., [1993,eng] 48-5184
Research on rock glaciers in the central Italian Alps (Valtellina, Sondrio, northern Italy). Calderoni, G., et al, [1993,eng] 48-362
Rock glacier-moraine dynamics in the southern French Alps. Evin, M., [1993,fre] 48-4101
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Survey of rock glaciers in the Swiss Alps. Vonder Mühl, D.S., et al, [1993,eng] 48-473

Rock magnetism
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] 48-4568
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
See [also]: Remanent magnetism

Rock mechanics
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] 48-2536
Influence of below-freezing temperatures on the shear behavior of wet rock joints. Park, Y.J., [1992,eng] 48-3528
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149

Rock properties
Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] 48-2563
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] 48-5311
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] 48-458
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] 48-4837
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] 48-940
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369

Rock streams
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] 48-300
Stone trails on unstable slopes. Dumas, B., et al, [1993,eng] 48-1848

Rock temperature
See [also]: Frozen rock temperature

Rocks
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-3257
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Drumlin geomorphology in western Ireland. Hanvey, P.M., [1992,eng] 48-2518
See [also]: Frozen rocks; Lithology

Romania
Cold time operation improvement of the Bucharest water supply intake. Iamandi, C., et al, [1994,eng] 48-3960
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Thermal comfort analysis in apartment buildings using the CAMERA program. Iordache, F., et al, [1994,eng] 48-3846

—Carpathian Mountains
Permafrost and periglacial forms in the Romanian Carpathians. Urdea, P., [1993,eng] 48-469

Roofs
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Buckling of geodesic domes under snow loads. Part 8. Sugino, H., et al, [1993,jpn] 48-1999
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] 48-1735
Electric-heater roof snow melter. Yoshida, N., et al, [1993,jpn] 48-1986
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978. Jordan Marsh Company. Central Service Facility, [1978,eng] 48-1871
Experimental study of snow drifting on two-level flat roofs. Suzuya, J., et al, [1993,jpn] 48-1996
Experimental study on adfreezing strength of snow and ice against roofing materials. Watanabe, M., [1993,jpn] 48-1993
Experimental study on roof snow melting system by bar-shaped carbon heater. Sano, O., et al, [1993,jpn] 48-1988
Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] 48-1994
General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962
Investigation of the roof shape and roofing materials of wooden houses in Sapporo. Hoshino, M., et al, [1993,jpn] 48-1990
Mechanism for preventing snow from sliding off roofs. Drew, D.A., [1993,eng] 48-4415
On the adfreeze properties of damaged roofing. Ito, T., et al, [1993,jpn] 48-1992
Research studies on the snow load on roofs (2). Tosaka, M., et al, [1993,jpn] 48-1997
Return period conversion coefficient for ground snow load on design. Takahashi, T., et al, [1993,jpn] 48-1995
Roof snow sliding system with electric heater. Harada, H., et al, [1993,jpn] 48-1987
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Snow adhesion to roof sheets at sub-freezing temperatures. Shimizu, M., et al, [1992,jpn] 48-3165
Snow removal apparatus. Cooley, J., [1992,eng] 48-2238
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles. Higashiyama, Y., et al, [1993,jpn] 48-1989
Snowstorm guard fence structures and jet roofs. Ono, M., et al, [1990,eng] 48-2270
Study on the adfreeze properties of roofing materials. Tomabechi, T., et al, [1993,jpn] 48-1991
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860

Rotary drilling
Investigation of the ice cutting process by the rotary drill. Vasil'ev, N.I., et al, [1994,eng] 48-5339

Roughness coefficient
See [also]: Surface roughness

Route surveys
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Building the DEW line. Walker, C.W., [1957,eng] 48-289
Estimation of burial depths for pipelines in the Beaufort Sea. Chouinard, L.E., [1993,eng] 48-153
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] 48-5377
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] 48-1453
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] 48-494
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
International Northern Sea Route Program. Løvås, S.M., et al, [1994,eng] 48-5593
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] 48-4232
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] 48-4228
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359
Northeast-Passage: a nautical challenge for the next century. Kjerstad, N., [1993,eng] 48-4343
Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] 48-1779
Proceedings. Northern Sea Route Expert Meeting, Tromsö, Norway, Oct. 13-14, 1992, [1993,eng] 48-1784
Prospective railroad construction under the Bering Strait. Kudoiarov, L.I., [1994,eng] 48-4771
Recent developments of the geographic snow information system. Granberg, H.B., et al, [1993,eng] 48-756
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099

Rubber
Durable surface coatings for rubber articles e.g. wiper blades and seal packings. Hirokawa, Y., et al, [1993,eng] 48-5523
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
Ice accretion and ice adhesion to polymer materials. Andersson, L.O., [1993,eng] 48-4003
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Radial shaft seals in arctic conditions. Välttilä, J., [1994,eng] 48-3101
Rubber composition for all-weather tires. Kida, M., et al, [1991,eng] 48-2255
Tires with polymer composition and silica filler. Rauline, R., [1993,eng] 48-4367

Rubber ice friction
Airport friction control in wintertime. Antvik, G., [1994,eng] 48-3967
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Experimental car and trailer axle cornering characteristics at low friction conditions. Vågstedt, N.G., [1994,eng] 48-3107
Indoor test of ice and snow tires on iced drum tester. Shimizu, K., et al, [1992,jpn] 48-1850
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364

Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] 48-4237
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] 48-757

Rubber snow friction

Anti-skid spike pins of hard rubber for shoes or vehicle tyres. Yamada, H., [1992,eng] 48-4425
Car tyre for snow and ice usage. Sumitomo Rubber Industries Ltd, [1993,eng] 48-5527
New information on the differences between studded and unstudded tyres. Mäkelä, T., et al, [1994,eng] 48-3096
Pneumatic tyre to improve rigidity of blocks. Yokohama Rubber Company Ltd, [1993,eng] 48-4431
Pneumatic tyre which is good as snow tyre in initial phase as summer tyre with half wear. Yokohama Rubber Company Ltd, [1993,eng] 48-4439
Pneumatic tyre with improved traction and breaking performance. Ohtsu Tire and Rubber Company Ltd, [1993,eng] 48-4432
Pneumatic tyre. Yokohama Rubber Company Ltd, [1993,eng] 48-4438
Prediction of track performance on deep snowpack. Irwin, G.J., et al, [1993,eng] 48-758
Radial tyre for improved braking performance on icy, snow and wet roads. Bridgestone Corporation, [1993,eng] 48-5528
Snow tyre having good control stability. Kodama, K., [1993,eng] 48-4433
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105
Traction device for different size tires. Parker, T.J., III, [1989,eng] 48-4077
Tyre slip prevention device. Toyo Tire and Rubber Company Ltd, [1989,eng] 48-4420
Tyre tread pattern for heavy-duty vehicle travelling on icy road. Ichiki, Y., et al, [1993,eng] 48-5526
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] 48-757

Runoff

Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] 48-2863
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins. Lawson, D.E., [1993,eng] 48-2538
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Greenland ice sheet ablation and meltwater runoff measurements. Van de Wal, R.S.W., et al, [1994,eng] 48-3514
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] 48-2949
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] 48-4973
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] 48-2552
Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] 48-2295
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.U., [1993,eng] 48-4555
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603
See [also]: Stream flow

Runoff forecasting

Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] 48-2593
Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] 48-2956
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] 48-137
Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] 48-285
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] 48-4713
Calculation of snowmelt. Shutov, V.A., [1993,eng] 48-5296
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] 48-2947
Correlation and prediction of snow water equivalent from snow sensors. McGurk, B.J., et al, [1992,eng] 48-3704
Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] 48-2768
Disaggregation models of seasonal streamflow forecasts. Grygier, J., et al, [1993,eng] 48-2955
Discharge of glacierized basins and glacier mass balance. Braun, L.N., et al, [1990,eng] 48-1573
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] 48-2019
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] 48-2458
Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] 48-4706
Estimating snow water equivalent using a GIS. McManamon, A., et al, [1993,eng] 48-684
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] 48-2945
Estimation of monthly precipitation by geographical factors and meteorological variables. Yamada, K., [1990,eng] 48-1588
Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] 48-2773
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Forecasting snowmelt volume from remote sensing data. Mushiake, N., et al, [1993,eng] 48-1681
Forecasting water supply from snowpack. Johnson, D.E., [1993,eng] 48-682
Formation and calculation of cold region runoff in the Qilian mountains. Yang, Z.H., [1990,eng] 48-1597
Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] 48-2932
Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] 48-2783
Glacio-hydrological characteristics of Gozha Glacier on south slope of the west Kunlun Mountains. Cao, Z.T., [1993,chi] 48-4591
Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] 48-2791
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] 48-2785
Gridded snow water equivalent estimation using ground-based and airborne snow data. McManamon, A., et al, [1993,eng] 48-2930
Hydro-meteorological automatic observation system and research plan. Ishikawa, N., et al, [1992,jpn] 48-3218
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526
Hydrologic modelling of flooding and runoff. Feldman, A.D., et al, [1993,eng] 48-680
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] 48-1567
Impact of the recent glacier retreat on the hydrology of an Alpine basin. Rossi, G., et al, [1994,eng] 48-5570
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] 48-2940
Improving methods for measurement and estimation of snow storage in alpine watersheds. Elder, K., et al, [1990,eng] 48-1578
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Interactive calibration for the SSARR watershed model. Rockwood, D.M., et al, [1993,eng] 48-2954
Investigation on application of grey cognate analysis for snowmelt runoff forecast. Lan, Y.C., [1993,chi] 48-4577
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al, [1990,eng] 48-1580
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] 48-5591
Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] 48-2933
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] 48-2767
Method of calculating annual runoff in terms of the seasonal total. Lobanov, V.A., et al, [1992,rus] 48-185
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
Methods of runoff computations for cold regions in modern conditions. Lobanov, V.A., [1994,eng] 48-3361
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] 48-5157
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] 48-4584
Modeling for water supply forecasting in the West. Garen, D.C., [1993,eng] 48-688
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Modeling surface flow hydrography of a spring flood in small rivers. Vodogretskii, V.E., et al, [1992,rus] 48-184
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] 48-5297
Monitoring the mass balance of mountain glaciers. Diurgerov, M.B., [1993,rus] 48-1909
National Weather Service's transition to hydrologic modeling on scientific work stations. Farnsworth, R.K., et al, [1993,eng] 48-681
Numerical investigation of infiltration into frozen soil. Tao, Y.X., et al, [1993,eng] 48-888
Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] 48-683
On the influence of alpine glaciers on runoff. Chen, J.Y., et al, [1990,eng] 48-1575
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Operational snow cover mapping by satellites and real time runoff forecasts. Seidel, K., et al, [1993,eng] 48-2779
Point modeling of snow cover water equivalent. Rohrer, M.B., et al, [1990,eng] 48-1583
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] 48-2787
Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993, [1993,eng] 48-679
Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] 48-2929
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] 48-4123
Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] 48-1582
Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] 48-2778
Role of snowmelt in generating streamflow during spring in east Nepal. Kattelmann, R.C., [1993,eng] 48-2777
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889

Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] 48-1577
Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] 48-2973
Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] 48-1598
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] 48-2766
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] 48-1579
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Snow hydrology. Nakatsugawa, M., et al, [1994,eng] 48-4931
Snow research at Lanzhou Institute of Glaciology and Geocryology. Yang, D.Q., [1993,eng] 48-1800
Snow water equivalent estimates from spatial modeling of data. Carroll, S.S., et al, [1993,eng] 48-2931
Snow wetness retrieval algorithm for SAR. Shi, J.C., et al, [1992,eng] 48-3284
Snowmelt assessment in a complex system of reservoirs (Comunidad de Madrid). Cubillo, F., [1990,eng] 48-1595
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Snowmelt in medium-high mountains and recharging of underlying karst. Chauve, P., et al, [1990,fre] 48-1574
Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] 48-2775
Snowmelt runoff forecasting. Pangburn, T., et al, [1993,eng] 48-685
Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] 48-1596
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Snowmelt runoff model using remote sensing. Koike, T., [1990,jpn] 48-3418
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] 48-2790
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] 48-4573
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff. Tranter, M., et al, [1993,eng] 48-1775
Variability of runoff from partially-glacierised alpine basins. Collins, D.N., et al, [1990,eng] 48-1587
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] 48-3656
Water resources, snow and ice. Haefner, H., et al, [1991,eng] 48-4868
Watershed modeling—spatial partitioning using GIS. Jeton, A.E., et al, [1993,eng] 48-687
Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4006
Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-3264
Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4127
Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4126

Runways

Airfield pavement evaluation: Springfield Air National Guard Base, Ohio. Buncher, M.S., et al, [1991,eng] 48-3667
Airport friction control in wintertime. Antvik, G., [1994,eng] 48-3967
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] 48-4133
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base.[1991,eng] 48-3123
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Millimeter wave system for landing aircraft in snowstorm. Huguenin, G.R., [1990,eng] 48-2163
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] 48-4916
Radioluminescent lights score high in VFR night air taxi tests. Jensen, G.A., et al, [1987,eng] 48-4134
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] 48-1171
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105
Trolley for transporting snow removal equipment on runways. Krivoshein, M.G., et al, [1992,eng] 48-5514
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017
Winter maintenance on Transport Canada airports. Anderson, F., [1993,eng] 48-5083

See [also]: Aircraft landing areas; Ice runways

Russia

Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] 48-4822
Ecological and geocryological classification of western Siberia. Chekhovskiĭ, A.L., et al, [1993,eng] 48-5194
Ecological-economic aspects of using natural resources in the European northeast of the USSR. Bratsev, A.P., ed, [1990,rus] 48-5401
Ecological-geological regionalization of the cryolithozone in the USSR. Chizhov, A.B., et al, [1993,eng] 48-2540
Ensuring and ecological safety of the gas pipelines operating in the permafrost zone. Antonov-Druzhinin, V.P., [1993,eng] 48-5192
Heating and ventilation systems for industrial buildings. Finkel'shteĭn, S.M., [1994,eng] 48-3861
HVAC technology and trade in Russia and other East European countries. Tabunshchikov, IU.A., [1994,eng] 48-3855
Importance of marine transportation for Russian Arctic. Granberg, A.G., [1993,eng] 48-182
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801
Latitudinal differentiation of vegetation along the Russo-Finnish border. IUrkovskaia, T.K., et al, [1993,rus] 48-5287
Mining machines serviceability under cold climate conditions. Larionov, V.P., et al, [1994,eng] 48-3985
Mudflood activity in the foothills of Central Asia. Salikhova, D.Kh., et al, [1992,eng] 48-4408
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
Optimal thermal regime of pipeline gas transportation in permafrost zone. Antonov-Druzhinin, V.P., [1994,eng] 48-3989
Preliminary engineering-geocryological investigations in the oil and gas bearing regions. Mel'nikov, E.S., et al, [1994,eng] 48-3401
Principles and application of mechanical ductless ventilation systems. Maevskiĭ, I., [1994,eng] 48-3862
Problems in welding of structures used in polar regions of Russia. Larionov, V.P., et al, [1994,eng] 48-3978
Problems of providing the optimum interaction between a hydraulic structure foundation and its environment in cold regions of Russia. Goldin, A.L., et al, [1994,eng] 48-3406
Proceedings, Vol.1. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] 48-348
Qualitative condition of surface waters in Komi ASSR. Kokovkin, A.V., [1990,rus] 48-5403
Radioecology of the northern and northwestern part of Russia. Aleksakhin, R.M., et al, [1993,eng] 48-4563
Recultivation of oil-contaminated soils. Chalysheva, L.V., et al, [1990,rus] 48-5404
Russian arctic shelf hydrocarbon development to proceed. George, D., [1993,eng] 48-1017
Russia's far north opened up for West. MacKenzie, D., [1993,eng] 48-2803
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] 48-4754
Strategy of developing regions in the European northeast of the USSR. Bratsev, A.P., et al, [1990,rus] 48-5402

—Akhmelo Lake

Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309

—Aldan Mountains

Floristic findings in the Aldan highlands and Tokinsky Stanovik range. Volotovskiĭ, K.A., et al, [1993,rus] 48-5285

—Amguema River

Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka). Korolev, S.IU., [1993,eng] 48-2610

—Amur River

Planned industrial regions in the Amur taiga zone. Rianskiĭ, F.N., [1989,rus] 48-902

—Anabar River

On the study of bottom fauna in Anabarskiy Gulf of the Laptev Sea. Gukov, A.IU., [1992,eng] 48-2604

—Anadyr' River

Post-technogenic variations in the cryolithozone in the southern lower Anadyr' basin. Kotov, A.N., et al, [1992,rus] 48-4799

—Arkhangelsk

Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia. McKeown, S., et al, [1994,eng] 48-3388
Pool and renovation time of soil carbon in northern taiga and tundra of European Russia. Cherkinskiĭ, A.E., et al, [1993,eng] 48-2306

—Azov, Sea of

Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245

—Baydaratskaya Bay

Laying arctic gas pipeline across Baidaratskaya Gulf. Shakirov, R.M., [1993,eng] 48-4314
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407

—Baykal, Lake

Floristic findings in the Baikal region. Zarubin, A.M., et al, [1993,rus] 48-5276

—Bestyakh

Mathematical modeling of the dynamics of permafrost thickness given a filtering layer. Kozlov, A.N., et al, [1992,rus] 48-1390

—Bol'shaya Chukochia River

Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887

—Bolshevik Island

Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632
Flora of Bolshevik Island (Severnaya Zemlya archipelago). Safronova, I.N., [1993,rus] 48-1633
Lichens collected at the bird colony in the northwestern part of Bolshevik Island (Severnaya Zemlya). Kotlov, IU.V., [1993,rus] 48-5273

—Bol'shezemel'skaya Tundra

Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra. Faustov, S.S., et al, [1993,rus] 48-3743

—Cheboksary

Long range forecasting of spring inflow into the Cheboksary reservoir. Chemerenko, E.P., [1992,rus] 48-1947

—Cherek Bezengiiskii River

Geographical analysis of the flora in the Cherek Bezengiĭskiĭ River basin (Central Caucasus). Part I. Portenier, N.N., [1993,rus] 48-4275

—Cherek Bezengiyskiy River

Geographical analysis of flora of the Cherek Bezengiyskiy River basin (Central Caucasus). Portenier, N.N., [1993,rus] 48-5280

—Chernobyl

Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244

—Chukoch'ia River

Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309

—Chukotskiy Mountains

Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient. IUrtsev, B.A., et al, [1993,rus] 48-1629

—Chukotskiy Peninsula

Analysis of a microzonal sequence of tundra plant communities of a north-facing mountain slope (western part of the Chukotskiy Upland). IUrtsev, B.A., et al, [1993,rus] 48-1639
Characteristics of shrubby willow associations in wet and moist habitats (eastern Chukotskiy Peninsula). Sekretareva, N.A., [1992,rus] 48-1625
Comparative characteristics of the flora in the vicinity of Penkigney Bay and neighboring territories. Sekretareva, N.A., [1993,rus] 48-4223
Effect of global climate changes on the cryolithozone of Chukotka. Kotov, A.N., [1992,rus] 48-4776
Finding of late Pleistocene glacier ice in the Amguema River basin (northern Chukotka). Korolev, S.IU., [1993,eng] 48-2610
Flora of the Losyanka River valley (Western Chukotka). Plieva, T.V., [1993,rus] 48-1642
Ice-navigating ships supply Chukotka. Novosel'tsev, E., et al, [1992,rus] 48-5400

Lichens of the central part of the Iskaten Mountain ridge in western Chukotskiy Peninsula. Makarova, I.I., et al, [1992,rus] 48-1623

Liverworts of Chukotka. Afonina, O.M., et al, [1993,rus] 48-1641

Second instance of *Populus balsamifera* (Salicaceae) in the eastern part of the Chukotskiy Peninsula. Katenin, A.E., [1993,rus] 48-1646

Supplements and emendations to the list of local flora in the vicinity of the Amguema Bridge (Chukotskiy Peninsula). Kucherov, I.B., [1993,rus] 48-1637

—Dikson Island

Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465

—Dolgiy Island

International Ecological Expedition to the Pechora Sea, Nova a Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717

—Dvina River

Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] 48-1946

—East Siberian Sea

Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,eng] 48-4532

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

—Far East

Protected species of vascular plants in the Komsomol'sk reservation (Russian Far East). Van, V.M., [1993,rus] 48-1638

Synopsis of the species of the subgenus *Scapiflorae* of the genus *Campanula* (Campanulaceae). Oganesian, M.E., [1993,rus] 48-1645

—Far North

Atomic "glow" of the North. Ramzaev, P.V., [1992,rus] 48-1270

Biological recultivation in the North (theory and practice). Archegova, I.B., ed, [1992,rus] 48-4147

Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual. Timofeev, A.I., et al, [1991,rus] 48-1266

Use of steam-gas plants in Northern regions. Stepanov, I.R., [1992,rus] 48-4150

—Franz Josef Land

Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] 48-5002

Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511

Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] 48-4828

Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127

Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639

Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554

Results of measurements of negative ion concentration in the Arctic stratosphere. Ermakov, V.I., et al, [1993,rus] 48-2494

Results of total ozone measurements over Heiss Island in winter, 1989. Dorokhov, V.M., [1993,rus] 48-2487

Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] 48-126

Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989. Khattatov, V.U., et al, [1993,rus] 48-2486

—Glazov Bay

Oceanographic survey near a glacier. Kutin, D.G., et al, [1992,eng] 48-2910

—Heiss Island

Results of measurements of negative ion concentration in the Arctic stratosphere. Ermakov, V.I., et al, [1993,rus] 48-2494

Results of total ozone measurements over Heiss Island in winter, 1989. Dorokhov, V.M., [1993,rus] 48-2487

Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465

Study of the ozone layer and polar stratospheric clouds on Heiss Island during the winter-spring period, 1989. Khattatov, V.U., et al, [1993,rus] 48-2486

—Indigirka River

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293

—Irkutsk

Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North. Vysotskiĭ, V.N., et al, [1989,rus] 48-906

—Iset' River

Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers. Chumichev, V.B., et al, [1993,eng] 48-4523

—Iskaten Mountain

Lichens of the central part of the Iskaten Mountain ridge in western Chukotskiy Peninsula. Makarova, I.I., et al, [1992,rus] 48-1623

—Kamchatka Peninsula

Altitudinal distribution of vascular plants in the mountains of the Kronotskiy reservation. Kuvaev, V.B., [1993,rus] 48-4225

Forest tundras of Kamchatka: problems of protection and use. Khomentovskiĭ, P.A., et al, [1989,rus] 48-901

Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia. Bursik, M., et al, [1993,eng] 48-4217

—Kara Sea

Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027

Adsorption of long-lived radionuclides on sediment from the Kara Sea. Fuhrmann, M., et al, [1993,eng] 48-4564

Anthropogenic ^{129}I in the Kara Sea. Raisbeck, G.M., et al, [1993,eng] 48-4526

Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478

Environmental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520

Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517

Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean. Nikitin, A.I., et al, [1993,eng] 48-4524

IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. Baxter, M.S., et al, [1993,eng] 48-4519

Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556

New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549

Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315

Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,eng] 48-4532

Scale of the last glaciation in the arctic basin. Pavlidis, IU.A., [1992,eng] 48-2605

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407

Survey of artificial radionuclides in the Kara Sea. Strand, P., et al, [1993,eng] 48-4514

Transport of artificial radioactivity by the Ob' to the arctic seas. Vakulovskiĭ, S.M., [1993,eng] 48-4522

Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529

—Karabolka River

Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers. Chumichev, V.B., et al, [1993,eng] 48-4523

—Kola Peninsula

Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120

Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers. Kalabin, G.V., ed, et al, [1992,rus] 48-2117

Evaluation of environmental radiational consequences after hypothetical accident on Kola nuclear power plant. Baklanov, A.A., [1993,eng] 48-4565

Impact of Chernobyl accident on the Kola Peninsula radiation conditions. Semenov, A., [1993,eng] 48-4560

Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] 48-2121

Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] 48-4557

Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution. Makarova, T.D., [1992,rus] 48-2118

—Kolguyev Island

International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717

—Kolyma

Analysis of Upper Kolyma Highland lichen flora. Kotlov, IU.V., [1993,rus] 48-4224

CO_2 monitored fluxes from northern terrestrial ecosystems. Zimov, S.A., et al, [1993,eng] 48-2310

Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] 48-3509

—Kolyma River

Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309

Composition and distribution of attached algal communities in small rivers of the Upper Kolyma River basin. Potapova, M.G., [1992,rus] 48-1624

Role of lichens in vegetation cover formation in the Upper Kolyma highlands. Kotlov, IU.V., [1993,rus] 48-5282

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293

—Komsomolets Island

Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632

—Komsomol'sk

Protected species of vascular plants in the Komsomol'sk reservation (Russian Far East). Van, V.M., [1993,rus] 48-1638

—Krasnoyarsk

Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil. Badmaeva, S.E., et al, [1992,rus] 48-4793

Problem of conservation of the water basin in the Krasnoyarsk region. Nepomniashchaia, N.V., [1993,rus] 48-1524

—Ladoga Lake

Ice formation on Ladoga Lake and its short term forecast. Sevast'ianova, N.V., [1992,rus] 48-1951

—Laptev Sea

Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478

Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskiĭ, N.I., et al, [1992,rus] 48-4802

On the study of bottom fauna in Anabarskiy Gulf of the Laptev Sea. Gukov, A.IU., [1992,eng] 48-2604

Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,eng] 48-4532

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529

—Lena River

Mathematical modeling of the dynamics of permafrost thickness given a filtering layer. Kozlov, A.N., et al, [1992,rus] 48-1390

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

—Losyanka River

Flora of the Losyanka River valley (Western Chukotka). Plieva, T.V., [1993,rus] 48-1642

—Magadan

Characteristics of the building of pile foundations in thawed and thawing ground in the Magadan region. Vlasov, V.P., [1992,rus] 48-1267

Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] 48-536

Variations in the frozen ground-hydrogeological conditions during the building and operation of an airport. Glotov, V.E., et al, [1992,rus] 48-4798

—Meshchera

Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera. D'iakonov, K.N., et al, [1993,rus] 48-3740

—Moscow

Lithology of moraines in the Moscow region and their alimentation provinces as a reflection of ice sheet structure. Sudakova, N.G., et al, [1992,rus] 48-1396

—Murman Coast

Heterotrophic bacteria in the coastal zone of the Barents Sea. Pesegov, V.G., [1991,rus] 48-2528

Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman. Il'in, G.V., [1991,rus] 48-2526

Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524

Seasonal succession of microphytoplankton in the coastal zone of East Murman. Druzhkov, N.V., et al, [1991,rus] 48-2530

Seasonal succession of zooplankton in the coastal zone of Eastern Murman. Druzhkov, N.V., et al, [1991,rus] 48-2532

—Murmansk

Pool and renovation time of soil carbon in northern taiga and tundra of European Russia. Cherkinskiĭ, A.E., et al, [1993,eng] 48-2306

Role of snow cover in the pollution of landscapes in the Murmansk region. Ratkin, N.E., et al, [1992,rus] 48-2119

—Noril'sk

Distinguishing features of pipeline construction in arctic regions. Kharionovskiĭ, V.V., [1994,eng] 48-3990

—Novaya Zemlya

Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726

Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478

Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
History of research on Novaya Zemlya. Nikandrov, O.M., et al, [1993,rus] 48-1906
International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556
Nevada—Novaya Zemlya. Matushchenko, A.M., et al, [1992,rus] 48-1268
Oceanographic survey near a glacier. Kutin, D.G., et al, [1992,eng] 48-2910
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512
Radionuclides in the bottom sediments and biota of the shelf and Barents Sea coasts. Matishov, G.G., et al, [1993,eng] 48-4554
Survey of artificial radionuclides in the Kara Sea. Strand, P., et al, [1993,eng] 48-4514

—Ob' River

Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers. Chumichev, V.B., et al, [1993,eng] 48-4523
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555
Species composition of the golden algae *(Chrysophyta)* from the Ob' River. Naumenko, IU.V., [1992,rus] 48-1627
Transport of artificial radioactivity by the Ob' to the arctic seas. Vakulovskiĭ, S.M., [1993,eng] 48-4522

—Omoloy River

Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskiĭ, N.I., et al, [1992,rus] 48-4802

—Palyavaam River

Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient. IUrtsev, B.A., et al, [1993,rus] 48-1629

—Pechora River

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

—Penkigney Bay

Comparative characteristics of the flora in the vicinity of Penkigney Bay and neighboring territories. Sekretareva, N.A., [1993,rus] 48-4223

—Protva River

Fluvial lithomorphogenesis in the Protva River valley. Antonov, S.I., et al, [1993,rus] 48-3742

—Sakhalin Island

Design concepts for Sakhalin offshore production platforms. Gulati, K.C., [1993,eng] 48-139
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al, [1993,eng] 48-176
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone. Truskov, P.A., et al, [1993,eng] 48-1048
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] 48-1047

—Sebayakha River

Leafy mosses in the middle current of the Sebayakha River (Central Yamal). Cherniad'eva, I.V., [1993,rus] 48-5283

—Severnaya Dvina River

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

—Severnaya Zemlya

Bryophytes and lichens of the Komsomolets and Bolshevik Islands (Severnaya Zemlya archipelago). Andreev, M.P., et al, [1993,rus] 48-1632
Flora of Bolshevik Island (Severnaya Zemlya archipelago). Safronova, I.N., [1993,rus] 48-1633
Lichens collected at the bird colony in the northwestern part of Bolshevik Island (Severnaya Zemlya). Kotlov, IU.V., [1993,rus] 48-5273

—Shantar Islands

Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands. Perestenko, L.P., [1993,rus] 48-5274

—Siberia

Accumulation and use of wastes as an integral part of the use of natural resources (Eastern Siberia). Zabortseva, T.I., [1989,rus] 48-905
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Caryopteris mongholica (Verbenaceae)—rare species of Siberian flora: its biology and introduction. Semenova, G.P., [1993,rus] 48-1631
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] 48-3761
Chronological study of the taxonomic structure of *Poa* of the section *Stenopoa* (Poaceae) in Siberia. Olonova, M.V., [1993,rus] 48-5277
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Cryolithozone as an indicator of current climate change (Western Siberia). Shpolianskaia, N.A., [1992,rus] 48-4777
Delta ^{13}C-analysis of permafrost soil samples of NE- Siberia. Pfeiffer, E.M., et al, [1993,eng] 48-2304
Designing a plant for precast reinforced concrete for regions of Siberia and the Far North: training manual. Timofeev, A.I., et al, [1991,rus] 48-1266
Destruction of cometary ice. Kaĭmakov, E.A., et al, [1988,rus] 48-308
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] 48-5388
Factoral-genetic systematization of Middle Siberia subarctic soils. Ershov, IU.I., [1993,eng] 48-2279
Flora of Siberia. Volume 5: Salicaceae—Amaranthaceae. Krasnoborov, I.M., ed, et al, [1992,rus] 48-3722
Floristic findings in the Stanovo Nagor'e (Eastern Siberia). Chechetkina, L.G., [1993,rus] 48-1636
Forest resources of Siberia. Sokolov, V.A., et al, [1994,eng] 48-2481
Forest-growing potential of soils in the mountain boreal forests of southern Siberia. Ermolenko, L.G., et al, [1991,rus] 48-4145
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Geological-engineering conditions of Yamal peninsula along designing railroad. Mamzelev, A.P., et al, [1993,eng] 48-432
Geothermal regime of cryolithozone of West Siberia. Deviatkin, V.N., et al, [1993,eng] 48-374
Hydraulics of timber rafting and navigable rivers in Siberia. Sergutin, V.E., [1993,rus] 48-5268
Institutes of the Siberian Branch of the Russian Academy of Sciences working on Siberian ecology.[1994,eng] 48-2482
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Lecanora geophila and *Arctpeltis thuleana* (Lichenes) from the Siberian Arctic. Zhurbenko, M.P., et al, [1993,rus] 48-4227
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] 48-2480
Massive ice beds of western Siberia: structure and history in Pleistocene. Shpolianskaia, N.A., [1993,eng] 48-531
Means of optimizing the water regime of soils in the steppe landscapes of Siberia. Kochurov, B.I., [1990,rus] 48-2073
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] 48-456
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
New species of the genus *Aquilegia* (Ranunculaceae) from Eastern Siberia. Vasil'eva, I.M., [1992,rus] 48-1626
Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] 48-515
Permafrost surveys in western Siberia. Burn, R.A., et al, [1993,eng] 48-361
Plant resources of Siberia: their contemporary state and protection. Koropachinskiĭ, I.IU., et al, [1994,eng] 48-2479
Problem of rational use and protection of forest resources in the West Siberian North. Bud'kov, S.T., [1989,rus] 48-904
Problems in the use of natural resources in the taiga zone. Mikhailov, IU.P., ed, et al, Expanded session of the Scientific Council of the Siberian Branch of the Academy of Sciences of the USSR on the combined development of taiga territories, 16th, Irkutsk, 24-25 Nov. 1987, [1989,rus] 48-900
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Regional geochronological study of Late Pleistocene permafrost. Kostiukevich, V.V., [1993,eng] 48-3611
River bed forming deposits in rivers of northern Eurasia. Lodina, R.V., [1993,rus] 48-3741
Second instance of *Viola incisa* (Violaceae) in Central Siberia. Ivanova, M.M., et al, [1993,rus] 48-1635
Siberian permafrost mapping. Meltzer, L.L., [1993,eng] 48-527
Siberian permafrost surveys. Kurfurst, P.J., et al, [1993,eng] 48-415
Soil cover of the southern taiga in Central Siberia. Gorbachev, V.N., et al, [1992,rus] 48-4149
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Specific nature of delta development in river estuaries in the arctic zone of Siberia. Korotaev, V.N., [1992,rus] 48-4785
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Synopsis of the species of the subgenus *Scapiflorae* of the genus *Campanula* (Campanulaceae). Oganesian, M.E., [1993,rus] 48-1645
Territorial plan for environmental protection in gas producing regions in Western Siberia. Bud'kova, M.A., [1989,rus] 48-903
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529

—Sikhote Alin

Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils. Minkovskiĭ, G.M., et al, [1993,eng] 48-2292

—Stanovoy Mountains

Floristic findings in the Aldan highlands and Tokinsky Stanovik range. Volotovskiĭ, K.A., et al, [1993,rus] 48-5285

—Taymyr Peninsula

Classification of meadow communities of the tundra zone on the Taymyr Peninsula: the *Pediculari verticillatae-Astragaletum arctici* association. Zanokha, L.L., [1993,rus] 48-1643
Information content of paleobotanical material from eastern Taymyr. Kozhevnikov, IU.P., et al, [1993,rus] 48-1640
Two new lichen species found in Taymyr Peninsula. Zhurbenko, M.P., et al, [1993,eng] 48-1634

—Techa River

Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers. Chumichev, V.B., et al, [1993,eng] 48-4523
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528
Radioactive contamination of topsoil in the lower reaches of Techa River in the Urals. Pozolotina, V., et al, [1993,eng] 48-4527

—Tian Shan

Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943

—Tien Shan

Predicting a lake outburst in Tien Shan. Konovalov, V.G., [1990,eng] 48-1581

—Timanskiy Kryazh

Problems of genesis and classification of north taiga soils of the European Russia. Vtiurin, G.M., [1993,eng] 48-2280

—Transbaikal

Mikrobiologiia krioaridnykh pochv (na primere Zabaĭkal'ia). Nimaeva, S.Sh., [1992,rus] 48-3633
Regularities of perennially frozen ground forming in southern Zabaikalie. Sal'nikov, P.I., [1993,eng] 48-530

—Tugur Bay

Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836

—Udokan Range

Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237

—Ural Mountains

Questions on the melioration of taiga soils in the Transural. Bachurin, G.V., et al, [1989,rus] 48-907
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528

—Vaygach Island

International Ecological Expedition to the Pechora Sea, Novaya Zemlya, Vaygach, Kolguyev, and Dolgiy islands. Matishov, G.G., ed, [1992,rus] 48-717

—Vilyuy River

Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs. Kharchenko, P.IU., et al, [1992,rus] 48-1949

—Vladivostok

Experimental study of ice-cylindrical pile interaction. Bekker, A.T., et al, [1993,eng] 48-4317

—White Sea

Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991. Sapozhnikov, V.V., [1992,eng] 48-2606
New radioecological data for the Russian Federation (from Alaska to Norway). Miretskiĭ, G.I., et al, [1993,eng] 48-4549
Pleistocene deposits of the White Sea and its coast. Nemtsova, G.M., et al, [1993,rus] 48-3744
Processes of bacterial production and destruction of organic matter in northern seas. Teplinskaia, N.G., [1990,rus] 48-305
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,er ;] 48-4532
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

—Wrangel Island

Arctic aerosol molecular composition from measurements on Wrangel Island. Shukurova, L.M., et al, [1993,eng] 48-1755
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Role of snow cover in the differentiation of vegetation in southern Wrangel' Island: the cenotic level. Kholod, S.S., [1993,rus] 48-1630
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting. Kholod, S.S., [1993,rus] 48-4226

—Yakutia

Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309
Characteristics of the layout and operation of meliorative channels in Yakutia. Chzhan, R.V., et al, [1992,rus] 48-4786
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788

Construction in polar regions using local raw materials. Cherskiĭ, I.N., et al, [1994,eng] 48-3948
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Developing means of controlling weeds in meadow agrophytocenoses. D'iachkovskiĭ, V.V., [1988,rus] 48-915
Dynamics of frozen terrain in Central Yakutia after technogenic exposure. Fedorov, A.N., et al, [1992,rus] 48-4797
Dynamics of the decomposition of butyl 2,4-D ether in frozen soils. Chakhov, V.K., et al, [1988,rus] 48-913
Dynamics of the elements of climate and the strength of the active layer in western Yakutia. Vasil'ev, I.S., [1992,rus] 48-4779
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Effect of anthropogenic factors on the intensity of cryogenic processes. Bosikov, N.P., [1988,rus] 48-909
Environmental protection in the design of land irrigation and water supply (Yakutia). Fedorov, P.F., [1992,rus] 48-4792
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] 48-2541
Flora of the lower reaches of the Yana River (Northern Yakutia). Petrovskiĭ, V.V., [1992,rus] 48-1628
Formation of suprapermafrost ground water on alassy. Arkhipov, V.V., [1988,rus] 48-914
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] 48-2542
Local introduction of fertilizer. Antipina, D.K., [1988,rus] 48-912
Microelements in soils of southern Yakutia. Shindler, D.R., et al, [1992,rus] 48-4146
On the study of nival deposits in Yakutia. Kunitskiĭ, V.V., [1993,eng] 48-524
Problems in the rational use of alassy. Desiatkin, R.V., [1988,rus] 48-910
Problems of power and transport industries in the Asian polar regions of Russia. Bredikhin, V.I., et al, [1994,eng] 48-3949
Questions on the preservation of frozen straw-colored soils. Sleptsov, V.I., et al, [1988,rus] 48-911
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] 48-2284
Use and preservation of agricultural resources of Yakutia; collected scientific papers. Konorovskiĭ, A.K., ed, [1988,rus] 48-908
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543

—Yakutsk

Gas pipeline Mastakh-Yakutsk and environment. Kamenskiĭ, R.M., et al, [1993,eng] 48-409

—Yamal Peninsula

Chemical and physical features of the active layer as related to landslides on Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-2299
Cryogenic landslides and their interaction with linear constructions on Yamal Peninsula, Russia. Leibman, M.O., [1994,eng] 48-3408
Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] 48-3404
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-419
Leafy mosses in the middle current of the Sebayakha River (Central Yamal). Cherniad'eva, I.V., [1993,rus] 48-5283
Northernmost project. Stepanov, S., [1993,rus] 48-1907
Origin of dislocations in frozen sediments of the Yamal Peninsula. Velikotskiĭ, M.A., [1992,rus] 48-1394
Permafrost along the Yamal Peninsula gas pipeline. Baulin, V.V., et al, [1993,eng] 48-5193
Soil cover of river valleys of the Yamal Peninsula. Gafurov, F.G., [1993,eng] 48-2283
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] 48-533
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula. Rebristaia, O.V., et al, [1993,rus] 48-1644

—Yana River

Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskiĭ, N.I., et al, [1992,rus] 48-4802
Flora of the lower reaches of the Yana River (Northern Yakutia). Petrovskiĭ, V.V., [1992,rus] 48-1628

—Yenisey River

Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555

Safety

Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] 48-1764
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] 48-4964
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] 48-5027
Aircraft icing. Lansford, H., [1990,eng] 48-1921
Analysis of the traffic accident data base. Murai, S., et al, [1993,jpn] 48-1974
Applications of recycled plastics for roadside safety hardware. Dutta, P.K., et al, [1994,eng] 48-3268
Avalanche flotation ball. Manix, T.J., [1990,eng] 48-2167
Avalanche forecasting in France. Pahaut, E., [1993,ita] 48-1131
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] 48-2127
Avalanche handbook. McClung, D.M., et al, [1993,eng] 48-1945
Avalanche safety for skiers & climbers. Daffern, T., [1992,eng] 48-1933
Avoiding aircraft icing. Horne, T.A., [1993,eng] 48-2881
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Climbing ice. Chouinard, Y., [1978,eng] 48-1930
Composites for roadside hardware. Dutta, P.K., et al, [1993,eng] 48-2094
Comprehensive analysis of the safety conditions in condensed gas plants in the Far North. Zabusov, V.V., [1993,rus] 48-1908
Criteria of radiation and seismic safety of underground nuclear tests. Dumik, V.P., et al, [1993,eng] 48-4547
Current status and study topics for the dissemination of road traffic information. Shibata, M., et al, [1986,jpn] 48-255
Danish operational slippery-road-warning system and prospects for the future. Voldborg, H., [1993,eng] 48-1205
Deaths and injuries from snow accidents in Japan. Numano, N., [1993,jpn] 48-3185
Development of regulations for certification of civil aviation under icing conditions. Cattaneo, G., [1991,fre] 48-3686
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] 48-1735
Dog sled safety on ice. Collins, J., [1994,eng] 48-3270
Draft for a guide on safety measures for sidewalk snow removal equipment. Yamamoto, H., et al, [1989,jpn] 48-677
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Ensuring and ecological safety of the gas pipelines operating in the permafrost zone. Antonov-Druzhinin, V.P., [1993,eng] 48-5192
Ergonomic machinery design for cold weather use. Väyrynen, S., [1992,eng] 48-4967
Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100
Glacier travel and crevasse rescue. Selters, A., [1990,eng] 48-1934
Growth of avalanche education in Japan. Nitta, R., et al, [1994,eng] 48-3277
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] 48-3232
Hazards in North American glacierized basins from global warming. O'Connor, J.E., et al, [1993,eng] 48-3557
Ice certification of the Dornier 328 regional airliner. Welte, D., et al, [1991,eng] 48-3693
Ice jam data collection. White, K.D., et al, [1994,eng] 48-5406
Ice: escape & evade. Cox, B., [1990,eng] 48-1919
Inflatable rucksack for avalanche survival. Rodger, I., [1994,eng] 48-3272
Investigative report on line of sight in the effectiveness of snow advisory display signs. Kaku, T., [1991,jpn] 48-4240
Microwave locator of objects buried in snow. Fitzgerald, L., [1994,eng] 48-3276
Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] 48-2861
Modern snow and ice techniques. March, B., [1984,eng] 48-1958
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
Pedestrian anti-skid winter footwear. Gard, G., et al, [1994,eng] 48-3947
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] 48-1544
Poor visibility caused by snow whirl behind vehicles. Fukuzawa, Y., [1993,jpn] 48-3171
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] 48-4237
Proceedings. International Conference on Accidents and Their Prevention in Circumpolar Regions, Rovaniemi, Finland, Feb. 14-16, 1992, [1992,eng] 48-4961
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] 48-1186
Prospects for measures to safeguard road traffic in winter. Wada, J., [1987,jpn] 48-270
Protective clothing against cold. Holmér, I., [1992,eng] 48-4968
Refining de-icing tactics.[1994,eng] 48-3237
Regulatory requirements for floating drilling units in the Arctic. Regg, J., [1993,eng] 48-789
Results of a field test of six different ice warning systems. Scharsching, H., [1993,eng] 48-1204
Roadside message system for icing conditions. Nishihara, H., et al, [1987,jpn] 48-279
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Rutschblock precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] 48-3593
Safety in the operation of cryogenic systems at the South Pole. Francis, A., [1993,eng] 48-1358
Safety in the use of four-wheeled all-terrain vehicles in Finland. Pekkarinen, A., et al, [1992,eng] 48-4966
Snow avalanche protection program and structural design—case study of Maseguchi area. Fujisawa, K., [1994,eng] 48-4932
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] 48-2818
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-4026
Snow sense: a guide to evaluating snow avalanche hazard. Fredston, J.A., et al, [1988,eng] 48-1957
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Study on hindrance to visibility and to the driver's visual point by blowing snow. Kaku, T., [1992,jpn] 48-4239
Study on traffic volume at signal controlled intersections in winter. Sotoi, T., et al, [1986,jpn] 48-21
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] 48-1199
Traffic on ice and snow. Øberg, G., [1993,eng] 48-5061
Transcription of presentations. SAE Aircraft Ground Deicing Conference, Salt Lake City, UT, June 15-17, 1993, [1993,eng] 48-1107
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
Visibility reduction by snow in the wake of highway vehicles. Fukuzawa, Y., et al, [1993,jpn] 48-1968
Visibility reduction caused by snow and a driver's eye movement. Ishimoto, K., et al, [1993,jpn] 48-1967
Visibility reduction caused by snow in the wake of vehicles on highways. Ishimoto, K., et al, [1993,eng] 48-1201
Warning system for snow avalanches. Terada, H., [1994,eng] 48-4933
Winter ground gremlins. Cox, B., [1990,eng] 48-1920
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] 48-1198
Winter operations guidance for air carriers, and other adverse weather topics. U.S. Federal Aviation Administration, [1982,eng] 48-1144

See [also]: Accidents

Saline ice

See [also]: Salt ice

Saline soils

Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] 48-497
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] 48-376
Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Best compaction dry density study of sulphate salty soil. Fei, X.L., et al, [1993,chi] 48-1449
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Compressing properties and salt heaving mechanism study of sulphate salty soil. Fei, X.L., et al, [1993,eng] 48-5204
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] 48-1102
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637
Electromagnetic wave propagation in saline permafrost. Fedulkin, I.V., et al, [1993,eng] 48-381
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
Heat and mass transfer in frozen saline kaolin. Xu, X.Z., et al, [1992,chi] 48-2009
Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] 48-1408
Impact of salt type on deformation of frozen saline soils. Roman, L.T., et al, [1993,eng] 48-5234
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] 48-483
Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] 48-1402
Plastic frozen (saline) soil as bases. Aksenov, V.I., et al, [1993,eng] 48-349
Second order phase change in saline freezing soil. Zhang, L.X., et al, [1992,chi] 48-1411
Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] 48-3706
Specificity of the phase transformations in the cryogenic saline sandy soils. Frolov, A.D., et al, [1993,eng] 48-2300

Study on the general thermal parameters of the frozen NaCl soil. Zhang, L.X., et al, [1993,chi] 48-1436
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Thermophysical and electric properties of saline frozen soils. Frolov, A.D., et al, [1993,eng] 48-890
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] 48-357
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366
Unfrozen water content and freeze-thaw in saline soil. Zhang, L.X., et al, [1993,chi] 48-1434
Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] 48-1404
Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] 48-1403

Salinity
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] 48-2008
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] 48-3393
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Effects of Pleistocene ice sheet melting on Arctic Ocean circulation. Andrews, J.T., et al, [1993,eng] 48-1248
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] 48-1075
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] 48-1060
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] 48-4199
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] 48-3766
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] 48-2904
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] 48-483
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] 48-2897
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Omstedt, A., et al, [1994,eng] 48-4413
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line). Fujimura, M., [1993,jpn] 48-1031
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Probable deep winter convection in Fram Strait. Bogorodskii, P.V., et al, [1992,eng] 48-1767
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
Surface temperature and salinity of the Okhotsk Sea. IAkunin, L.P., [1993,eng] 48-1088
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Water exchange between the Okhotsk Sea and Pacific Ocean. Kawasaki, Y., et al, [1993,eng] 48-1030
Water mass fine structure around Kuril Islands. Kono, T., et al, [1993,eng] 48-1029
See [also]: Ice salinity

Salt content
See [also]: Salinity

Salt ice
Adhesion of fresh and saline ice to bare and coated steel surfaces. Nelson, W.G., et al, [1994,eng] 48-3022
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] 48-1867
Measurement of ice fraction in NaCl solution with FTIR. Mizoguchi, M., et al, [1992,eng] 48-293
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Tensile fracture of saline ice. DeFranco, S.J., [1993,eng] 48-3533

Salt spray
See [also]: Sea spray

Salt water
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Some topics on melting heat transfer problems. Fukusako, S., et al, [1993,eng] 48-858
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697
See [also]: Sea water

Salting
Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] 48-1764
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] 48-4025
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] 48-4133
Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] 48-1763
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Effect of deicers in relation to meteorological conditions. Kadoyama, Y., et al, [1989,jpn] 48-704
Effectiveness of calcium magnesium acetate deicer. Perchanok, M.S., et al, [1992,eng] 48-3069
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272
Field tests of liquid salt and pre-wetted salt. Raukola, T., et al, [1993,fin] 48-3067
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
Goals and methods of winter maintenance in Finland. Katko, K., [1993,eng] 48-1188
Good ideas to improve winter maintenance.[1994,eng] 48-5300
Highway de-icers: standards, practice and research in the Province of Ontario. Perchanok, M.S., et al, [1991,eng] 48-3068
How you can evaluate wetted salt.[1994,eng] 48-5302
Lake County modifies deicing spreaders.[1994,eng] 48-4248
Melting with salt and heating with ice. Bohren, C., [1994,eng] 48-3239
Methods and materials for snow and ice control on Swedish roads and runways. Gustafson, K., [1993,eng] 48-1193
Metro Division snow and ice research field studies 1992-1993 winter season. Barnes, M., [1993,eng] 48-4905
MINSALT—extension of the regions in Sweden where salt is not used: effect studies. Øberg, G., [1993,eng] 48-1208
Oregon experiments with anti-icing operations.[1994,eng] 48-4254
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] 48-1186
Proposal for new winter road maintenance strategy—MINSALT project. Axelson, L., [1993,eng] 48-1189
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089
Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025
Science of snow and ice (10). Inoue, M., [1987,jpn] 48-544
Snow and ice control in Japan and United States. Minsk, L.D., et al, [1993,eng] 48-2673
Snow and ice countermeasures on highways. Hayashi, Y., [1987,jpn] 48-277
To salt or not to salt. What are the alternatives. Samuels, J., [1989,eng] 48-2043
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192
White Spot Program in Denmark. Kasai, A., [1987,jpn] 48-549
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] 48-1198
Winter maintenance of national roads in Norway. Leland, T., [1993,eng] 48-1190
Winter maintenance on porous asphalt. Noort, M., [1991,eng] 48-3070
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938

Samplers
See [also]: Core samplers; Permafrost samplers; Snow samplers

Sampling
AASE-II observations of trace carbon species distributions in the mid to upper troposphere. Anderson, B.E., et al, [1993,eng] 48-2584
Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] 48-2833
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] 48-5451
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] 48-2386
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] 48-5002
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] 48-5138
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] 48-3916
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Arctic Ocean benthic foraminifera from the North Pole to the Yermak Plateau. Bergsten, H., [1994,eng] 48-5636
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Arctic sediments (Svalbard): consumption and microdistribution of oxygen. Hulth, S., et al, [1994,eng] 48-5026
Arctic/antarctic atmospheric methane comparisons from ice cores. Nakazawa, T., et al, [1993,eng] 48-948
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Atmospheric methane record from a Greenland ice core over the last 1000 years. Blunier, T., et al, [1993,eng] 48-2212
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] 48-2461
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] 48-3891
Background levels of formate and other ions in ice cores from inland Greenland. Osada, K., et al, [1993,eng] 48-4654
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] 48-2008
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Brominated aerosols and arctic ozone destruction. Sheridan, P.J., et al, [1993,eng] 48-3896
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Carotenoids in West Greenland lichens. Czeczuga, B., et al, [1993,eng] 48-2425
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] 48-42

Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] 48-4060
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] 48-3825
Concentration stability of four volatile organic compounds in soil subsamples. Hewitt, A.D., [1994,eng] 48-5411
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Correlations among atmospheric CO_2, CH_4 and CO in the Arctic, March 1989. Conway, T.J., et al, [1993,eng] 48-3900
Depletion of tropospheric ozone during arctic spring. Bottenheim, J.W., et al, [1990,eng] 48-3133
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] 48-3885
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] 48-3884
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] 48-2453
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] 48-3755
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] 48-4844
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] 48-2049
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] 48-4485
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Grinding of frozen soil samples. Esala, M.J., [1994,eng] 48-5389
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Haloperoxidase activities in arctic macroalgae. Mehrtens, G., [1994,eng] 48-5367
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] 48-3258
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] 48-3056
Ice core indications of Northern Hemisphere methane variations. Dibb, J.E., et al, [1993,eng] 48-3254
Ice core sulfate from Northern Hemisphere sites. Mayewski, P.A., et al, [1993,eng] 48-3904
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
In situ measurement of polar stratospheric chemistry. Webster, C.R., et al, [1993,eng] 48-2580
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Insoluble particles in polar ice. Ram, M., et al, [1994,eng] 48-4443
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] 48-3558
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] 48-3201
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] 48-5146
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Losses of trichloroethylene from soil during sample collection, storage and laboratory handling. Hewitt, A.D., [1994,eng] 48-5149
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] 48-4977
Measurements of CO_2 and CH_4 concentrations in air in a polar ice core. Nakazawa, T., et al, [1993,eng] 48-2383
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] 48-1818
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] 48-2582
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] 48-2374
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219
Occurrence of green algae on Ellesmere I. Hamilton, P.B., et al, [1994,eng] 48-5131
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] 48-4598
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] 48-2585
Particle analyses of arctic aerosol samples. Parungo, F., et al, [1993,eng] 48-3895
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Phytoplankton samples from the Barents and Greenland Seas. Okolodkov, IU.B., [1993,eng] 48-5001
Polar atmosphere nitrous oxide morphology during AASE II. Podolske, J.R., et al, [1993,eng] 48-2583
Polar ice core records over the past 100,000 years. Neftel, A., et al, [1993,eng] 48-3057
Precautions for air trajectory interpretation of atmospheric chemistry. Kahl, J.D., [1993,eng] 48-3917
Preliminary evaluation of the analytical holding time for white phosphorus in surface water. Walsh, M.E., et al, [1994,eng] 48-5405
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] 48-3045
Qualitative determination of source regions of aerosol in Canadian High Arctic. Cheng, M.D., et al, [1993,eng] 48-1741
Quaternary geology of the shelf areas surrounding Franz Josef Land. Matishov, G.G., et al, [1994,eng] 48-5639
Quaternary paleoceanography of the Arctic Ocean. Cronin, T.M., et al, [1994,eng] 48-5640
Radiation on the Kola Peninsula, Novaya Zemlya, Franz-Josef Land and the Barents Sea. Matishov, G.G., et al, [1993,eng] 48-2747
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] 48-3888
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] 48-2578
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] 48-3319
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] 48-3889
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] 48-3914
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] 48-3892
Size distributions and chemical properties of aerosols at Ny Ålesund, Svalbard. Covert, D.S., et al, [1993,eng] 48-3912
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] 48-3887
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Spring 1989 observations of lower tropospheric chemistry in the Canadian High Arctic. Kieser, B.N., et al, [1993,eng] 48-3911
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] 48-2587
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Temporal variation in aerosol composition at Summit, Greenland, summer 1989. Winchester, J.W., et al, [1993,eng] 48-3915
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Two-hundred-year record of biogenic sulfur in a south Greenland ice core (20D). Whung, P.Y., et al, [1994,eng] 48-4597
Vapor-fortified QA/QC samples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-5408
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] 48-3609
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] 48-2581
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
See [also]: Ice sampling

Sanding
Porous inert road grit. Canzani, A., [1990,eng] 48-2171

Sands
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Characteristic of shear creep of frozen fine sand. Mi, H.Z., et al, [1993,chi] 48-4579
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788

Creep effects on a laterally loaded pile. Domaschuk, L., et al, [1993,eng] 48-377
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] 48-3391
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Origin and environmental meanings of the sand deposit along Qinghai-Xizang Highway. Zhao, X.F., [1992,chi] 48-1488
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] 48-401
Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] 48-3706
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Strength characteristic of frozen sandy soil. Wu, Z.W., et al, [1993,chi] 48-1445
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105

Sanitary engineering
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors. Olofsson, J.A., et al, [1994,eng] 48-3375

SAR
See [also]: Synthetic aperture radar

Sastrugi
Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] 48-3421
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] 48-4671
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908

Satellites
See [also]: Spacecraft

Satellites (natural)
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] 48-923
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] 48-3591
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] 48-1106
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Reports of planetary geology and geophysics program, 1990.[1991,eng] 48-3696
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] 48-1508
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] 48-1750
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Triton's surface-atmosphere energy balance. Stansberry, J.A., et al, [1992,eng] 48-1605
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608

Saturation
Coefficients of linear expansion of freezing soils. Mordovskiĭ, S.D., et al, [1993,eng] 48-70
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] 48-2378
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] 48-4837
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Rock moisture data from Livingston I. Hall, K., [1993,eng] 48-5051
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] 48-357
See [also]: Supersaturation

Saws
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] 48-5177

Scandinavia
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] 48-1010

Scanning electron microscopy
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
Motion of non-basal dislocations in ice crystals. Wei, Y.C., et al, [1994,eng] 48-2749
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] 48-2671
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247

Scattering
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] 48-4819
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] 48-2004
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] 48-3594
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] 48-2145
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] 48-1338
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice sheet volume changes derived from satellite altimetry. Davis, C.H., [1993,eng] 48-1226
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] 48-4807
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Longwave radiative properties of polydispersed hexagonal ice crystals. Chýlek, P., et al, [1994,eng] 48-3807
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Model predicting the ice particle size of cirrus clouds, pt.2. Mitchell, D.L., et al, [1994,eng] 48-4690
Modeling of cirrus bidirectional reflectances. Brogniez, G., et al, [1993,eng] 48-2988
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] 48-2989
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] 48-2871
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Polarimetric radar modeling of mixtures of precipitation particles. Vivekanandan, J., et al, [1993,eng] 48-2107
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] 48-4165
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Studies of the radiative properties of ice and mixed-phase clouds. Sun, Z., et al, [1994,eng] 48-2592
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
See [also]: Backscattering; Light scattering; Neutron scattering

Scavenging
Activity of Be-7 and Pb-210 in snow samples at Terra Nova Bay-Antarctica: preliminary results. Bettoli, M.G., et al, [1993,eng] 48-4541
Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] 48-2958
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Aerosol-cloud interactions. Hobbs, P.V., [1993,eng] 48-1879
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Atmospheric constituents in high alpine ice cores. Gäggeler, H., et al, [1994,eng] 48-2717
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] 48-3154
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}Pa. Scholten, J.C., et al, [1993,eng] 48-4545
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] 48-3886
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
HT deposition to snow. Chalk River Laboratories, March, 5-6, 1991. Ogram, G.L., [1992,eng] 48-2644
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] 48-3147
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219
Size distributions of atmospheric trace elements at Dye 3, pt.2. Jaffrezo, J.L., et al, [1993,eng] 48-3893
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Thorium isotopes as indicators of scavenging rates in the Arctic Ocean. Cochran, J.K., et al, [1993,eng] 48-4543
Three dimensional cloud dynamics model, pt.4. Wang, C., et al, [1993,eng] 48-953
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234
Two-ion ice particle model of the polar summer mesopause region. Klostermeyer, J., [1994,eng] 48-4050

Scotia Sea
Ammonium regeneration in the Scotia-Weddell Confluence area during Spring 1988. Goeyens, L., et al, [1991,eng] 48-3736
Biology of the Weddell/Scotia Confluence and of the ice edge. Bianchi, F., et al, [1992,ita] 48-4212
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094

Sea air interaction
See [also]: Air water interactions

Sea clutter
Suppression of sea-ice clutter and detection of targets. Chikara, S., et al, [1990,jpn] 48-4684

Sea current gages
See [also]: Flow measurement

Sea currents
See [also]: Ocean currents

Sea floor
See [also]: Ocean bottom

Sea ice
^{234}Th and ^{210}Po disequilibrium as a tracer of particle production and sinking associated with plankton blooms. Shimmield, G., [1993,eng] 48-4540
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006

Action of sea ice on offshore construction. Rogachko, S.I., et al, [1994,eng] 48-3027
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Algae in the annual sea ice at Hooker Island, Franz Josef Land, in August 1991. Okolodkov, IU.B., [1993,eng] 48-5002
Analysis and research of ice loads acting on offshore structures. Ji, C.Q., [1993,eng] 48-4012
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] 48-1704
Antarctic career move for ageing torpedo. Anderson, I., [1993,eng] 48-3626
Antarctic stratigraphic drilling, Cape Roberts project, Workshop report. Barrett, P.J., ed, et al, [1992,eng] 48-2319
Arctic Ocean gravity field derived from ERS-1 satellite altimetry. Laxon, S., et al, [1994,eng] 48-5107
Arctic response to CO_2-induced climatic warming. Cattle, H., et al, [1993,eng] 48-4205
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Atmospheric and oceanographic studies in Lake Saroma. Shirasawa, K., et al, [1993,eng] 48-1073
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] 48-5163
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Can sea ice be responsible for climate change?. Zakharov, V.F., [1992,eng] 48-733
Chemical and isotopic distribution in ice due to water freezing in Antarctica. Souchez, R., et al, [1993,eng] 48-2137
Chemical fractionation in sea ice and glacier ice. Gjessing, Y., et al, [1993,eng] 48-1854
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Circulation and water mass formation in the Weddell Sea. Fahrbach, E., [1993,ger] 48-767
Climatic changes during the past 18,000 years: regional syntheses, mechanisms, and causes. Webb, T., III, et al, [1993,eng] 48-2978
Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] 48-4481
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Cooling of the Arctic and the ice cover of the arctic seas. Zakharov, V.F., [1992,rus] 48-1478
Correction to paper by S.G. Warren et al. Warren, S.G., et al, [1993,eng] 48-1150
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] 48-1749
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] 48-1683
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] 48-3002
Discrete element modelling of a broken ice field—part I: model development. Løset, S., [1994,eng] 48-5111
Distribution of antarctic diatoms in the Weddell Sea during austral winter. Moisan, T.A., et al, [1993,eng] 48-3735
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] 48-3829
Dynamic finite-difference analysis of ice destruction due to interaction with vertical offshore structures. Matskevich, D.G., [1994,eng] 48-3028
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Effects of sea ice cover on cirrus cloud IR detection. Gao, B.C., et al, [1994,eng] 48-3758
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Eocene to Oligocene oceanography and temperatures in the antarctic Indian Ocean. Barrera, E., et al, [1993,eng] 48-3290
Errata. Global warming: a polar approach. Wadhams, P., [1992,eng] 48-1535
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Expedition ARKTIS-IX/1 of RV *Polarstern* in 1993. Eicken, H., ed, et al, [1994,eng] 48-3927
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] 48-2692
Exploring the southern ocean response to climate change. Final report. Martinson, D.G., et al, [1993,eng] 48-3817
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342
Filchner-Ronne Ice Shelf elevation, ice thickness and structure mark maps. Thyssen, F., et al, [1993,eng] 48-4152
Final report of Operation Deep Freeze '91 (1990-91). U.S. Naval Support Force Antarctica, [1991,eng] 48-1531
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] 48-4471
Flexural strength equation for sea ice. Timco, G.W., et al, [1994,eng] 48-3831
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude. Kovacs, A., et al, [1993,eng] 48-1004
Forecasting ice conditions on non-arctic seas of the Commonwealth of Independent States. Krasiuk, V.S., et al, [1992,rus] 48-1954
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Formation of extremely severe ice conditions in the Labrador Sea in winter 1990/1991. Mironov, E.U., et al, [1992,eng] 48-734
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
General sea ice conditions. Vinje, T., et al, [1992,eng] 48-2903
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Ice age paleotopography. Peltier, W.R., [1994,eng] 48-5106
Ice algae and kisel algae distribution. Hellum, C., [1992,eng] 48-2907
Ice algae primary productivity in the high arctic. Smith, R.E.H., et al, [1993,eng] 48-85
Ice cover of the Arctic basin. Romanov, I.P., [1992,rus] 48-4148
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
Ice forces: current practices. Croasdale, K.R., [1989,eng] 48-4137
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] 48-2690
Ice ride-up and pile-up on shores and coastal structures. Christensen, F.T., [1994,eng] 48-4980
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Ice thickness variability of the McMurdo Sound landfast ice runway. Morris, K., et al, [1992,eng] 48-3768
Ice-core studies in the western Weddell Sea. Gow, A.J., et al, [1992,eng] 48-3771
Ice-covered regions in international law. Joyner, C.C., [1991,eng] 48-998
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Improving the information content of ice manuals. Kazanskii, M.M., et al, [1992,rus] 48-2743
Influence of light on metabolism of ice algae in Resolute. Gosselin, M., et al, [1993,eng] 48-1082
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Initial conditions of ice-structure interaction problem. Bekker, A.T., et al, [1994,eng] 48-3026
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] 48-3201
Investigation of sea ice interaction with SHF-electromagnetic field. Gavrilo, V.P., et al, [1993,eng] 48-1903
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] 48-2689
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] 48-2688
Last deglaciation event in the eastern central Arctic Ocean. Stein, R., et al, [1994,eng] 48-3737
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Life cycle of a calanoid copepod in the Weddell Sea. Kurbjeweit, F., et al, [1993,eng] 48-594
Life in the cracks of antarctic sea ice. Schminke, H.K., et al, [1993,eng] 48-1665
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] 48-2687
Low salinity frazil ice at ice shelf base. Tison, J.L., et al, [1993,eng] 48-48
Low-frequency passive-microwave observations of sea ice in the Weddell Sea. Menashi, J.D., et al, [1993,eng] 48-3004
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Marine ice physics under the Filchner-Ronne Ice Shelf. Oerter, H., et al, [1991,eng] 48-4
Mathematical modeling of sea ice dynamics and circulation of the Arctic Basin. Sukhorukov, V.A., et al, [1992,rus] 48-3723
Measuring the compressive strength of ice. Kovacs, A., [1993,eng] 48-3494
Membrane fatty acid analysis of antarctic bacteria. Rotert, K.R., et al, [1993,eng] 48-3823
Microbial network of the marginal ice zone in the Weddell Sea. Lancelot, C., et al, [1993,eng] 48-2136
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Microbial response to experimental sea ice formation. Grossmann, S., et al, [1993,eng] 48-2412
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] 48-1540
Model for remote sensing of anisotropic layers. Nghiem, S.V., et al, [1993,eng] 48-2408
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Modelling wave/ice interactions in the marginal ice zone. Rottier, P., [1990,eng] 48-775
Nonlinear dynamic response of a simple ice-structure interaction model. Karr, D.G., et al, [1993,eng] 48-2686
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Notes on the biology of sea ice in the Arctic and Antarctic. Spindler, M., [1994,eng] 48-5152
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al, [1992,rus] 48-1912
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] 48-4843
Nutrient enrichment of high arctic ice algae from Resolute. Smith, R.E.H., et al, [1993,eng] 48-1083
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Oceanographic survey near a glacier. Kutin, D.G., et al, [1992,eng] 48-2910
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
On the competitive balance of macroalgae at Potter Cove (King George Island, South Shetlands). Klöser, H., et al, [1994,eng] 48-3042
Operation Deep Freeze 92/93 end of season report. U.S. Naval Support Force Antarctica, [1993,eng] 48-1663
Optical properties for sea ice measured during LEADEX '92. Tanis, F.J., et al, [1993,eng] 48-1703
Overview and perspectives of the study on ice algae and its associated ecosystem. Hoshiai, T., [1993,eng] 48-1071
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] 48-4816
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Physical properties and structure of a single ice floe. Danielson, A., et al, [1992,eng] 48-3769
Physiology of High Arctic sea ice algae. Smith, R.E.H., et al, [1990,eng] 48-3242
Phytoplankton in the Antarctic Marginal Ice Zone. Kang, S.H., [1992,eng] 48-1024
Phytoplankton variations in Weddell Sea ice formation. Gleitz, M., et al, [1993,eng] 48-2411
Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647
Polarimetric radar measurements of artificial sea ice during CRRELEX '88. Onstott, R.G., [1990,eng] 48-4747
Polarimetric radar scattering measurements of laboratory grown sea ice. Onstott, R.G., [1993,eng] 48-1699

Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, 1994, volume 4. International Conference on Offshore Mechanics and Arctic Engineering, 13th, Houston, Texas, Feb. 27-Mar. 3, 1994, [1994,eng] 48-3012
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Production of organic matter in antarctic sea shelf. Dhargalkar, V.K., et al, [1992,eng] 48-1525
Properties of marine ice, a new ice type. Moore, J.C., et al, [1994,eng] 48-3303
R/V *Polarstern* Cruise, ANTARKTIS X/6-8, 1992/93. Bathmann, U., ed, [1994,eng] 48-3926
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] 48-3774
Radar backscatter over antarctic sea ice. Lytle, V.I., [1993,eng] 48-3301
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Radiation and eddy flux experiment 1993 *(REFLEX II)*. Kottmeier, C., et al, [1994,eng] 48-3928
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Release of an ice-active substance by antarctic sea ice diatoms. Raymond, J.A., et al, [1994,eng] 48-3043
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293
Report on the *Professor Multanovsky* cruise, 17 July-27 July 1991. Volkov, V.A., [1992,eng] 48-2908
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Responses to temperature of an Arctic psychrophylic ice diatom. Smith, R.E.H., et al, [1994,eng] 48-3791
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
SAR backscatter from sea ice. Joughin, I.R., et al, [1993,eng] 48-4156
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] 48-1425
Scale of the last glaciation in the arctic basin. Pavlidis, IU.A., [1992,eng] 48-2605
Sea ice and open-water plankton carbon isotopic composition. Dunbar, R.B., et al, [1992,eng] 48-3767
Sea ice biological studies in the Arctic. Gradinger, R., [1993,eng] 48-3319
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Sea Ice Mechanics Workshop, Airlie, VA, Nov. 12-14, 1990. Air-ice-ocean interaction. Curtin, T.B., ed, [1991,eng] 48-1480
Sea ice profile laser measurements, Bay of Bothnia. Salmela, O., [1993,eng] 48-2007
Sea ice scenes from polarimetric SAR data. Lee, J.S., et al, [1992,eng] 48-3241
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] 48-2834
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Seabirds and fur seals near the Antarctic Peninsula in winter 1986. Whitehouse, M.J., et al, [1994,eng] 48-5153
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea. Wassmann, P., et al, [1993,eng] 48-595
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] 48-541
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Ship waves in a continuously stratified basin with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] 48-4290
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Size effect in the flexural strength of ice. Williams, F.M., et al, [1994,eng] 48-3015
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al, [1992,eng] 48-3773
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea. Anokhin, V.N., et al, [1992,rus] 48-2742
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Spectral extinction coefficient of sea ice. Kishigami, H., et al, [1993,jpn] 48-1078
Spectral light environment in sea ice. Kishino, M., [1993,eng] 48-1077
Spring biochemical composition of sea ice diatoms in McMurdo Sound. Nichols, D.S., et al, [1993,eng] 48-46
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] 48-2502
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Turbulent mixing under drifting pack ice in the Weddell Sea. McPhee, M.G., et al, [1994,eng] 48-2554
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389
Under-ice movements and the sensory basis of hole finding by ringed and Weddell seals. Wartzok, D., et al, [1992,eng] 48-542
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] 48-2392
Vertical distribution of bacteria in Arctic sea ice. Gosink, J.J., et al, [1993,eng] 48-2314
Vortex flows near the sea ice edge. Marchenko, A.V., et al, [1993,eng] 48-4216
Water masses and circulation in the Eurasian Basin. Anderson, L.G., et al, [1994,eng] 48-4222
Weddell Sea algal communities. Fahl, K., et al, [1993,eng] 48-597
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] 48-1822
Workshop on study of polar atmosphere and cryosphere, report. Kanzawa, H., [1993,jpn] 48-1185
Younger Dryas experiments. Wright, D.G., et al, [1993,eng] 48-4198

Sea ice distribution

1992 Arctic Leads Experiment: an overview of the meteorology. Wolfe, D.E., et al, [1993,eng] 48-2126
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 5th, Mombetsu, Hokkaido, Japan, Feb. 4-6, 1990, 1990,eng] 48-4664
Abstracts. International Symposium on Okhotsk Sea and Sea Ice, 8th, Mombetsu, Hokkaido, Japan, Feb. 1-5, 1993, [1993,eng] 48-1026
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Airborne electromagnetic mapping of ice thickness in the Baltic Sea. Hautaniemi, H., et al, [1994,eng] 48-5592
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Altimeter Sea Ice Workshop, Feb. 15-16, 1990. Hawkins, J.D., ed, [1990,eng] 48-1481
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Antarctic sea ice variations. Xie, S.M., et al, [1993,chi] 48-2029
Antarctic sea-ice relationships with indices of the atmospheric circulation of the Southern Hemisphere. Carleton, A.M., [1989,eng] 48-1660
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] 48-3697
Application of MOS-1 MSR data for sea ice study. Cho, K., et al, [1990,jpn] 48-4683
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] 48-1291
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic Ocean and its geologic record: research history and perspectives. Thiede, J., et al, [1994,eng] 48-5632
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Arctic sciences program research summaries, 1992. Fondrk, J., ed, et al, [1993,eng] 48-1463
Arctic sea ice anomalies and the interdecadal climate cycle. Mysak, L.A., et al, [1992,eng] 48-299
Arctic sea ice microwave signature and geophysical processes study. Onstott, R.G., et al, [1993,eng] 48-1693
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Arctic sea ice-climate system: observations and modeling. Barry, R.G., et al, [1993,eng] 48-2507
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] 48-976
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Bering Strait current variations from satellite data. Irwin, T.J., et al, [1993,eng] 48-1324
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Characteristics of sea ice observed by ships in the Okhotsk Sea and the Bering Sea. Sato, K., [1988,jpn] 48-1838
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820
Climate change impacts on northern offshore petroleum operations. Croasdale, K.R., [1992,eng] 48-2039
Climatic change in Canada. 5. Critical periods in the Quaternary climatic history of northern North America. Harington, C.R., ed, [1985,eng] 48-2720
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] 48-3674
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] 48-1353
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] 48-2354
Comparison of ice drift motion from modeled and buoy data. Lundeen, G.N., [1990,eng] 48-4730
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] 48-1347
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] 48-1805
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Coupled ice-ocean model of the Beaufort and Chukchi Seas. Hedstrom, K.S., et al, [1993,eng] 48-791
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Coupled ocean and sea-ice models: review and perspectives. Van Ypersele, J.P., [1989,eng] 48-222
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
Dangers of multiyear averaging in analyses of long-term climate trends. Parkinson, C.L., [1989,eng] 48-2362
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] 48-1689
Dynamic local thresholding technique for sea ice classification. Haverkamp, D., et al, [1993,eng] 48-1694
Effect of the equatorial Pacific on Okhotsk Sea ice. Tachibana, Y., et al, [1990,jpn] 48-4672
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] 48-1686
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al, [1993,eng] 48-176
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone. Truskov, P.A., et al, [1993,eng] 48-1048
Evaluation of accuracy for numerical sea ice forecast in the seas around Hokkaido. Sato, K., et al, [1990,jpn] 48-4681
Evidence from Hudson Bay region of severe cold in the summer of 1816. Catchpole, A.J.W., [1985,eng] 48-2722
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] 48-1056
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] 48-1691
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688

Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] **48-1692**

Formation of extremely severe ice conditions in the Labrador Sea in winter 1990/1991. Mironov, E.U., et al, [1992,eng] **48-734**

Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] **48-3466**

General sea ice conditions. Vinje, T., et al, [1992,eng] **48-2903**

Geophysical field area fraction estimation. Key, J.R., [1993,eng] **48-2161**

Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] **48-3451**

Glacial start and global warming: what to watch. Kukla, G., [1993,eng] **48-1797**

Global climate models and Antarctica. Connolley, W.M., [1992,eng] **48-783**

Global climates since the last glacial maximum. Wright, H.E., Jr., ed, [1993,eng] **48-2974**

Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] **48-2035**

Greenland ... a hydrography—winter 1988-89. Schott, F., et al, [1993,eng] **48-224**

Greenland Sea polynya, pt.1. Schneider, W., et al, [1994,eng] **48-2914**

Greenland Sea Project. Arctic Ocean Sciences Board, [1987,eng] **48-1781**

Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] **48-980**

Helicopter ice field surveys. Erlingsson, B., et al, [1992,eng] **48-2902**

High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] **48-5094**

Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] **48-3339**

Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] **48-4752**

Ice conditions on Alaska's Beaufort Sea Coast: extending the observations. Metzner, R., et al, [1979,eng] **48-4142**

Ice conditions. Dmitriev, N.E., et al, [1992,eng] **48-2909**

Ice cover of the Arctic basin. Romanov, I.P., [1992,rus] **48-4148**

Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] **48-225**

Ice dynamics at Ice Station Weddell 1: I. Part I. Ackley, S.F., et al, [1992,eng] **48-3778**

Ice forecasting in the southern Okhotsk Sea. Toyota, T., et al, [1993,jpn] **48-1069**

Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] **48-2813**

Ice observation on a platform in Bohai Sea. Yue, Q.J., et al, [1994,eng] **48-5557**

Ice observations in the western Weddell Sea. Darling, M.N., et al, [1992,eng] **48-3772**

Ice processes. Augustein, E., et al, [1991,eng] **48-4867**

Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] **48-1698**

Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] **48-131**

Ice transference of Bering Strait. IAkunin, L.P., et al, [1993,eng] **48-4348**

Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] **48-3468**

Iceberg data from annual expeditions in the Barents Sea. Spring, W., et al, [1993,eng] **48-130**

Iceberg severity off the Canadian east coast (an analysis of the 1991 iceberg season). Salloum, J.E., [1993,eng] **48-5380**

Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] **48-1064**

Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] **48-3483**

IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] **48-1678**

Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] **48-1276**

Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] **48-978**

Improving of microwave remote sensing of sea ice. Shi, Z.F., et al, [1993,eng] **48-1715**

Influence of the hydrologic cycle on the extent of sea ice with climatic implications. Dean, K.G., et al, [1993,eng] **48-319**

Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] **48-4209**

Intercomparison of ERS-1 SAR, airborne SLAR and electromagnetic ice-thickness data. Ikeda, M., et al, [1994,eng] **48-3456**

International Arctic Buoy Project.[1993,eng] **48-3320**

International Arctic Polynya Program. Legendre, L., [1990,eng] **48-4666**

International Ice Patrol '94. Haines, R., [1994,eng] **48-2760**

Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] **48-5372**

Late Pleistocene variations in antarctic sea ice. 1. Effect of orbital insolation changes. Crowley, T.J., et al, [1988,eng] **48-1657**

Late Pleistocene variations in antarctic sea ice. 2. Effect of interhemispheric deep-ocean heat exchange. Crowley, T.J., et al, [1988,eng] **48-1658**

Lead distribution in the sea ice area in the Sea of Okhotsk and the Arctic. Enomoto, H., et al, [1990,eng] **48-4679**

Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] **48-2135**

Level ice thickness and multiyear drift in the Arctic. Mironov, E.U., [1994,eng] **48-5603**

Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] **48-2723**

Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] **48-1245**

Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] **48-1053**

Longterm changes in ice conditions at the Polish coast of the Baltic Sea. Sztobryn, M., [1994,eng] **48-5571**

Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] **48-2427**

Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92. Shuchman, R.A., et al, [1993,eng] **48-1695**

Mathematical modeling of dynamic-thermodynamic behaviour of sea ice. Leppäranta, M., [1990,eng] **48-4687**

Measuring sea-ice concentration and floe-size distribution by image processing. Muramoto, K., et al, [1993,eng] **48-2824**

Method for forecasting ice conditions on the Northern Route. Siniurin, IU.N., et al, [1993,eng] **48-5298**

Methods to map ice conditions, to measure ice properties and to quantify ice features. Nortala-Hoikkanen, A., et al, [1993,eng] **48-177**

Microwave and optical measurements of sea ice. Goeckel, D.L., et al, [1993,eng] **48-1089**

Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] **48-4992**

Minimum and maximum drift ice extent in the southern ocean in 1991. Romanov, A.A., [1992,eng] **48-732**

MIZEX East '87—Fram Strait and Greenland Sea. MIZEX '87 Group, [1989,eng] **48-1815**

Modeling of topographic effects on antarctic sea ice using multivariate adaptive regression splines. De Veaux, R.D., et al, [1993,eng] **48-2244**

Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] **48-1788**

Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] **48-3450**

Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] **48-5368**

Monthly mean sea ice data from ice prediction models. Posey, P.G., et al, [1991,eng] **48-4731**

MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] **48-1058**

Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] **48-3452**

Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] **48-4472**

Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] **48-1055**

Nested grid sea ice modelling. Christensen, F.T., et al, [1993,eng] **48-165**

Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] **48-4950**

Northern Sea Route Project: pilot studies report. Östreng, W., ed, et al, [1991,eng] **48-1779**

Numerical simulations of mesoscale rheology of broken ice fields. Frederking, R.M.W., et al, [1993,eng] **48-166**

Observation of drift ice and salt field in the Liaodong Bay, China, by MOS-1/MESSR. Ogata, S., [1998,eng] **48-4870**

Observations of sea ice ridging in the Weddell Sea. Granberg, H.B., et al, [1993,eng] **48-1057**

Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] **48-3458**

Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] **48-3453**

On the momentum forcing of a large-scale sea-ice model. Stössel, A., et al, [1993,eng] **48-2807**

Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] **48-3467**

Operational sea ice forecasting systems at the Fleet Numerical Oceanography Center. Preller, R.H., et al, [1991,eng] **48-4732**

Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] **48-3471**

Pack ice movement simulation using a distributed mass/discrete floe model. Yamaguchi, H., et al, [1993,eng] **48-171**

Pack ice off Hokkaido, Jan.-Apr. 1992. Ishikawa, M., et al, [1992,jpn] **48-3157**

Paleoceanography of Greenland, Iceland and Norwegian seas. Koç, N., et al, [1993,eng] **48-2879**

Particle-in-cell sea-ice model. Flato, G.M., [1993,eng] **48-2353**

Particulars of weather and ice conditions in the Arctic in 1991. Kuraiov, V.K., et al, [1992,eng] **48-731**

Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] **48-4948**

Photogrammetric analysis of icebergs in the Barents Sea. Lövås, S.M., et al, [1993,eng] **48-128**

Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] **48-3819**

Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] **48-1510**

Phytoplankton production and biomass in South Atlantic Ocean frontal zones. Laubscher, R.K., et al, [1993,eng] **48-918**

Possibility of one-month forecast of sea ice. Kano, Y., et al, [1993,jpn] **48-1068**

Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] **48-2499**

Primary production in sea ice covered waters. Alexander, V., [1990,eng] **48-4665**

Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] **48-3433**

Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] **48-1292**

Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] **48-127**

Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] **48-4207**

Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] **48-1227**

Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] **48-1700**

Radar backscatter measurements from simulated sea ice during CRRELEX '90. Beaven, S.G., et al, [1993,eng] **48-2645**

Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] **48-3461**

Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] **48-1314**

Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] **48-4412**

Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] **48-3474**

Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] **48-620**

Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] **48-1702**

Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] **48-1728**

Remotely sensed sea ice distribution and temperature in arctic seas. Massom, R., et al, [1994,eng] **48-3304**

Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] **48-1326**

Results of the Ice Data Acquisition Program (IDAP) in the Barents Sea, 1988-1992. Spring, W., et al, [1993,eng] **48-129**

SAR application calibration requirements. Brown, R.J., et al, [1993,eng] **48-1511**

Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] **48-1327**

Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] **48-126**

Satellite observations of ice/ocean eddies in the Okhotsk Sea. Wakatsuchi, M., et al, [1990,eng] **48-4674**

Satellite observations of oceans and ice. Jezek, K.C., et al, [1988,eng] **48-1467**

Satellite time series monitoring of Okhotsk Sea ice in 1992. Ishida, K., et al, [1993,jpn] **48-1067**

Scatterometer measurements of arctic sea ice at C-band. Grandell, J., et al, [1993,eng] **48-1701**

Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] **48-3465**

Sea ice altimeter processing scheme at the EODC. Laxon, S.W., [1994,eng] **48-4036**

Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] **48-2142**

Sea ice and climatic change in the Canadian Arctic since 1800. Dunbar, M., [1985,eng] **48-2721**

Sea ice information from satellite images (part 2). Aoshima, M., [1993,jpn] **48-1070**

Sea ice lead dynamics from ERS-1 SAR. Stern, H.L., et al, [1994,eng] **48-3448**

Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] **48-3449**

Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] **48-5594**

Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] **48-3455**

Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery. Emery, W., et al, [1993,eng] **48-3281**

Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] **48-1943**

Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] **48-1323**

Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] **48-314**

Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] **48-3462**

Sea-ice features interpreted in a combination of multi sensor data. Ono, N., [1990,jpn] **48-4878**

Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] **48-3727**

Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] **48-1356**

Secrecy under the ice frustrates global warming studies.[1990,eng] **48-1503**

Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] **48-5633**

Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] **48-3460**

Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] **48-4034**

Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] **48-2977**

Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] **48-2347**

SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Some problems of sea ice and climate modelling. Untersteiner, N., [1990,eng] 48-3128
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] 48-1062
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670
Study of the anomalous sea ice distribution in the seas around Hokkaido in 1989. Sato, K., et al, [1990,jpn] 48-4680
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Surface temperature and salinity of the Okhotsk Sea. IAkunin, L.P., [1993,eng] 48-1088
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Synoptic observation of sea ice. Hattori, T., et al, [1990,jpn] 48-4877
Synthetic aperture radar imagery for operational ice analysis. Fetterer, F., et al, [1991,eng] 48-4737
Synthetic dense media fabrication with application to sea ice. Porco, R.L., et al, [1993,eng] 48-1696
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] 48-1790
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Thermal structure of the Cosmonaut Polynya region in the Antarctic. Takizawa, T., et al, [1993,eng] 48-1059
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] 48-3447
United States Interagency Arctic Buoy Program. Benner, D.A., [1993,eng] 48-2125
Use of numerical methods in ice conditions examination. Pokrashenko, S.A., [1993,eng] 48-1090
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] 48-4330
Validation of ERS-1 SAR for arctic ice properties from ARCTEX-91. Askne, J., et al, [1994,eng] 48-3446
Variability in ice cover along Canada's east coast for 1962-1992. Prinsenberg, S.J., et al, [1994,eng] 48-5574
Variability in the Okhotsk Sea ice. Nishio, F., et al, [1993,eng] 48-1066
Weddell Sea exploration from Ice Station. Gordon, A.L., et al, [1993,eng] 48-2079
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
Year-to-year variability of sea ice extent in the arctic and subarctic seas. Ono, N., [1993,eng] 48-1063
Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1687

Sea level
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Bellingshausen continental shelf and glacial history of the Antarctic Peninsula. Pope, P.G., [1991,eng] 48-4245
Contribution of Antarctic Peninsula ice to sea level rise. Morris, E.M., ed, [1992,eng] 48-779
Controls on changes in the West Antarctic ice sheet. Whillans, I.M., et al, [1993,eng] 48-4180
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Effect of spatially non-uniform water loads on prediction of sea-level change. Johnston, P., [1993,eng] 48-232
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Environmental events on King George Island since the last glaciation. Xie, Y.Y., et al, [1992,eng] 48-80
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Glacial history of Antarctica: results from Leg 119. Barron, J.A., et al, [1991,eng] 48-3632
Glacial rebound and sea level change. Lambeck, K., [1993,eng] 48-742
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Greenland and antarctic ice sheet melting effects on sea level. Oerlemans, J., [1993,eng] 48-1564
Holocene marine coastal evolution of the United States. Fairbridge, R.W., [1992,eng] 48-1924
Ice age paleotopography. Peltier, W.R., [1994,eng] 48-5106
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] 48-4186
Ice shelves on the Antarctic Peninsula: changing climate and sea level. Vaughan, D.G., [1992,eng] 48-785
Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Late Quaternary record of sea-level changes in the Antarctic. Grobe, H., et al, [1993,eng] 48-1007
Marine sediment record of Pleistocene glacier/ocean linkage. Fairbanks, R.G., [1989,eng] 48-1821
Mid Holocene transgression on Alexandra Land, Franz Josef Land, Russia. Näslund, J.O., et al, [1994,eng] 48-4828
Middle Miocene climatic transition. Flower, B.P., et al, [1994,eng] 48-5412
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] 48-1383
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] 48-2684
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7. Watanabe, O., ed, NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992, [1993,eng] 48-1862
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed, et al, [1992,eng] 48-1923
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
Topographic controls on glacial lake development. Batterson, M.J., et al, [1993,eng] 48-5012
World sea level and the present mass balance of the antarctic ice sheet. Paterson, W.S.B., [1993,eng] 48-4185

Sea spray
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Field investigation of spray icing on offshore experimental structure. Hirasawa, M., et al, [1990,jpn] 48-4668
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] 48-4338
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Mobile platform stability: MOPS subproject 02—icing (MOPS report No.7). Horjen, I., [1993,eng] 48-3066
Prediction of bow spray frequency for a naval combatant. Lebiedzinski, K., et al, [1993,eng] 48-169
Superstructure spray and ice accretion on a large U.S. Coast Guard cutter. Ryerson, C.C., [1993,eng] 48-855
Three-dimensional time-dependent ship icing model. Zakrzewski, W.P., et al, [1993,eng] 48-172

Sea states
Climatic study of the Greenland-Iceland-United Kingdom Gap. Brower, W.A., Jr., ed, [1992,eng] 48-3674
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109

Sea transportation
See [also]: Marine transportation

Sea water
^{228}RA as a tracer for shelf water in the Arctic Ocean. Van der Loeff, M.M.R., et al, [1993,eng] 48-4544
Ammonium regeneration in the Scotia-Weddell Confluence area during Spring 1988. Goeyens, L., et al, [1991,eng] 48-3736
Annual dynamics of nutrient transition through the western boundary of the Barents Sea. Volkovskaia, L.E., et al, [1991,rus] 48-2525
Anthropogenic lead in antarctic sea water. Flegal, A.R., et al, [1993,eng] 48-332
Atmospheric carbon dioxide and the ocean. Siegenthaler, U., et al, [1993,eng] 48-334
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] 48-2008
Circulation and water mass formation in the Weddell Sea. Fahrbach, E., [1993,ger] 48-767
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Differences in the ventilation of the deep arctic basins in relation to the water-column distributions of ^{230}Th and ^{231}PA. Scholten, J.C., et al, [1993,eng] 48-4545
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] 48-1075
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] 48-5313
Gas chromatography of organic compounds in arctic seawater. Schall, C., et al, [1993,eng] 48-2049
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] 48-3061
Halogenated hydrocarbons in polar macroalgae. Laturnus, F., [1993,ger] 48-2243
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] 48-2904
Ice Station Weddell (ISW) tracer-oceanography program. Schlosser, P., et al, [1992,eng] 48-3781
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] 48-2897
Microbial production in the Weddell Sea pack ice. Sullivan, C.W., et al, [1992,eng] 48-3779
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Modeling of UV penetration through the atmosphere and ocean. Stammes, K., [1993,eng] 48-3733
Optical measurements. Hökedal, J., et al, [1992,eng] 48-2906
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Physical stability of waters and spring blooming of phytoplankton in the coastal area of East Murman. Il'in, G.V., [1991,rus] 48-2526
Possible effects of ozone depletion on the global carbon cycle. Peng, T.H., [1992,eng] 48-1885
Productive-destructive processes in the pelagic zone of the coastal area of the Barents Sea; collected scientific papers. Matishov, G.G., ed, [1991,rus] 48-2524
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] 48-4546
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] 48-1943
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Seasonal and annual dynamics of particulate carbon flux in the Barents Sea. Wassmann, P., et al, [1993,eng] 48-595
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] 48-1603
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] 48-3058
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539
Turbulent mixing under drifting pack ice in the Weddell Sea. McPhee, M.G., et al, [1994,eng] 48-2554

Sea water brines
See [also]: Brines

Sea water composition
See [also]: Chemical composition

Sea water freezing
Correction to paper by S.G. Warren et al. Warren, S.G., et al, [1993,eng] 48-1150
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Long-term variations in ice concentration off Hokkaido. Hirata, T., et al, [1993,jpn] 48-1053
Mixed layer dynamics in the onset of freezing. Claes, D.C., [1990,eng] 48-3668
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453
On the boundary layer changes during the sea ice formation. Kodama, Y., et al, [1993,eng] 48-1074
Radar backscatter measurements from arctic sea ice during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1700
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459
Temperature and mass balance of the Filchner and Ronne Ice Shelves. Grosfeld, K., [1993,ger] 48-1113

Sea waves
See [also]: Ocean waves

Sealing
Durable surface coatings for rubber articles e.g. wiper blades and seal packings. Hirokawa, Y., et al, [1993,eng] 48-5523
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] 48-5067
Radial shaft sealing systems in arctic conditions. Välttilä, J., [1994,eng] 48-3983
Radial shaft seals in arctic conditions. Välttilä, J., [1994,eng] 48-3101

Seasonal freeze thaw
Arctic and subarctic construction foundations for structures.[1983,eng] 48-762
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Cryogenic processes and phenomena in Mongolia. Lombo-rinchen, R., [1993,eng] 48-426
Degradation of cryogenic strata in large water storage areas. Olovin, B.A., et al, [1993,eng] 48-529
Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840

Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil. Badmaeva, S.E., et al, [1992,rus] **48-4793**
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,chi] **48-4491**
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,eng] **48-5264**
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] **48-371**
Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] **48-693**
How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] **48-5304**
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] **48-2297**
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] **48-1153**
On the minimum depth of bridge and culvert foundations in seasonal frost regions. Dai, H.M., et al, [1993,eng] **48-885**
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] **48-491**
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] **48-4160**
Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] **48-5241**
Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] **48-2295**
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] **48-5260**
Shallow cover design and construction technology of building foundation in Daqing region. Jiang, H.J., et al, [1993,chi] **48-4494**
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] **48-970**
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] **48-1149**
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska. Bilello, M.A., et al, [1993,eng] **48-882**
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] **48-2543**
See [also]: Freeze thaw cycles

Seasonal thaw layer
See [also]: Active layer; Thaw depth

Seasonal variations
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia. Schmok, J., [1988,eng] **48-2364**
1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] **48-1514**
1990 temperature and precipitation during Northern Wetlands Study. Mortsch, L.D., [1994,eng] **48-4602**
Air temperature data at Hakuun hut in the Daisetsu Mountains, central Hokkaido, 1987-1989. Sone, T., et al, [1992,jpn] **48-3155**
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] **48-2637**
Alpine atmospheric composition and aerosol sampling techniques. Kasper, A., et al, [1994,eng] **48-5138**
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] **48-961**
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] **48-2341**
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] **48-3556**
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] **48-4699**
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] **48-4014**
Antarctic sea ice variations. Xie, S.M., et al, [1993,chi] **48-2029**
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] **48-4284**
Arctic aerosols in Greenland. Heidam, N.Z., et al, [1993,eng] **48-3916**
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] **48-1344**
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] **48 2891**
Atmospheric toxaphene in the high Arctic. Barrie, L.A., et al, [1993,eng] **48-2461**
Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] **48-4998**
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] **48-1279**
Biogenic sulfur aerosol in the Arctic troposphere: 1. Contributions to total sulfate. Li, S.M., et al, [1993,eng] **48-3642**
Biogenic sulfur aerosol in the Arctic troposphere: 2. Trends and seasonal variations. Li, S.M., et al, [1993,eng] **48-3643**
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] **48-4635**
Characteristics of air temperature variation at Hakuun hut in the Daisetsu Mountains. Nakayama, T., et al, [1992,jpn] **48-3216**
Chemical composition of antarctic aerosols. Savoie, D.L., et al, [1993,eng] **48-42**
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] **48-4993**
Climatology of arctic and antarctic tropospheric ozone. Oltmans, S.J., [1993,eng] **48-3047**
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] **48-1308**
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] **48-4805**
Comparison of conventional and passive microwave sea-ice datasets for Hudson Bay. Etkin, D.A., et al, [1993,eng] **48-2354**
Condensation nucleus size distribution at Mawson, Antarctica: microphysics and chemistry. Gras, J.L., [1993,eng] **48-230**
Condensation nucleus size distribution at Mawson, Antarctica: seasonal cycle. Gras, J.L., [1993,eng] **48-229**
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] **48-1721**
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] **48-3885**
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] **48-3886**
Dynamics of total ozone content in Antarctica. Radionov, V.F., et al, [1993,rus] **48-2485**
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] **48-2019**
Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] **48-430**
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] **48-2848**
Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] **48-3343**
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] **48-2006**
Flow and oceanic structure under fast ice in Lützow-Holm Bay. Ohshima, K.I., et al, [1993,eng] **48-1060**
Flowering phenology in tundra plants. Molau, U., [1993,eng] **48-2423**
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] **48-2737**
Glacier mass balance measurements on Wurtenkees in the Sonnblick region. Böhm, R., [1986,ger] **48-613**
Global and seasonal variations in middle atmosphere CO from UARS/ISAMS. López-Valverde, M.A., et al, [1993,eng] **48-4220**
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] **48-5030**
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] **48-5484**
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] **48-3910**
Ice thickness variability of the McMurdo Sound landfast ice runway. Morris, K., et al, [1992,eng] **48-3768**
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] **48-2208**
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] **48-5369**
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] **48-433**
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] **48-5475**
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] **48-629**
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] **48-4981**
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] **48-202**
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] **48-632**
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] **48-4710**
Measurements of hydrocarbons in polar maritime air masses. Penkett, S.A., [1993,eng] **48-3054**
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] **48-3897**
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] **48-2548**
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] **48-2547**
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] **48-3037**
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] **48-987**
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] **48-988**
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Ornstedt, A., et al, [1994,eng] **48-4413**
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] **48-5443**
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] **48-3150**
Multiyear variation of annual and seasonal totals of precipitation and their relation to air temperature. Sudakov, P.A., et al, [1992,rus] **48-4460**
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] **48-455**
Nitrogen oxide effects on arctic tropospheric ozone trends. Jaffe, D.A., [1993,eng] **48-3052**
North American snow cover variability, 1972-1993. Frei, A., et al, [1993,eng] **48-2926**
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] **48-2023**
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] **48-3145**
On the microphysical state of the Martian seasonal caps. Eluszkiewicz, J., [1993,eng] **48-994**
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] **48-3296**
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] **48-4013**
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] **48-412**
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] **48-3909**
Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] **48-355**
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] **48-939**
Phytoplankton production and biomass in South Atlantic Ocean frontal zones. Laubscher, R.K., et al, [1993,eng] **48-918**
Polar stratospheric cloud climatology from 1978-89. Poole, L.R., et al, [1994,eng] **48-4700**
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] **48-5469**
Polar sunrise studies. Bottenheim, J.W., [1993,eng] **48-3048**
Production of organic matter in antarctic sea shelf. Dhargalkar, V.K., et al, [1992,eng] **48-1525**
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] **48-2100**
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] **48-1328**
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] **48-3888**
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] **48-2846**
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] **48-4708**
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] **48-5506**
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] **48-4018**
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] **48-4811**
Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] **48-1425**
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] **48-3146**
Sea ice and open-water plankton carbon isotopic composition. Dunbar, R.B., et al, [1992,eng] **48-3767**
Sea ice, polynyas and glacier ice and the formation of water masses. Dong, Z.Q., et al, [1993,chi] **48-1943**
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] **48-227**
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] **48-2834**
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] **48-4638**
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] **48-2390**
Seasonal aerosol chemistry at Dye 3, Greenland. Mosher, B.W., et al, [1993,eng] **48-3889**
Seasonal and geographic variations of methanesulfonic acid in the arctic troposphere. Li, S.M., et al, [1993,eng] **48-3914**
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] **48-5044**
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] **48-2116**
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] **48-2291**
Seasonal cycle of carbon dioxide on Mars. James, P.B., et al, [1992,eng] **48-5043**
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] **48-4019**
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] **48-1339**
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] **48-4614**
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] **48-3502**
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] **48-1312**
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] **48-1803**
Snow cover variability in the Great Plains of the United States: 1910-1988. Hughes, M.G., et al, [1993,eng] **48-2925**
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] **48-1151**
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] **48-2602**
Snowy year from coast to coast. Ludlum, D.M., [1994,eng] **48-3324**
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] **48-646**
Sources influencing Greenland ice sheet composition during AGASP. Davidson, C.I., et al, [1993,eng] **48-3887**

Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] 48-5031
Spitsbergen atmospheric aerosols related to arctic air pollution. Heintzenberg, J., et al, [1994,eng] 48-2916
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] 48-5485
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] 48-2588
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] 48-4599
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4373
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052
Surface melting on Antarctic Peninsula ice shelves detected by passive microwave sensors. Ridley, J., [1993,eng] 48-4652
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Temperature extremes. Hickcox, D.H., [1994,eng] 48-3325
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Total ozone global field oscillations. Gruzdev, A.N., et al, [1992,eng] 48-2245
Trends in total ozone over southern African stations between 1979 and 1991. Kalicharran, S., et al, [1993,eng] 48-4390
Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] 48-5444
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890
Winter ice along the German coast between the Ems and Trave rivers—1987/88. Koslowski, G., [1987,ger] 48-1822

Sediment transport

Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] 48-3510
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Boulder clusters in glacial flutes. Rose, J., [1992,eng] 48-2519
Canadian contributions to glacial sedimentology. Shilts, W.W., [1993,eng] 48-344
Climatic implications of isotope profiles of polar ocean sediments. Eisenhauer, A., et al, [1994,eng] 48-4705
Comparison of bed load yield estimates for a glacial meltwater stream. Warburton, J., [1990,eng] 48-1584
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332
Decay of the Barents ice sheet as documented in nordic seas ice-rafted debris. Bischof, J.F., [1994,eng] 48-3804
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
Effect of mining operations on the flow of sediments and on ice shelves. Alekseevskii, N.I., et al, [1992,rus] 48-4802
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] 48-4405
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Flow over dunes in ice-covered channels. Smith, B.T., et al, [1994,eng] 48-5545
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Glacial dispersal of rock debris in central Gaspésie, Quebec, Canada. Charbonneau, R., et al, [1993,eng] 48-2206
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Glacigenic stage of substances' turnover. Ivanov, A.V., [1993,eng] 48-1086
Glaciohydrologic and glaciohydraulic effects on runoff and sediment yield in glacierized basins. Lawson, D.E., [1993,eng] 48-2538
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] 48-932
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Ice-rafted diamictons in East Greenland fiords. Dowdeswell, J.A., et al, [1994,eng] 48-3814
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] 48-1543
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Mineralogy of Arctic Ocean surface sediments. Stein, R., et al, [1994,eng] 48-5637
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] 48-300
Numerical analysis of flows in channels with sand dunes and ice covers. Yoon, J.Y., [1994,eng] 48-3548
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
Phanerozoic polar climates from Cretaceous ice-rafted sediments. Frakes, L.A., et al, [1988,eng] 48-1506
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528
Reactive transport of suspended particles: mechanisms and modeling. Mercier, R.S., [1985,eng] 48-4895
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Snow avalanche impact landforms in southern Norway. Matthews, J.A., et al, [1994,eng] 48-4369
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] 48-4371
Snow-avalanche impact pools in the Canadian Rocky Mountains. Smith, D.J., et al, [1994,eng] 48-4370
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Suspended sediment load and sources in alpine glacier basins. Gurnell, A.M., et al, [1990,eng] 48-1592
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Suspended sediment transport in glacier meltwaters. Collins, D.N., [1990,eng] 48-1590
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] 48-4162
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105

Sedimentation

Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] 48-3510
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] 48-2541
Glaciomarine environments in Canada: an overview. Syvitski, J.P.M., [1993,eng] 48-345
Hydrocarbon and mercury sediments in isolated Canadian lakes. Lockhart, W.L., et al, [1993,eng] 48-5010
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] 48-3491
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Sedimentation dynamics within antarctic fjords. Domack, E.W., et al, [1993,eng] 48-1826
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Soil formation and cryogenesis on the Russian plain during the last 125,000 years. Velichko, A.A., et al, [1993,eng] 48-2285
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Supraglacial eskers in Antarctica. Fitzsimons, S.J., [1991,eng] 48-2334
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Terrigenous sedimentation processes in seas and oceans. Lisitsyn, A.P., [1991,rus] 48-303
Trace metal accumulation in arctic sediment cores. Hermanson, M.H., [1993,eng] 48-5009
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471

Sediments

Adsorption of long-lived radionuclides on sediment from the Kara Sea. Fuhrmann, M., et al, [1993,eng] 48-4564
Carboniferous calcretes in the Canadian Arctic. Theriault, P., et al, [1993,eng] 48-1937
Coal distribution on Ellesmere I., Canada. Kalkreuth, W.D., et al, [1993,eng] 48-2415
Contribution of fine-particle magnetism to reading the global paleoclimate record. Banerjee, S.K., [1994,eng] 48-4568
Correlations between climate records from North Atlantic sediments and Greenland ice. Bond, G., et al, [1993,eng] 48-335
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Environmental radioactivity in the Arctic and Antarctic; proceedings. International Conference on Environmental Radioactivity in the Arctic and Antarctic, Kirkenes, Norway, Aug. 23-27, 1993, [1993,eng] 48-4510
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Geological Survey of Canada radiocarbon dates XXIX. McNeely, R., et al, [1991,eng] 48-3935
Ice rafting dynamics on the St. Lawrence estuary. Dionne, J.C., [1993,eng] 48-932
Italian Antarctic research program: environmental radioactivity survey around Terra Nova Bay (1987-1991). Tubertini, O., et al, [1993,eng] 48-4534
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] 48-458
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
Mineral formation in permafrost sedimentary rocks. Siegert, C., [1993,eng] 48-456
Moisture for northern ice sheet growth. Hebbeln, D., et al, [1994,eng] 48-5123
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
Origin of dislocations in frozen sediments of the Yamal Peninsula. Velikotskii, M.A., [1992,rus] 48-1394
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] 48-4211
Sediment transport by Arctic sea ice: the recent load of lithogenic and biogenic material. Wollenburg, I., [1993,ger] 48-541
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
Sediments in arctic sea ice: implications for entrainment, transport and release. Nürnberg, D., et al, [1994,eng] 48-5633
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] 48-2665
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska. Racine, C.H., et al, [1993,eng] 48-3792

See [also]: Alluvium; Avalanche deposits; Bottom sediment; Glacial deposits; Lacustrine deposits; Marine deposits; Moraines; Outwash; Quaternary deposits; Suspended sediments

Seepage
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] 48-296
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-419
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Mathematical modeling of the dynamics of permafrost thickness given a filtering layer. Kozlov, A.N., et al, [1992,rus] 48-1390
Mechanisms of layer structures growing during ground freezing. Gorelik, I.A., et al, [1993,eng] 48-520
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Numerical investigation of infiltration into frozen soil. Tao, Y.X., et al, [1993,eng] 48-888
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Permafrost hydrology surrounding a Spitsbergen fiord. Bartoszewski, S.A., et al, [1993,eng] 48-355
Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskiĭ, V.D., et al, [1994,eng] 48-2805
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Snowmelt in medium-high mountains and recharging of underlying karst. Chauve, P., et al, [1990,fre] 48-1574
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] 48-2950
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
See [also]: Permeability

Seismic reflection
Indications of methane-induced pockmarks in Fram Strait sediments. Vogt, P.R., et al, [1994,eng] 48-3316
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Scoresby Sund, East Greenland: structure and distribution of sedimentary rocks. Uenzelmann-Neben, G., [1993,eng] 48-4266
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445

Seismic refraction
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129

Seismic surveys
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] 48-2643
Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] 48-354
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glacier-generated ground motions at Bomi, southeastern Tibet. Akamatsu, J., et al, [1993,eng] 48-2754
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] 48-4246
Late Wisconsinan deglaciation of Emerald Basin, Scotian Shelf. Gipp, M.R., [1994,eng] 48-5141
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] 48-3571
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] 48-473

Seismic velocity
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] 48-2866
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] 48-3223
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] 48-473
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465

Seismology
Earthquake Alaska—are we prepared. Combellick, R.A., ed, et al, [1994,eng] 48-5035
Glacier-generated ground motions at Bomi, southeastern Tibet. Akamatsu, J., et al, [1993,eng] 48-2754
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
See [also]: Earthquakes

Sensor mapping
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] 48-1353
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355
Development of an airborne millimeter-wave FM-CW radar for mapping river ice. Yankielun, N.E., et al, [1993,eng] 48-2816
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] 48-81
Mapping sea ice leads with a coupled numeric/symbolic system. Key, J., et al, [1990,eng] 48-2427
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Radiometry of arctic and antarctic sea ice, 1978-87. Gloersen, P., et al, [1993,eng] 48-1314
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298
Satellite spectrometry of global ozone variations. Herman J.R., et al, [1994,eng] 48-3146
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] 48-1312
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] 48-5136
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] 48-2363
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] 48-1330

Sensors
Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Anti-icing valve. Norris, R.M., et al, [1989,eng] 48-4363
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] 48-380
ERS-1 microwave radiometer. Eymard, L., et al, [1994,eng] 48-4035
Fence-mounted intrusion detection systems. Peck, L., [1993,eng] 48-1093
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] 48-2843
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Impact of different backgrounds on thermal infrared IDS performance. Lacombe, J., [1993,eng] 48-1094
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.2. Tsang, G., [1990,eng] 48-4007
Laboratory investigation of frazil evolution, flocculation and the formation of anchor ice. Progress report no.3 (phase 1). Tsang, G., et al, [1992,eng] 48-4010
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
New sensor can reduce highway deicer use.[1994,eng] 48-4255
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992. [1993,eng] 48-2817
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] 48-3010
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Thermal variation in vegetated or snow-covered background scenes and its effect on passive infrared systems. Peck, L., [1993,eng] 48-2535
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Settlement (structural)
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Foundation collapse in permafrost at Thule Air Base, 1953-1993. Hansen, E., et al, [1994,eng] 48-3975
Influence of frost heave on pile stability. Liu, H.X., [1993,eng] 48-424
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] 48-534
Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskiĭ, V.D., et al, [1994,eng] 48-2805
Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] 48-467
Snowdrifts and the differential settlement of buildings (1). Yamanashi, M., et al, [1993,jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2). Hanuki, T., et al, [1993,jpn] 48-2001
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463
Time dependent displacement of piles in saline permafrost. Biggar, K.W., et al, [1993,eng] 48-357
Towards rational deformation limit states for buried pipelines. Zhou, Z.L., et al, [1993,eng] 48-4313
See [also]: Frozen ground settling

Sewage disposal
Borehole drilling for sewage disposal at Asuka Station, East Antarctica. Ishizawa, K., et al, [1994,eng] 48-5347
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska. Munter, J.A., [1994,eng] 48-5101
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] 48-3384
Operation and monitoring of sewage disposal by stack injection. Jensen, D.A., [1994,eng] 48-3387
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. Johnson, K., et al, [1994,eng] 48-3381
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors. Olofsson, J.A., et al, [1994,eng] 48-3375
See [also]: Waste disposal

Sewage treatment
Accumulation and use of wastes as an integral part of the use of natural resources (Eastern Siberia). Zabortseva, T.I., [1989,rus] 48-905
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Development of snow melting works using sewage treatment water. Toyama Prefecture Civil Engineering Department, [1988,jpn] 48-660
Experiments on snow melting by sewage treatment water. Imai, T., et al, [1987,jpn] 48-551
Mechanical freezing of alum sludge. Martel, C.J., [1994,eng] 48-5376
Operation and monitoring of sewage disposal by stack injection. Jensen, D.A., [1994,eng] 48-3387
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211

Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] 48-3382
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. Johnson, K., et al, [1994,eng] 48-3381
Safe water for villages of the North Slope Borough. Shillington, E.I., et al, [1994,eng] 48-3376
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors. Olofsson, J.A., et al, [1994,eng] 48-3375
See [also]: Aeration; Waste treatment

Shaft sinking
Destruction and rehabilitation of shaft lining in frozen shaft. Wang, C.S., et al, [1993,chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft. Wang, C.S., et al, [1993,eng] 48-5243
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] 48-486
Preliminary study on the freezing point in soil. Cui, G.X., et al, [1993,eng] 48-5200
Study of preventing frost heave with shaft construction for dissipating water energy. Wang, S.R., [1993,chi] 48-4501

Shafts (excavations)
Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] 48-478
Study on preventing frost heave of the shaft-type energy dissipator. Wang, S.R., [1993,eng] 48-5246
See [also]: Mine shafts

Shaped charge effects
See [also]: Explosives

Shattering
See [also]: Frost shattering

Shear flow
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] 48-2393
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] 48-2085
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582

Shear properties
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Influence of below-freezing temperatures on the shear behavior of wet rock joints. Park, Y.J., [1992,eng] 48-3528
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431

Shear strength
Analysis of ice rubble shear strength data. Chao, J.C., [1993,eng] 48-4331
Anti-icing coating compositions. Murase, H., [1989,eng] 48-1872
Characteristic of shear creep of frozen fine sand. Mi, H.Z., et al, [1993,chi] 48-4579
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] 48-4481
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] 48-2048
Long-term shear strength at frozen/unfrozen transition zone. Ding, J.K., et al, [1992,chi] 48-1407
Long-term shear strength of frost-thaw transit zone. Ding, J.K., et al, [1993,eng] 48-5203
Long-term shear strength of frost-thaw transition zone. Ding, J.K., et al, [1993,chi] 48-4492
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] 48-2865
Snow adhesion to roof sheets at sub-freezing temperatures. Shimizu, M., et al, [1992,jpn] 48-3165
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] 48-1223
Strength characteristic of frozen sandy soil. Wu, Z.W., et al, [1993,chi] 48-1445

Shear stress
Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] 48-3510
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] 48-2856
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
Ice dynamics at Ice Station Weddell 1: I. Part I. Ackley, S.F., et al, [1992,eng] 48-3778
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] 48-5167
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] 48-3570
Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] 48-4829
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] 48-4181
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851

Shelf ice
See [also]: Ice shelves

Shells
On the creep tests of ice dome model in a low temperature laboratory. Tsukui, K., et al, [1993,jpn] 48-2002

Shelterbelts
See [also]: Forest strips

Shelters
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
On the creep tests of ice dome model in a low temperature laboratory. Tsukui, K., et al, [1993,jpn] 48-2002
See [also]: Portable shelters

Ship icing
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
Expulsive ice detector for aircraft or watercraft rigging. Goldberg, J.I., et al, [1993,eng] 48-4416
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1993,eng] 48-4338
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Infrared heater anti-icing system tests. Schultz, L.A., et al, [1993,eng] 48-4122
Prediction of bow spray frequency for a naval combatant. Lebiedzinski, K., et al, [1993,eng] 48-169
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Superstructure spray and ice accretion on a large U.S. Coast Guard cutter. Ryerson, C.C., [1993,eng] 48-855
Three-dimensional time-dependent ship icing model. Zakrzewski, W.P., et al, [1993,eng] 48-172
Vessel icing in Alaskan waters—1979 to 1984 data set. Pease, C.H., et al, [1985,eng] 48-1143

Ships
3-D simulation of hydrodynamic loading on a propeller with ice blockage at proximity. Shih, L.Y., et al, [1993,eng] 48-3115
Arctic research vessel design would expand science prospects. Elsner, R., et al, [1993,eng] 48-2160
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] 48-4295
Canadian Habbakuk Project; a project of the National Research Council of Canada. Gold, L.W., [1990,eng] 48-311
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Classification of the *Nathaniel B. Palmer* to the new ABS ice strengthening rules. Masullo, A.A., [1994,eng] 48-3018
Documentation of the manoeuvering simulation computer routine. Lindström, C.A., [1993,fin] 48-1844
Effect of lateral ice pressure on ship resistance. Spencer, D.S., et al, [1993,eng] 48-112
Effect of radial dynamic responses on the service life of stern-tube bearings in icebreakers. Muramovich, V.G., et al, [1993,rus] 48-3763
Experiments with cutting tools to simulate propellers in ice. Veitch, B., et al, [1993,eng] 48-2128
Feasibility study for an ice-capable oceanographic ship. Strasel, E.S., et al, [1993,eng] 48-4253
Finnish firms in arctic shipping joint venture.[1993,eng] 48-3228
Full-scale observations of ship performance in ice. Kujala, P., et al, [1993,eng] 48-106
Ice damage to the hulls of icebreaking ships. Karavanov, S.B., [1993,eng] 48-117
Ice load measurements on board the cutter M.S. *Uisko*. Kivimaa, S., [1993,eng] 48-119
Ice navigating capability in the Northern Sea Route. Likhomanov, V.A., et al, [1993,eng] 48-107
Icebreaker, tug, rescuer. Putin, O., [1992,rus] 48-3794
Interaction between ice and propeller. Jussila, M., et al, [1991,eng] 48-4892
Investigation into the effects of ice cover parameters upon ship resistance. Alekseev, IU.N., et al, [1994,eng] 48-3950
Laboratory investigations of ice-structure contact. Tuhkuri, J., [1993,eng] 48-151
Method for calculating ice loads encountered by propeller blades. Beliashov, V.A., [1993,eng] 48-121
Method for ship level ice resistance computation. Alekseev, IU.N., et al, [1993,eng] 48-163
Multipurpose underwater transport ship outfitted for the Arctic. Dronov, B.F., et al, [1992,rus] 48-748
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] 48-4292
New ships and offshore structures for the Arctic.[1992,rus] 48-750
Nuclear powered icebreaker "Lenin": its construction. Papkovskii, B., [1994,rus] 48-5398
Numerical model of the icebreaking process at the bow of a ship advancing in level ice. Valanto, P.U., [1993,eng] 48-170
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Performance of ice-navigating vessels in the northern Baltic in winter 1992. Pöntynen, H., [1992,eng] 48-2133
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Repeated ice impacts and ship resistance in fragmented ice. Aboulazm, A.F., [1993,eng] 48-100
Scaling relationships for icebreaking based on analysis of a simple wedge. Spencer, D.S., et al, [1993,eng] 48-175
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Ship in compressive ice: preliminary model test results. Kujala, P., et al, [1991,eng] 48-4891
Ship in compressive ice; analysis of the ice failure process. Kujala, P., et al, [1993,eng] 48-168
Ship interaction with a single ice floe: a simulation model. Lindström, C.A., [1993,eng] 48-1843
Ship reinforcement for negotiating ice. Tromso Skipsverft, [1992,eng] 48-4423
Ship speed and ice submerging resistance. Kämäräinen, J., [1993,eng] 48-4903
Ship-ice contact and design ice loads. Kujala, P., et al, [1994,eng] 48-4290
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174
Technical-economic basis for improving the ice navigability of transport ships and icebreakers. Ierusalimskii, A.V., et al, [1989,rus] 48-310
Technical-economic indicators and development perspectives for the nuclear fleet. Levin, B.M., [1992,rus] 48-1271
Transient response model of low-speed diesel engine in icebreaking cargo vessels. Larmi, M., [1993,eng] 48-3647
See [also]: Icebreakers; Marine transportation; Oceanographic ships; Submarines; Tanker ships

Shock waves
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] 48-2866
Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] 48-1005
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Snow equation-of-state. Barthel, J.R., [1990,eng] 48-3614
Stress waves through graphite/epoxy laminated plates. Hui, D., et al, [1993,eng] 48-2063

Shore erosion
1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Delay of arctic shoreline erosion by artificial spray ice. Sackinger, W.M., et al, [1994,eng] 48-3974
Denmark marine foreland formation and glacial eustasy. Bruun, P., et al, [1993,eng] 48-1384
Effects of navigation in ice on near-shore vegetation and sediment. Tuthill, A.M., et al, [1994,eng] 48-5547
Experimental study on the overtopping of breakwaters by ice floes and waves. Saeki, H., et al, [1993,eng] 48-156
Ice pileup on Hokkaido from tsunami of March 1952. Saeki, H., et al, [1993,jpn] 48-1050
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
On a role of sea ice in morpholithogenesis of Okhotsk Sea coasts. Makhinov, A.N., et al, [1993,eng] 48-1084
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Stabilisation of the tidal entrance at Hornafjordur, Iceland. Viggosson, G., et al, [1993,eng] 48-157

Shore ice
See [also]: Fast ice

Shoreline modification
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] 48-3805
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Holocene marine coastal evolution of the United States. Fairbridge, R.W., [1992,eng] 48-1924
Ice in the shore zone and the geomorphology of cold coasts. Forbes, D.L., et al, [1994,eng] 48-4974
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475

Shores
Arctic coastal ecosystems. Bliss, L.C., [1993,eng] 48-1123
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634

Dry coastal ecosystems of Alaska. Batten, A.R., et al, [1993,eng] **48-1124**
Dry coastal ecosystems of Greenland. Daniels, F.J.A., et al, [1993,eng] **48-1125**
Frost damage to coastal concrete structures in Japan. Ayuta, K., et al, [1986,eng] **48-5313**
Holocene sea ice variations on Ellesmere I., arctic Canada. Stewart, T.G., et al, [1983,eng] **48-3339**
Ice limits—eastern Canadian seaboard. Cote, P.W., [1989,eng] **48-2813**
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] **48-414**
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] **48-1097**
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] **48-4989**
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] **48-3798**
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] **48-4948**
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] **48-372**
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] **48-1383**
Post-glacial relative sea-level history of northwestern Spitsbergen, Svalbard. Forman, S.L., [1990,eng] **48-2684**
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] **48-2464**
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] **48-4162**
See [also]: Banks (waterways); Beaches; Coastal topographic features; Littoral zone

Side looking radar
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] **48-179**
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] **48-3484**
Intercomparison of ERS-1 SAR, airborne SLAR and electromagnetic ice-thickness data. Ikeda, M., et al, [1994,eng] **48-3456**

Sidewalks
Changes and future prospects for sidewalk snow removal equipment. Oshima, S., et al, [1988,jpn] **48-557**
Changes in sidewalk snow removal equipment. Kawabata, T., et al, [1989,jpn] **48-702**
Draft for a guide on safety measures for sidewalk snow removal equipment. Yamamoto, H., et al, [1989,jpn] **48-677**
Field monitoring of frost-related sidewalk cracking. Baker, T.H.W., et al, [1994,eng] **48-3366**
Pedestrian space in snowy country. Nishiue, H., [1986,jpn] **48-28**
Pilot program to provide pedestrian space in winter. Suzuki, A., [1989,jpn] **48-699**
Snow removal plan for sidewalks and snowy roads in Shibata City. Shimotsuma, I., [1989,jpn] **48-701**
Viewpoint on the sidewalk snow removal plan in Takikawa City. Goto, N., [1989,jpn] **48-700**

Silver iodide
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] **48-3077**
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] **48-2370**
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] **48-4717**
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] **48-1742**
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] **48-2081**

Silver iodide generators
See [also]: Smoke generators

Simulation
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] **48-5504**
Ab initio characterization of ClOOH: implications for atmospheric chemistry. Lee, T.J., et al, [1993,eng] **48-2316**
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] **48-936**
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] **48-993**
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] **48-3585**
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] **48-4699**
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] **48-4713**
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] **48-4053**
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] **48-2811**
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] **48-1230**
Arctic source for the Great Salinity Anomaly in the Greenland Sea. Häkkinen, S., [1993,eng] **48-976**
Assessment of ice model testing techniques. Riska, K., et al, [1994,eng] **48-4295**
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] **48-2919**
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] **48-964**
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] **48-4921**
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] **48-4170**
Case study in forecasting the stratospheric vortex during EASOE. Carver, G.D., et al, [1994,eng] **48-5500**
Chemical interactions of tropospheric halogens on snow/ice. Molina, M.J., [1993,eng] **48-3059**
Chemical problems in KOSI comet simulation experiments. Roessler, K., [1991,ger] **48-3679**
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] **48-4194**
Clouds of ammonia ice: laboratory measurements of the single-scattering properties. Pope, S.K., et al, [1992,eng] **48-992**
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] **48-957**
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] **48-4697**
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] **48-947**
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] **48-753**
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] **48-2424**
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] **48-952**
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] **48-2019**
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] **48-1118**
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] **48-341**
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] **48-2380**
Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] **48-4706**
Evaluation and improvement of icebreaker performance. Schwarz, J., et al, [1994,eng] **48-4296**
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] **48-4844**
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] **48-4845**
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] **48-1536**
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] **48-4853**
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] **48-486**
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] **48-3618**
Flow of ices in the ammonia-water system. Durham, W.B., et al, [1993,eng] **48-923**
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] **48-5125**
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] **48-4934**
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] **48-4480**
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] **48-2599**
GCM study of the late January 1991 "mini-hole" event observed during EASOE. Orsolini, Y., et al, [1994,eng] **48-5502**
Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] **48-2378**
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] **48-4839**
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] **48-5019**
Halogen and sulfur reactions relevant to polar chemistry. Wine, P.H., et al, [1993,eng] **48-3061**
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] **48-2349**
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] **48-1475**
Ice force interaction effects in multi-legged conical structures. Määttänen, M., [1992,eng] **48-1538**
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] **48-2690**
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] **48-2574**
Ice/rock porous mixtures: compaction experiments and interpretation. Leliwa-Kopystyński, J., et al, [1993,eng] **48-3591**
Icebreaking performance from model scale tests. Jones, S.J., et al, [1994,eng] **48-4297**
Impact of freezing of sulfate aerosols on the formation of polar stratospheric clouds. Larsen, N., [1994,eng] **48-4441**
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] **48-2575**
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] **48-4280**
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] **48-4281**
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] **48-4596**
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] **48-3811**
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] **48-4209**
Interhemispheric comparison of stratospheric polar dynamics. Manney, G.L., et al, [1993,eng] **48-629**
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] **48-71**
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] **48-2512**
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] **48-2556**
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] **48-995**
Laboratory experiments of oil spreading in brash ice. Sayed, M., et al, [1993,eng] **48-2689**
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] **48-2146**
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] **48-3922**
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] **48-458**
Laboratory simulation of polar stratospheric clouds. Callaghan, R., et al, [1994,eng] **48-4693**
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] **48-3623**
Laboratory study of flow in ice-covered, dune-bed channels. Smith, B., et al, [1992,eng] **48-1543**
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] **48-4851**
Laboratory testing of a flexible boom for ice management. Løset, S., et al, [1993,eng] **48-2688**
Laser ice probe aids ozone study. Troy, C.T., [1993,eng] **48-2431**
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] **48-315**
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] **48-2987**
Light scattering by finite hexagonal crystals arbitrarily oriented in space. Brogniez, G., [1989,eng] **48-1477**
Load transmission through ice rubble on the Gulf Molikpaq. Timco, G.W., [1993,eng] **48-2687**
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] **48-520**
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] **48-1614**
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] **48-210**
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] **48-1566**
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] **48-3619**
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] **48-987**
Modeling the Martian seasonal CO2 cycle, pt.2. Paige, D.A., et al, [1992,eng] **48-988**
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] **48-2020**
Modes of ice cover failure during shoving and thickening. Zufelt, J.E., [1992,eng] **48-1559**
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] **48-5368**
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] **48-603**
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] **48-5004**
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] **48-3149**
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] **48-2381**
Numerical simulation of arctic sea-ice and ocean circulation. Holland, D.M., [1994,eng] **48-4843**
Numerical simulation of the ice age climate. Wang, H.J., et al, [1993,eng] **48-3221**
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] **48-4192**
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] **48-4174**
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] **48-621**
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] **48-2085**
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] **48-1751**
Ozone destruction and bromine photochemistry at ground level in the arctic spring. Finlayson-Pitts, B.J., et al, [1990,eng] **48-3296**
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] **48-5127**
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] **48-5490**
Photochemical box model of ozone loss in the Northern Hemisphere. Lutman, E.R., et al, [1994,eng] **48-5491**
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] **48-2315**
Physical model study of ice jamming at a low level crossing. Smith, C.D., [1992,eng] **48-1544**
Polar stratospheric cloud dynamics during arctic winters. Chipperfield, M.P., [1994,eng] **48-5119**

Portable device for the simulation of air frosts at remote field locations. Thorpe, P.C., et al, [1993,eng] 48-2468
Preparation and analysis of analog material for KOSI comet simulation experiments. Roessler, K., [1991,ger] 48-4759
Primary study on composition of methane hydrate. Deng, Y.S., et al, [1993,eng] 48-373
Proceedings, Vol.3. IAHR Symposium on Ice, 11th, Banff, Alberta, Canada, June 15- 19, 1992, [1992,eng] 48-1532
Proceedings. NATO Advanced Research Workshop on the Tropospheric Chemistry of Ozone in the Polar Regions, Wolfville, Nova Scotia, Canada, Aug. 23-28, 1992, [1993,eng] 48-3045
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] 48-2219
Rapid descent of mesospheric air into the stratospheric polar vortex. Fisher, M., et al, [1993,eng] 48-627
Reactions of BrO radication relevant to polar chemistry. Le Bras, G., [1993,eng] 48-3062
Reactions of halogen species on ice surfaces. Hanson, D.R., et al, [1993,eng] 48-3060
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Second report of the IAHR Working Group on Ice Modelling Materials. Timco, G.W., [1992,eng] 48-1560
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] 48-5418
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] 48-4184
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
Simulation of ice loads on a boom. Løset, S., [1994,eng] 48-5112
Simulation of North Polar atmospheric chemistry. Douglass, A., et al, [1993,eng] 48-628
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Simulation of the climate of the last 200 kyr with the LLN 2D-model. Gallée, H., et al, [1993,eng] 48-4196
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] 48-983
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Spectroscopic studies of model polar stratospheric cloud films. Tolbert, M.A., et al, [1992,eng] 48-2635
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Surface areas and porosities of ices used to simulate stratospheric clouds. Keyser, L.F., et al, [1993,eng] 48-1247
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Temporal variation of cloud fraction: effects on a simulated sea-ice cover. Maslanik, J.A., et al, [1993,eng] 48-4655
Thermal anti-icing systems for aero-engine intakes. Riley, S.J., et al, [1993,eng] 48-2806
Thermal behavior of rocky material in contact with ice. Kömle, N.I., et al, [1994,eng] 48-4154
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three- dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] 48-4247
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222
Uptake of HCl in water ice and nitric acid ice films. Chu, L.T., et al, [1993,eng] 48-966
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] 48-5501
See [also]: Computerized simulation; Environment simulation; Models

Sinks
See [also]: Heat sinks

Sintering
See [also]: Ice sintering

Site surveys
Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] 48-4749
Altitudinal distribution of vascular plants in the mountains of the Kronotskiy reservation. Kuvaev, V.B., [1993,rus] 48-4225
Analysis of Upper Kolyma Highland lichen flora. Kotlov, IU.V., [1993,rus] 48-4224
Comparative characteristics of the flora in the vicinity of Penkigney Bay and neighboring territories. Sekretareva, N.A., [1993,rus] 48-4223
Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] 48-402
Engineering geology investigation report of Tanggula army service station. Huang, Y.Z., et al, [1992,chi] 48-1492
Engineering geology of the Tuotuo River army station. Huang, Y.Z., [1992,chi] 48-1493
Engineering geology of the Wudaoliang army station. Huang, Y.Z., [1992,chi] 48-1490
Engineering geology of the Wudaoliang oil pump station. Guo, D.X., et al, [1992,chi] 48-1491
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Geographical analysis of the flora in the Cherek Bezengiiskii River basin (Central Caucasus). Part I. Portenier, N.N., [1993,rus] 48-4275
Glacier geophysical studies for an ice-core site at Taylor Dome: year two. Morse, D.L., et al, [1992,eng] 48-2627
Lecanora geophila and *Arctpeltis thuleana* (Lichenes) from the Siberian Arctic. Zhurbenko, M.P., et al, [1993,rus] 48-4227
Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands. Perestenko, L.P., [1993,rus] 48-5274
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] 48-1483
Siting the DEW line radar stations. Brannian, J.D., [1957,eng] 48-290
Taylor Dome ice-core study. Grootes, P.M., et al, [1992,eng] 48-2626
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464

Skid resistance
Adaptor disk for attaching an anti-skid device to a wheel disk or rim. Preusker, R., et al, [1990,eng] 48-2201
Airport friction control in wintertime. Antvik, G., [1994,eng] 48-3967
Anti-skid device for tired vehicle wheels. Oda, Y., [1990,eng] 48-2256
Anti-skid device for vehicle wheels with automatic positioning by securing members. Metraux, M., [1991,eng] 48-1365
Anti-skid spike pins of hard rubber for shoes or vehicle tyres. Yamada, H., [1992,eng] 48-4425
Antiskid device for motor vehicles. Zampieri, P., [1990,eng] 48-2184
Antiskid device having rotatable crossbands. Koshi, M., [1991,eng] 48-1732
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Current status and future prospects of studless tires. Hayashi, H., [1989,jpn] 48-671
Experimental car and trailer axle cornering characteristics at low friction conditions. Vågstedt, N.G., [1994,eng] 48-3107
Field performance of porous asphalt pavement in cold areas. Nitta, N., et al, [1993,eng] 48-5085
Indoor test of ice and snow tires on iced drum tester. Shimizu, K., et al, [1992,jpn] 48-1850
Influences of adjustable tire pressure (CTIS) and anti skid devices when driving in snow. Bernhardsson, S., [1993,eng] 48-1172
Nonmetal antiskid devices for tires. Iwane, M., [1986,jpn] 48-262
Pedestrian anti-skid winter footwear. Gard, G., et al, [1994,eng] 48-3947
Performance test of various tires on roads in snow and ice. Murakuni, M., et al, [1988,jpn] 48-563
Performance tests on winter tires. Ninagawa, K., et al, [1986,jpn] 48-19
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] 48-4237
Radial tyre for improved braking performance on icy, snow and wet roads. Bridgestone Corporation, [1993,eng] 48-5528
Retractable tire stud. Nicholas, J.G., [1993,eng] 48-1653
Road freezing countermeasures. Onoda, M., [1987,jpn] 48-548
Science of snow and ice (10). Inoue, M., [1987,jpn] 48-544
Traction device for different size tires. Parker, T.J., III, [1989,eng] 48-4077
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] 48-1199
Tread for pneumatic tire intended for winter driving. Lagnier, A., [1991,eng] 48-1518
Tyre slip prevention device. Toyo Tire and Rubber Company Ltd, [1989,eng] 48-4420
Winter maintenance on porous asphalt. Noort, M., [1991,eng] 48-3070
See [also]: Traction

Skis
Basic principles of alpine ski bindings and tribology. Kondo, H., [1994,jpn] 48-3998
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Device for testing ski sliding surface. Kamenskikh, V.A., et al, [1990,eng] 48-2187
Double edge snow ski. Minidis, J.D., [1992,eng] 48-2237
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
Review of the friction of snow skis. Colbeck, S.C., [199 ,eng] 48-4952
Short ski climber. Matthews, D.R., [1991,eng] 48-2274
Ski having a variable width upper surface. Diard, J.L., et al, [1990,eng] 48-2260
Ski having a variable width upper surface. Diard, J.L., et al, [1990,eng] 48-2265
Ski with increased toe pinning ability. Varan, C.O., et al, [1990,eng] 48-2177
Skis with probe for controlling speed and maneuverability. Humphrey, J.M., [1990,eng] 48-2178
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851
Test plan for military skis and bindings. Hoger, S.E., et al, [1993,eng] 48-1770
Tribology of skiing and skating. Tsushima, K., [1994,jpn] 48-3997

Slab avalanches
See [also]: Snow slides

Slide sections
See [also]: Microscope slides; Thin sections

Sliding
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] 48-1735
Glacial land forms indicative of a partly frozen bed. Kleman, J., et al, [1994,eng] 48-5162
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
See [also]: Basal sliding

Slope orientation
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] 48-5207
Highwall stability in strip mines in permafrost. Vakili, J., [1994,eng] 48-3392
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Rutschblock precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] 48-3593
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] 48-5219
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869

Slope processes
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Analysis of permafrost solifluction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Chemical and physical features of the active layer as related to landslides on Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-2299
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Deformations of shoreline slopes of reservoirs in permafrost regions. Gogolev, E.S., [1992,rus] 48-4781
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849

Frost shattering and Pleistocene periglacial slope processes. Mary, G.M.E., [1988,eng] 48-2563
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] 48-423
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] 48-2542
Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] 48-693
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-419
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] 48-2020
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] 48-300
Periglacial landform development in West Antarctica. Zhu, C., [1993,eng] 48-507
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] 48-5202
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] 48-4487
Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] 48-2295
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388
Stone bank stratification in an alpine environment. Bertran, P., et al, [1993,fre] 48-1149
Stone trails on unstable slopes. Dumas, B., et al, [1993,eng] 48-1848
Systematization of the concepts related to Quaternary deposits and to their gravitational slope processes. Korzhenevskii, B.I., [1992,rus] 48-3726
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782

Slope protection
Action of ice push force against the dam and slope protection in reservoirs. Li, H.S., et al, [1994,eng] 48-5548
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Delay of arctic shoreline erosion by artificial spray ice. Sackinger, W.M., et al, [1994,eng] 48-3974
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] 48-5242
Problems of slope protection latticeworks in cold regions. Noto, S., et al, [1988,jpn] 48-562

Slope stability
Analysis of permafrost solifluction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] 48-4405
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] 48-3232
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] 48-5242
Highwall stability in strip mines in permafrost. Vakili, J., [1994,eng] 48-3392
Index system for delineating landslide regions. Wang, C.H., et al, [1992,eng] 48-4409
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Landslide hazards in Vermont. Baskerville, C.A., et al, [1993,eng] 48-3283
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] 48-3233
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Prediction of avalanche hazardous slopes using topographic maps. Moishi, M., [1986,jpn] 48-33
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Stone trails on unstable slopes. Dumas, B., et al, [1993,eng] 48-1848
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410

Slopes
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Morphometry of limestone clasts belonging to slope debris and glacial deposits. Cortemiglia, G.C., [1993,ita] 48-4099

Slovenia
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499

Sludges
Domestic sludge, a resource for Alaska. Johnson, R.A., [1980,eng] 48-4144
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Mechanical freezing of alum sludge. Martel, C.J., [1994,eng] 48-5376
Operation and performance of sludge freezing bed at Fort McCoy, Wisconsin. Martel, C.J., [1994,eng] 48-3386
Valdez initiates sludge disposal operations. Van Hemert, W., et al, [1993,eng] 48-1886
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973

Slush
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2828
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] 48-4920
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972
See [also]: Wet snow

Smoke generators
Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] 48-2958
Preproduction qualification test of a smoke generating system. Reagan, J., et al, [1994,eng] 48-5435

Snow
Dictionary of snow and ice. Japanese Society of Snow and Ice (Nihon seppyo gakkai), [1990,jpn] 48-755
Ecology Glacier glaciology and meteorology, King George I., 1990-1991. Bintanja, R., [1992,eng] 48-740
New alga of red snow in the Windmill Is. region. Ling, H.U., et al, [1993,eng] 48-770
Study on snow attaching to the TACAN antenna. Kuwahara, Y., et al, [1994,eng] 48-4215
See [also]: Artificial snow; Blowing snow; Colored snow; Falling snow; Slush; Wet snow

Snow accumulation
1988 mass-balance determination of Sentinel, Place and Helm glaciers, British Columbia. Schmok, J., [1988,eng] 48-2364
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Advance of Italian glaciers of Mont Blanc between 1962 and 1989. Cerutti, A.V., [1993,ita] 48-4098
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] 48-2956
Antarctic climate of the UKMO Unified Model. Connolley, W.M., et al, [1994,eng] 48-3041
Antarctic Peninsula contribution to future sea level rise. Paren, J.G., et al, [1993,eng] 48-1565
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] 48-2844
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
Australian snowfields past and present. Galloway, R.W., [1986,eng] 48-203
Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] 48-3497
Characteristics of avalanching: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] 48-2394
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] 48-1273
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Contribution of Antarctic Peninsula ice to sea level rise. Morris, E.M., ed, [1992,eng] 48-779
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] 48-1791
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Development of a meteorological forecast for snow accumulation on transmission lines. Ito, T., et al, [1993,eng] 48-2836
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Filchner IV campaign and the 320 m deep ice core B15. Oerter, H., et al, [1992,eng] 48-242
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Glacial start and global warming: what to watch. Kukla, G., [1993,eng] 48-1797
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] 48-4093
Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al, [1994,eng] 48-4766
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662
How does the Greenland ice sheet geometry remember the ice age. Abe-Ouchi, A., et al, [1994,eng] 48-3521
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] 48-2855
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] 48-5369
Improving snow data.[1994,eng] 48-3238
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] 48-1183
Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] 48-3710
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
Model projections of CO_2-induced equilibrium climate change. Schlesinger, M.E., [1993,eng] 48-1566
Need for removing biases from rain and snowgage measurements. Legates, D.R., [1993,eng] 48-1804
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] 48-2841
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] 48-608
Recent precipitation trends over the polar ice sheets. Bromwich, D.H., et al, [1993,eng] 48-1914
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] 48-2846
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Seasonal snowfall statistics for selected stations.[1988,eng] 48-3495
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] 48-616
Snowy year from coast to coast. Ludlum, D.M., [1994,eng] 48-3324
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] 48-5031
Spatial temperature and accumulation rate variations in the Antarctic Peninsula. Peel, D.A., [1992,eng] 48-781
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Surface mass balance of the Antarctic Peninsula ice sheet. Frolich, R.M., [1992,eng] 48-780
Taylor Dome ice-core study. Grootes, P.M., et al, [1992,eng] 48-2626
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] 48-1786
Typification of winters according to the snow accumulation regime in the example of Zailiyskiy Alatau. Girovka, N.N., [1992,rus] 48-4454
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921

Snow acoustics
Attenuation of outdoor sound propagation levels by a snow cover. Albert, D.G., [1993,eng] **48-2607**
Snow and road traffic noise. Hasebe, M., et al, [1988,jpn] **48-659**

Snow air interface
Aerodynamic torque in snow accretion on transmission lines. Poots, G., et al, [1993,eng] **48-819**
Air gaps at the bottom of a melting two-layered snow cover. Nohguchi, Y., [1993,jpn] **48-3170**
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] **48-4763**
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] **48-2862**
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] **48-2386**
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] **48-2835**
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] **48-1344**
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] **48-2844**
Associations between snow cover extent and surface air temperature over North America. Robinson, D.A., et al, [1993,eng] **48-2944**
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] **48-4278**
Calculation of snowmelt. Shutov, V.A., [1993,eng] **48-5296**
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] **48-2842**
Condensed gases under winter conditions: a study for the rescue services. Winter, S., et al, [1992,swe] **48-4719**
Continuous measurements of Greenland ice core chemistry. Fuhrer, K., et al, [1993,eng] **48-1233**
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] **48-1791**
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] **48-3249**
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] **48-1676**
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] **48-3208**
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] **48-2827**
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] **48-2376**
Examining the influence of snow cover on morning air temperature. Hogan, A.W., et al, [1993,eng] **48-2948**
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] **48-3553**
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] **48-1818**
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] **48-2829**
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] **48-2867**
Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] **48-3421**
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] **48-2989**
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] **48-3907**
Numerical simulation of snowdrift. Uematsu, T., [1992,jpn] **48-3167**
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] **48-2841**
On the breakup of the nocturnal cooling layer in a basin in snowmelt season. Kodama, Y., et al, [1992,jpn] **48-3207**
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] **48-4671**
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] **48-2822**
Overview of large scale effects of seasonal snow cover. Li, P.J., [1993,chi] **48-4593**
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] **48-3908**
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] **48-3909**
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] **48-2053**
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] **48-2939**
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] **48-4166**
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] **48-3888**
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] **48-4446**
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] **48-1155**
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] **48-4707**
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] **48-2401**
Size distribution of atmospheric trace elements at Dye 3, pt.1. Hillamo, R.E., et al, [1993,eng] **48-3892**
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] **48-5060**
Snow cover and climate. Cohen, J., [1994,eng] **48-4768**
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] **48-1803**
Snow equation-of-state. Barthel, J.R., [1990,eng] **48-3614**
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] **48-2952**
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] **48-2938**
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] **48-2845**
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] **48-3542**
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] **48-2864**
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] **48-2847**
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] **48-132**
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] **48-3906**
System for use in providing compressed air for snow making equipment. Sloan, M.D., [1989,eng] **48-4079**
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] **48-2870**
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] **48-1786**
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] **48-1234**
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] **48-3161**

Snow compaction
Compaction and ablation processes of road snow and ice. Maeno, N., [1989,jpn] **48-674**
Development of a method for predicting snowfall intensity and compacted snow on roads. Funada, H., et al, [1993,jpn] **48-1852**
Effect of addition of water on snow compaction. Vigneault, C., et al, [1994,eng] **48-3745**
Science of snow and ice (11). Inoue, M., [1988,jpn] **48-574**

Snow composition
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] **48-4763**
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] **48-2386**
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] **48-2782**
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] **48-2922**
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] **48-3894**
Atmosphere-snow transfer function for hydrogen peroxide. Conklin, M.H., et al, [1993,eng] **48-2675**
Atmospheric transfer of hydrocarbons to the Greenland ice sheet, pt.1. Jaffrezo, J.L., et al, [1993,eng] **48-3891**
Automatic monitoring system for acid rain and snow based on ion chromatography. Oikawa, K., et al, [1994,eng] **48-5145**
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] **48-2858**
Chemical composition of Himalayan glacier ice. Nijampurkar, V.N., et al, [1993,eng] **48-1273**
Chemical composition of precipitation in a prealpine area of eastern Switzerland. Langenegger, O., [1990,eng] **48-1593**
Chemical composition of snow cover on the western Swiss Alps. Parriaux, A., et al, [1990,eng] **48-1594**
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] **48-3154**
Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] **48-1858**
Composition of melt water from urban snow. A laboratory study. Viklander, M., et al, [1994,eng] **48-3968**
Concentration of soluble impurities in Collins Ice Cap, King George I. Han, J.K., et al, [1993,chi] **48-2028**
Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] **48-218**
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] **48-2957**
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] **48-2801**
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] **48-338**
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] **48-3885**
Dye 3 air and snow chemistry, pt.2. Davidson, C.I., et al, [1993,eng] **48-3886**
Dye 3 Gas and Aerosol Sampling Program (DGASP): an overview. Jaffrezo, J.L., et al, [1993,eng] **48-3884**
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] **48-3755**
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] **48-2047**
Heavy metal traces in antarctic ice and snow. Heumann, K.G., [1993,eng] **48-2382**
HT deposition to snow. Chalk River Laboratories, March, 5-6, 1991. Ogram, G.L., [1992,eng] **48-2644**
Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado. Peters, N.E., et al, [1993,eng] **48-2962**
Ice core analysis in arctic and antarctic regions. Legrand, M.R., [1993,eng] **48-3056**
Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] **48-2949**
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] **48-3659**
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] **48-5146**
Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] **48-444**
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] **48-4981**
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] **48-2840**
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] **48-3245**
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] **48-2920**
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] **48-2550**
Limnological research in Terra Nova Bay area. Guilizzoni, P., et al, [1992,eng] **48-4767**
Measurements of ^{7}Be and ^{210}Pb in rain, snow, and hail. Gaffney, J.S., et al, [1994,eng] **48-4977**
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] **48-1818**
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] **48-4849**
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] **48-3907**
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] **48-219**
Oxygen-18 of snow meltwater and snow cover. Suzuki, K., [1993,jpn] **48-3187**
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] **48-3908**
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] **48-3909**
Probe for acidity of falling snow and deposited snow. Hasegawa, T., et al, [1993,jpn] **48-1964**
Radioecology of Terra Nova Bay. Triulzi, C., et al, [1992,ita] **48-4211**
Radionuclide presence in snow and aerosols during AGASP. Dibb, J.E., et al, [1993,eng] **48-3888**
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] **48-3153**
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] **48-1155**
Rock-forming metals and Pb in modern Alaskan snow. Hinkley, T.K., [1993,eng] **48-3641**
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] **48-2941**
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] **48-1824**
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] **48-2952**
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] **48-3210**
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] **48-2950**
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] **48-2082**
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] **48-954**
Solar flares in antarctic ice cores. Dreschhoff, G.A.M., et al, [1993,eng] **48-3940**
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] **48-3058**
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] **48-5031**
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] **48-3542**
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] **48-4575**
Study on acid snow. Araki, K., et al, [1987,jpn] **48-550**
Sulfate and MSA in the air and snow on the Greenland Ice Sheet. Jaffrezo, J.L., et al, [1994,eng] **48-4599**
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps. Dray, M., et al, [1990,fre] **48-1591**
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] **48-2832**
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] **48-3890**

Snow compression
Development of a large-volume snow to ice converter. Miyagawa, M., [1988,jpn] **48-661**
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] **48-8**
Reciprocating snow to ice converter; density of the input snow. Kobiyama, M., et al, [1993,jpn] **48-3174**
Relationship between the microstructure and mechanical properties of snow. Edens, M.Q., et al, [1993,eng] **48-1175**
Snow to ice converter. Narita, M., [1988,jpn] **48-662**
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] **48-1223**

Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] **48-2963**
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] **48-2852**

Snow (construction material)
Economics of snow use (storing vegetables in snow). Hatori, A., [1988,jpn] **48-655**
New concept in trail grooming—"the KRC Groomer". Alger, R.G., [1994,eng] **48-3371**
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] **48-1171**

Snow cornices
Road shoulder windbreak fences and snow cornice prevention fences. Senken Steel Company, [1986,jpn] **48-36**

Snow cover
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] **48-3075**
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] **48-1338**
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers. Kalabin, G.V., ed, et al, [1992,rus] **48-2117**
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] **48-2047**
Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] **48-2217**
Ion chromatography of alpine snow. Nickus, U., et al, [1994,eng] **48-5146**
Method of ecological normalization of technogenic stresses. Davydova, N.D., et al, [1990,rus] **48-2074**
Model for remote sensing of anisotropic layers. Nghiem, S.V., et al, [1993,eng] **48-2408**
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] **48-4251**
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] **48-3907**
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] **48-1097**
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] **48-2871**
Photoprotective function for secondary carotenoids of snow algae. Bidigare, R.R., et al, [1993,eng] **48-725**
Principles for the organization of a regional information system for ecological monitoring. Kalabin, G.V., et al, [1992,rus] **48-2121**
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] **48-1337**
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] **48-2426**
Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] **48-1293**
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] **48-1824**
Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera. D'iakonov, K.N., et al, [1993,rus] **48-3740**
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] **48-3933**
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] **48-132**
Terrain characterization for trafficability. Shoop, S.A., [1993,eng] **48-718**
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] **48-2870**
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] **48-1234**
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] **48-2509**

Snow cover distribution
Analysis of visible and microwave satellite data for snow mapping in Alaska. Hall, D.K., et al, [1993,eng] **48-2937**
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] **48-3697**
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] **48-2066**
Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] **48-2924**
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] **48-2844**
Associations between snow cover extent and surface air temperature over North America. Robinson, D.A., et al, [1993,eng] **48-2944**
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] **48-1108**
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] **48-1911**
Australian snowfields past and present. Galloway, R.W., [1986,eng] **48-203**
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] **48-3478**
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] **48-2863**
Correction of radiometric distortions in snow cover imagery. Holecz, F., et al, [1993,eng] **48-1685**
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] **48-1791**
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] **48-1808**
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] **48-3481**
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] **48-1721**
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] **48-1792**
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] **48-2927**
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] **48-1340**
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] **48-952**
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] **48-1676**
Effect of land cover type and season in microwave remote sensing of snow. Jääskeläinen, V., et al, [1993,eng] **48-1707**
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] **48-3426**
Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] **48-4706**
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] **48-1729**
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] **48-2848**
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] **48-4484**
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] **48-2945**
Experiment in analyzing the effect of local factors on the distribution of snow cover in mountains. Severskii, S.I., [1992,rus] **48-4465**
First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] **48-2017**
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] **48-4109**
Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] **48-2932**
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] **48-1101**
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] **48-2035**
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] **48-1350**
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment. Walker, D.A., et al, [1993,eng] **48-2970**
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] **48-5369**
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] **48-4930**
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] **48-4712**
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] **48-411**
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] **48-2920**
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] **48-1309**
Mapping of snow cover by ERS-1 SAR. Solberg, R., [1993,eng] **48-1717**
Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] **48-2933**
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] **48-1302**
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] **48-2953**
Mesh data sets of snow cover of the Northern Hemisphere. Masuda, K., et al, [1990,jpn] **48-3417**
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] **48-2780**
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] **48-3480**
Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient. IUrtsev, B.A., et al, [1993,rus] **48-1629**
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] **48-2969**
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] **48-1788**
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] **48-2613**
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data. Wiesmann, A., et al, [1994,eng] **48-3469**
North American snow cover variability, 1972-1993. Frei, A., et al, [1993,eng] **48-2926**
Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] **48-1789**
Operational snow cover mapping by satellites and real time runoff forecasts. Seidel, K., et al, [1993,eng] **48-2779**
Overview of research on snow in Alaska. Benson, C.S., [1993,eng] **48-1801**
Recent developments of the geographic snow information system. Granberg, H.B., et al, [1993,eng] **48-756**
Recent observed trends and modelled interannual variability in Canadian snow cover. Brown, R.D., et al, [1993,eng] **48-2968**
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] **48-4708**
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] **48-1511**
SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] **48-3479**
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] **48-325**
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] **48-324**
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] **48-323**
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] **48-322**
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] **48-326**
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] **48-321**
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] **48-5418**
Snow and permafrost in the Tian Shan Mountains. Hu, R.J., et al, [1993,eng] **48-5215**
Snow area detection by using AVHRR/NOAA. Kazama, S., et al, [1993,eng] **48-1724**
Snow cover and climate. Cohen, J., [1994,eng] **48-4768**
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] **48-3482**
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] **48-1312**
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] **48-422**
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] **48-1718**
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] **48-4447**
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] **48-4009**
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] **48-1768**
Snow cover variability in the Great Plains of the United States: 1910-1988. Hughes, M.G., et al, [1993,eng] **48-2925**
Snow depth mapping in Mongolia. Morton, D.C., et al, [1993,eng] **48-2967**
Snow distribution on crop fields. Scholten, H., [1988,eng] **48-1737**
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] **48-1343**
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] **48-985**
Snow hydrology. Nakatsugawa, M., et al, [1994,eng] **48-4931**
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] **48-5136**
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] **48-1796**
Snow type distribution in the coldest season in Japan. Daimaru, H., et al, [1993,jpn] **48-3181**
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] **48-1787**
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] **48-1602**
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] **48-616**
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] **48-3550**
Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] **48-2775**
Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] **48-1596**
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] **48-1799**
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] **48-2951**
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] **48-614**
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] **48-3712**
Statistical detection of climate change. MacNeil, I.B., [1993,eng] **48-1798**
Study of cloud and snow cover over Kinki district, west Japan. Inoue, J., [1990,eng] **48-4873**
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] **48-3332**
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1998,eng] **48-4869**
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] **48-1157**
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] **48-2921**

Snow cover effect
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] **48-4850**
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] **48-961**

Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] 48-399
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] 48-944
Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] 48-2922
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Associations between snow cover extent and surface air temperature over North America. Robinson, D.A., et al, [1993,eng] 48-2944
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Attenuation of outdoor sound propagation levels by a snow cover. Albert, D.G., [1993,eng] 48-2607
Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] 48-1946
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] 48-3229
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Burning of diesel oil spill. D'Atri, B., et al, [1993,eng] 48-3719
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Climate model response to solar constant reduction. Walsh, K.J., et al, [1993,eng] 48-2513
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] 48-2569
Cloud effects on snow-covered surface radiation budget. Nemesure, S., et al, [1994,eng] 48-4016
CO_2 monitored fluxes from northern terrestrial ecosystems. Zimov, S.A., et al, [1993,eng] 48-2310
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] 48-3594
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] 48-1805
Condensed gases under winter conditions: a study for the rescue services. Winter, S., et al, [1992,swe] 48-4719
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] 48-1683
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] 48-1713
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] 48-3426
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] 48-3208
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] 48-430
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Examining the influence of snow cover on morning air temperature. Hogan, A.W., et al, [1993,eng] 48-2948
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Flowering phenology in tundra plants. Molau, U., [1993,eng] 48-2423
Forecasting of river bed deformations in the permafrost zone. Are, F.E., et al, [1993,eng] 48-512
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Forest-growing potential of soils in the mountain boreal forests of southern Siberia. Ermolenko, L.G., et al, [1991,rus] 48-4145
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Glacial fluctuations and cryogenic environments in the Langtang Valley, Nepal Himalaya. Shiraiwa, T., [1993,eng] 48-4641
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] 48-3654
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Global climate. Kondrat'ev, K.IA., [1992,rus] 48-304
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] 48-3255
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Groundwater temperatures during the winter in a forested basin. Calkins, D.J., [1993,eng] 48-2923
Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment. Walker, D.A., et al, [1993,eng] 48-2970
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] 48-2054
Ice cover of the Arctic basin. Romanov, I.P., [1992,rus] 48-4148
Ice cover of the arctic basin. Romanov, I.P., [1993,eng] 48-2311
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] 48-5369
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] 48-3553
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] 48-444
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] 48-632
Light reflection from sea ice during the onset of melt. Perovich, D.K., [1994,eng] 48-3197
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] 48-3384
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] 48-1788
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] 48-1789
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] 48-4671
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 43-2853
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] 48-2537
Optimal thermal melioration of soil in climatic conditions of the North. Romanov, P.G., et al, [1992,rus] 48-4791
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Overview of large scale effects of seasonal snow cover. Li, P.J., [1993,chi] 48-4593
Overview of research on snow in Alaska. Benson, C.S., [1993,eng] 48-1801
Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Procedure for protecting soils from water erosion. Chmil, A.N., [1992,eng] 48-4070
Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412
Recent developments of the geographic snow information system. Granberg, H.B., et al, [1993,eng] 48-756
Reduction of terrestrial gamma rays by snow cover. Sakamoto, R., et al, [1990,jpn] 48-3675
Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Role of snow cover in the differentiation of vegetation in southern Wrangel' Island: the cenotic level. Kholod, S.S., [1993,rus] 48-1630
Role of snow cover in the pollution of landscapes in the Murmansk region. Ratkin, N.E., et al, [1992,rus] 48-2119
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] 48-2834
Severe snow loads on mountain afforestation in Japan. Nitta, R., et al, [1991,eng] 48-3702
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] 48-2348
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] 48-3256
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] 48-1778
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow and permafrost in the Tian Shan Mountains. Hu, R.J., et al, [1993,eng] 48-5215
Snow cover and climate. Cohen, J., [1994,eng] 48-4768
Snow cover effect in spring. Groisman, P.IA., et al, [1994,eng] 48-2553
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] 48-1718
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] 48-5136
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] 48-1796
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] 48-1787
Snow-cover condition in Japan and damage of the sugi (*Cryptomeria japonica* D. Don). Taira, H., [1991,eng] 48-3703
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Snowstorm effects on Birmingham ambulances services, UK. Speakman, D., [1994,eng] 48-3498
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Strength variability of major river-ice types. Prowse, T.D., et al, [1993,eng] 48-1156
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting. Kholod, S.S., [1993,rus] 48-4226
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410

Subnivean development of a snowbank geophyte. Hamerlynck, E.P., et al, [1994,eng] 48-3503
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Thermal variation in vegetated or snow-covered background scenes and its effect on passive infrared systems. Peck, L., [1993,eng] 48-2535
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Uncertainties in the global warming issue and the cryosphere. Yasunari, T., [1992,jpn] 48-3161
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] 48-3656
Winter ground gremlins. Cox, B., [1990,eng] 48-1920
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240
Wiper motor driving device for automotive vehicles. Nishikawa, I., [1990,eng] 48-4958
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

Snow cover stability
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344
Arrival date of stable snow cover and the extent of cold period precipitation in the Ili-Balkhash basin. Gal'ster, N.V., [1992,rus] 48-4467
Avalanche activity in Tuckerman Ravine. Boyne, H., [1994,eng] 48-3274
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Avalanche handbook. Gabl, K., ed, et al, [1988,ger] 48-2127
Avalanche handbook. McClung, D.M., et al, [1993,eng] 48-1945
Avalanche hazards and their weather patterns in the Tohoku District. Ito, T., et al, [1993,jpn] 48-1969
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] 48-2839
Avalanche report 1991/1992. Documentation and case studies. Ruhm, F., ed, [1993,ger] 48-765
Avalanche safety for skiers & climbers. Daffern, T., [1992,eng] 48-1933
Avalanches and meteorological conditions. Aoyama, K., [1988,jpn] 48-586
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] 48-2569
Computer applications for avalanche forecasting in the United States. Tremper, B., et al, [1993,eng] 48-2826
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Dynamics of snow avalanches and mathematical models. Nohguchi, Y., [1992,jpn] 48-3166
European scale of avalanche risk. Pahaut, E., [1993,fre] 48-1209
Forecasting of direct-action avalanches in terms of snow accumulation rates. Endo, Y., [1993,jpn] 48-3175
Growth of avalanche education in Japan. Nitta, R., et al, [1994,eng] 48-3277
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
Large scale avalanche at the Hakuba snow patch occurred on May 4th, 1992. Terada, H., et al, [1993,jpn] 48-3178
Measurements during rain on snow. Conway, H., et al, [1994,eng] 48-3273
Mechanical properties of snow. Navarre, J.P., [1993,ita] 48-1134
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Models to improve comprehension of avalanche mechanics. Gubler, H., [1992,fre] 48-4047
New unified scale for avalanche danger classification. Cagnati, A., [1993,ita] 48-1130
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
Physical processes in snowpacks during rain or melt events. Conway, H., [1994,eng] 48-2698
Prediction of avalanche hazardous slopes using topographic maps. Moishi, M., [1986,jpn] 48-33
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691
Rutschblock precision, technique variations and limitations. Jamieson, J.B., et al, [1993,eng] 48-3593
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] 48-2865
Snow avalanche disaster of winter 1992 in southeastern Anatolia, Turkey. Gürer, I., [1993,eng] 48-3173
Snow avalanches and the settlement of Langtang village, Nepal Himalaya. Watanabe, T., [1989,jpn] 48-3124
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851
Snow profile computer drafting package. Weir, P., [1994,eng] 48-4118
Snow sense: a guide to evaluating snow avalanche hazard. Fredston, J.A., et al, [1988,eng] 48-1957
Snow slab layers and stability: a summary of some recent research and experience. Jamieson, J.B., [1994,eng] 48-3271
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] 48-1223
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] 48-280
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4373
See [also]: Snow stabilization

Snow cover stratification
See [also]: Snow stratigraphy

Snow cover structure
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] 48-3599
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] 48-2862
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] 48-2819
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] 48-2854
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] 48-1792
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] 48-3249
Dyeing of snow surfaces to observe snow structure. Kovacs, A., [1993,eng] 48-3601
Dyeing of snow surfaces to observe structure. Kovacs, A., [1993,eng] 48-3001
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653
International classification of seasonal snow on the ground. Colbeck, S.C., et al, [1993,ita] 48-1135
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Radiometry of surface hoar on the Greenland ice sheet. Shuman, C.A., et al, [1993,eng] 48-1320
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851
Snow type distribution in the coldest season in Japan. Daimaru, H., et al, [1993,jpn] 48-3181
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Terminology and classification of road snow and ice. Maeno, N., [1988,jpn] 48-585

Snow cover thickness
See [also]: Snow depth

Snow creep
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
Short term settlement of footing on snow foundation. Mahajan, P., et al, [1993,eng] 48-1176

Snow crust
Investigation of sun crust formation using field data and laboratory experiments (I). Ozeki, T., et al, [1992,jpn] 48-3203

Snow crystal growth
Aggregation of snow crystals in the early growth stage. Takahashi, T., et al, [1992,jpn] 48-3202
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] 48-3894
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Elution of ions from melting snow: chromatographic versus metamorphic mechanisms. Cragin, J.H., et al, [1993,eng] 48-1006
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Phase change from cloud droplets to snow particles. Wada, M., [1993,eng] 48-1680

Snow crystal nuclei
Solid particles in the snow crystal—on the ice nucleating ability of yellow sand. Sakurai, K., [1991,jpn] 48-3420

Snow crystal structure
Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] 48-2833
Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] 48-2958
Aggregation of snow crystals in the early growth stage. Takahashi, T., et al, [1992,jpn] 48-3202
Analysis of accreted drop sizes and mass on rimed snow crystals. Mosimann, L., et al, [1994,eng] 48-5130
Charging of snow particles in blizzard. Shio, H., [1991,eng] 48-3681
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] 48-1336
International classification of seasonal snow on the ground. Colbeck, S.C., et al, [1993,ita] 48-1135
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] 48-2939
Physical properties of snow and ice particles. Maeno, N., [1991,jpn] 48-3419

Snow crystals
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772

Snow deformation
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] 48-2862
Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] 48-1005
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] 48-2399
Measurements during rain on snow. Conway, H., et al, [1994,eng] 48-3273
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] 48-2868
Relationship between the microstructure and mechanical properties of snow. Edens, M.Q., et al, [1993,eng] 48-1175
Short term settlement of footing on snow foundation. Mahajan, P., et al, [1993,eng] 48-1176
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] 48-1167

Snow densification
See [also]: Snow compression

Snow density
Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] 48-2833
Density of newly fallen snow along the coast of the Japan Sea. Yamada, Y., [1993,jpn] 48-4233
Effect of addition of water on snow compaction. Vigneault, C., et al, [1994,eng] 48-3745
ERS-1 altimeter tests on Filchner-Ronne Ice Shelf. Ridley, J.K., et al, [1992,eng] 48-250
Estimation method of newly fallen snow depth. Yamada, Y., [1993,jpn] 48-4234

Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] 48-1005
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Improving snow data.[1994,eng] 48-3238
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
Patterns of snow accumulation and O-18 in Queen Maud Land. Isaksson, E., [1991,eng] 48-1112
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] 48-2939
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Role of snow cover in the differentiation of vegetation in southern Wrangel' Island: the cenotic level. Kholod, S.S., [1993,rus] 48-1630
Simulation of a destructive avalanche at Maseguchi, Japan. McClung, D.M., et al, [1993,eng] 48-2821
Snow equation-of-state. Barthel, J.R., [1990,eng] 48-3614
Snow type distribution in the coldest season in Japan. Daimaru, H., et al, [1993,jpn] 48-3181
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] 48-2870
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] 48-2852

Snow depth

Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Atlas: morphometric characteristics of ice and snow in the arctic basin. Romanov, I.P., [1993,eng] 48-1911
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Characteristics of snow cover taking account of ram hardness in Hokkaido. Akitaya, E., et al, [1992,jpn] 48-3205
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] 48-1683
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Effect of Eurasian snow cover on regional and global climate variations. Barnett, T.P., et al, [1989,eng] 48-1676
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Estimating localized SWE on the Yellowstone northern range. Farnes, P.E., et al, [1993,eng] 48-2928
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] 48-2945
Estimation method of newly fallen snow depth. Yamada, Y., [1993,jpn] 48-4234
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions. Skriabin, P.N., et al, [1992,rus] 48-4800
Evaluation of the data measured by MSR related to snowpack parameter. Suzuki, M., et al, [1990,jpn] 48-4875
First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] 48-2017
Forest-growing potential of soils in the mountain boreal forests of southern Siberia. Ermolenko, L.G., et al, [1991,rus] 48-4145
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] 48-2703
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] 48-2702
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] 48-3081
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] 48-3082
Ice thickness data, winter 1991-1992.[1993,eng] 48-2162
Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] 48-2940
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] 48-2933
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
Numerical modelling and forecast of the evolution of the ice cover on arctic seas in a thaw period. Appel', I.L., et al, [1992,rus] 48-1912
Portable FM-CW radar for collecting the ground truth data of snowpack. Sasaki, M., et al, [1993,eng] 48-1723
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Recent observed trends and modelled interannual variability in Canadian snow cover. Brown, R.D., et al, [1993,eng] 48-2968
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Research studies on the snow load on roofs (2). Tosaka, M., et al, [1993,jpn] 48-1997
Road weather data collection instruments. Ueda, S., [1986,jpn] 48-257
Role of snow cover in the differentiation of vegetation in southern Wrangel' Island: the cenotic level. Kholod, S.S., [1993,rus] 48-1630
Sensitivity of the French Alps snow cover to the variation of climatic variables. Martin, E., et al, [1994,eng] 48-5418
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] 48-1803
Snow depth in forests with various openness grades of canopies. Goto, Y., et al, [1993,jpn] 48-3180
Snow depth mapping in Mongolia. Morton, D.C., et al, [1993,eng] 48-2967
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] 48-1796
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al, [1992,eng] 48-3773
Snow type distribution in the coldest season in Japan. Daimaru, H., et al, [1993,jpn] 48-3181
Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. Powell, D.R., et al, [1993,jpn] 48-1965
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera. D'iakonov, K.N., et al, [1993,rus] 48-3740
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1990,eng] 48-4876
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] 48-3933
Subnivean development of a snowbank geophyte. Hamerlynck, E.P., et al, [1994,eng] 48-3503
Surface observation climatic summaries for Ellsworth AFB, South Dakota.[1991,eng] 48-4742
Surface observation climatic summaries for Fairbanks IAP, Alaska.[1991,eng] 48-4722
Surface observation climatic summaries for Fort Devens Ain, Massachusetts.[1991,eng] 48-4720
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas.[1991,eng] 48-4723
Surface observation climatic summaries for Fulda AAF, Germany.[1991,eng] 48-4743
Surface observation climatic summaries for Illesheim, Germany.[1991,eng] 48-4739
Surface observation climatic summaries for Kunsan AB, Korea.[1991,eng] 48-4738
Surface observation climatic summaries for McGuire AFB, New Jersey.[1991,eng] 48-4721
Surface observation climatic summaries for Wright-Patterson AFB, Ohio.[1991,eng] 48-3671
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany.[1992,eng] 48-4746
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon.[1991,eng] 48-3669
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4006
Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-3264
Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4127
Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4126

Snow disposal

Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] 48-2872
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] 48-5008
See [also]: Snow removal

Snow distribution

See [also]: Snow cover distribution

Snow drifts

See [also]: Snowdrifts

Snow electrical properties

Charging of snow particles in blizzard. Shio, H., [1991,eng] 48-3681
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] 48-1713
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2828
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] 48-2859
Hydraulic conveying of snow and ice—development of a snow-fraction meter. Kitahara, T., et al, [1993,jpn] 48-3184
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Microwave scattering measurements of Greenland firn. Lytle, V.I., et al, [1994,eng] 48-4830
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] 48-3031
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416
Portable FM-CW radar for collecting the ground truth data of snowpack. Sasaki, M., et al, [1993,eng] 48-1723

Snow erosion

Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] 48-3421
Numerical simulation of snowdrift. Uematsu, T., [1992,jpn] 48-3167
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938

Snow evaporation

Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] 48-325
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] 48-324
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] 48-323
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] 48-322
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] 48-326
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] 48-321
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] 48-2952
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921

Snow fences

Basic experiments on avalanche retarding structures. Shimomura, C., et al, [1988,jpn] 48-587
Changes and future topics for snow and cold weather operations in Aomori Prefecture. Sato, N., [1987,jpn] 48-272
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] 48-1736
Experiments of snow drift around the snow fences with model snow. Shirono, K., [1993,jpn] 48-1971
Investigation of material and geometric characteristics of highway snow fence. Perchanok, M.S., [1993,eng] 48-4005
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
New guidelines for blowing snow control. Tabler, R.D., [1993,eng] 48-1194
Northernmost winter roads. Takebayashi, T., et al, [1987,jpn] 48-282
Plastic snow fence system. Sura, A., [1990,eng] 48-2169
Road shoulder windbreak fences and snow cornice prevention fences. Senken Steel Company, [1986,jpn] 48-36
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938
Snowstorm guard fence structures and jet roofs. Ono, M., et al, [1990,eng] 48-2270
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] 48-280
Study on countermeasures for snowdrifts and drifting snow on National Highway 113. Tamaki, M., [1986,jpn] 48-259

Wrestling with snow and cold countermeasures at the Hokkaido Development Bureau. Hokkaido Development Bureau, [1988,jpn] 48-577

Snow gages
See [also]: Precipitation gages

Snow glide
See [also]: Snow slides

Snow hardness
Characteristics of snow cover taking account of ram hardness in Hokkaido. Akitaya, E., et al, [1992,jpn] 48-3205
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Science of snow and ice (11). Inoue, M., [1988,jpn] 48-574
Snow layers as avalanche triggers. Schweizer, J., [1993,eng] 48-2851

Snow heat flux
Calculation of snowmelt. Shutov, V.A., [1993,eng] 48-5296
Characteristics of heat exchanger for melting of piled snow. Aoki, K., et al, [1993,eng] 48-876
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] 48-3206
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] 48-3249
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] 48-3208
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] 48-2827
Groundwater temperatures during the winter in a forested basin. Calkins, D.J., [1993,eng] 48-2923
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] 48-3553
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Investigation of sun crust formation using field data and laboratory experiments (I). Ozeki, T., et al, [1992,jpn] 48-3203
Ion exchange intensity between soil and snow. Ostroumov, V.E., et al, [1993,eng] 48-444
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
On the breakup of the nocturnal cooling layer in a basin in snowmelt season. Kodama, Y., et al, [1992,jpn] 48-3207
On the effects of sastrugi on snow albedo. Kelley, J.J., et al, [1990,eng] 48-4671
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Science of snow and ice (7). Inoue, M., [1987,jpn] 48-268
Snowmelt over permafrost area in the arctic Alaska. Kodama, Y., et al, [1990,eng] 48-4670
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] 48-2946
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845

Snow hedges
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
New guidelines for blowing snow control. Tabler, R.D., [1993,eng] 48-1194
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Wind tunnel test for snowbreak forests along a highway. Yoshizawa, M., et al, [1993,jpn] 48-1972
Wrestling with snow and cold countermeasures at the Hokkaido Development Bureau. Hokkaido Development Bureau, [1988,jpn] 48-577

Snow highways
See [also]: Snow roads

Snow hydrology
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794
Air gaps at the bottom of a melting two-layered snow cover. Nohguchi, Y., [1993,jpn] 48-3170
Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] 48-285
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] 48-944
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] 48-4713
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Calculation of snowmelt. Shutov, V.A., [1993,eng] 48-5296
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Chemical composition of snow cover on the western Swiss Alps. Parriaux, A., et al, [1990,eng] 48-1594
Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] 48-1858
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Deriving snow liquid water content using C-band polarimetric SAR. Shi, J.C., et al, [1993,eng] 48-1705
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] 48-2019
Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] 48-4706
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] 48-1729
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Forecasting snowmelt volume from remote sensing data. Mushiake, N., et al, [1993,eng] 48-1681
Forecasting water supply from snowpack. Johnson, D.E., [1993,eng] 48-682
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] 48-2378
Hydro-meteorological automatic observation system and research plan. Ishikawa, N., et al, [1992,jpn] 48-3218
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526
Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado. Peters, N.E., et al, [1993,eng] 48-2962
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] 48-1567
Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] 48-2949
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] 48-5369
Improving methods for measurement and estimation of snow storage in alpine watersheds. Elder, K., et al, [1990,eng] 48-1578
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Investigation of sun crust formation using field data and laboratory experiments (I). Ozeki, T., et al, [1992,jpn] 48-3203
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al, [1990,eng] 48-1580
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] 48-2767
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480
Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] 48-5157
Modeling and observation of polarimetric SAR response to dry snow. Shi, J.C., et al, [1993,eng] 48-1706
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] 48-683
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] 48-2939
Physical processes in snowpacks during rain or melt events. Conway, H., [1994,eng] 48-2698
Point modeling of snow cover water equivalent. Rohrer, M.B., et al, [1990,eng] 48-1583
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993, [1993,eng] 48-679
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] 48-4708
Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] 48-1582
Role of snowmelt in generating streamflow during spring in east Nepal. Kattelmann, R.C., [1993,eng] 48-2777
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479
Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] 48-1577
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] 48-325
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] 48-324
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] 48-323
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] 48-322
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] 48-326
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] 48-321
Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] 48-2295
Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] 48-1598
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] 48-2766
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] 48-1579
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Snow hydrology. Nakatsugawa, M., et al, [1994,eng] 48-4931
Snow research at Lanzhou Institute of Glaciology and Geocryology. Yang, D.Q., [1993,eng] 48-1800
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snowmelt and water quality changes in small rivers. Symader, W., et al, [1993,eng] 48-1776
Snowmelt assessment in a complex system of reservoirs (Comunidad de Madrid). Cubillo, F., [1990,eng] 48-1595
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Snowmelt in medium-high mountains and recharging of underlying karst. Chauve, P., et al, [1990,fre] 48-1574
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Snowmelt runoff forecasting. Pangburn, T., et al, [1993,eng] 48-685
Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] 48-1596
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] 48-2950
Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] 48-2946
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] 48-2790
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1990,eng] 48-4876
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1998,eng] 48-4869

Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps. Dray, M., et al, [1990,fre] 48-1591
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Water equivalent of snow and backscattering at C-band. Kondoh, A., et al, [1993,eng] 48-1708

Snow ice
Reciprocating snow to ice converter; density of the input snow. Kobiyama, M., et al, [1993,jpn] 48-3174

Snow ice interface
Accumulation rates of polar snow on antarctic ice sheets. Davis, C.H., [1993,eng] 48-1684
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] 48-3673
Analysis of backscattering from snow covers on arctic and antarctic sea ice. Tjuatja, S., et al, [1993,eng] 48-1704
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
C-band microwave backscatter of sea ice in the Weddell Sea during the winter of 1992. Drinkwater, M.R., et al, [1993,eng] 48-1690
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] 48-1683
Effects of ice and snow density on minimum isotropic strain rate. Gao, X.Q., [1993,chi] 48-4578
Effects of sea water percolation through first year ice. Hudier, E.J.J., et al, [1993,eng] 48-1075
Electromagnetic ice thickness sensor for marginal ice zone. Prinsenberg, S.J., et al, [1993,eng] 48-178
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
Ice thickness data for Canadian selected stations, freeze-up 1976—break-up 1977.[1977,eng] 48-2703
Ice thickness data for Canadian selected stations, freeze-up 1977—break-up 1978.[1978,eng] 48-2702
Ice thickness data for selected Canadian stations, freeze-up 1970—break-up 1971.[1971,eng] 48-3081
Ice thickness data for selected Canadian stations, freeze-up 1971—break-up 1972.[1972,eng] 48-3082
Ice thickness data, winter 1991-1992.[1993,eng] 48-2162
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] 48-3710
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] 48-3711
Observation of the heat flux between atmosphere and ocean with remote sensing (I). Sasaki, Y., et al, [1990,eng] 48-4682
Preliminary analyses on the synoptic and climatic features in Guliya ice cap region. Zhang, X.P., et al, [1993,chi] 48-4574
Preliminary results from sea ice studies off the Okhotsk Sea coast of Sakhalin. Shirasawa, K., et al, [1993,eng] 48-1047
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-1716
Reports on antarctic climate research (II). Japanese Society of Snow and Ice. Antarctic Climate Research (ACR) Planning Committee, [1993,jpn] 48-3190
Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] 48-2834
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] 48-1778
Snow and ice distribution in the Weddell Sea. Eicken, H., et al, [1994,eng] 48-4168
Spatial variations of chemical species in Guliya ice cap. Li, Y.F., et al, [1993,chi] 48-4575
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] 48-2792
Strength of river ice in the high snow accumulation region of Hokkaido, Japan. Hara, F., et al, [1994,eng] 48-5581
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210

Snow impurities
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] 48-4763
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] 48-2386
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Cadmium concentrations in recent snow and firn layers in the Canadian Arctic. Nriagu, J.O., et al, [1994,eng] 48-4278
Chemical composition of precipitation in a prealpine area of eastern Switzerland. Langenegger, O., [1990,eng] 48-1593
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] 48-3154
Composition of melt water from urban snow. A laboratory study. Viklander, M., et al, [1994,eng] 48-3968
Concentration of soluble impurities in Collins Ice Cap, King George I. Han, J.K., et al, [1993,chi] 48-2028
Condensed gases under winter conditions: a study for the rescue services. Winter, S., et al, [1992,swe] 48-4719
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] 48-3755
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
HT deposition to snow. Chalk River Laboratories, March, 5-6, 1991. Ogram, G.L., [1992,eng] 48-2644
Local deposition of heavy metal emissions from point sources in Antarctica. Suttie, E.D., et al, [1993,eng] 48-1232
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Polar ice cores and climate. Lorius, C.J., [1989,eng] 48-221
Pollution of fallen snow in urban areas. Tachibana, H., et al, [1994,eng] 48-3966
Probe for acidity of falling snow and deposited snow. Hasegawa, T., et al, [1993,jpn] 48-1964
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Role of snow cover in the pollution of landscapes in the Murmansk region. Ratkin, N.E., et al, [1992,rus] 48-2119
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Spatial and temporal trends of snow chemical composition at northern Victoria Land (Antarctica). Piccardi, G., et al, [1994,eng] 48-5031
Spatial distribution of snow and aerosol chemistry in the mountains of central Asia. Wake, C.P., [1994,eng] 48-3542
Study on acid snow. Araki, K., et al, [1987,jpn] 48-550
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Terrain and geochemical aspects of the interaction between natural and anthropogenic factors. Khrustaleva, M.A., [1990,rus] 48-2072
Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234
Variations in Greenland snow heavy metal concentration. Boutron, C.F., et al, [1993,eng] 48-3890

Snow line
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Andean cirque floors as Pleistocene equilibrium indicators. Schulz, G., [1991,ger] 48-3650
Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924
Associations between snow cover extent and surface air temperature over North America. Robinson, D.A., et al, [1993,eng] 48-2944
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Developing conditions, amounts and distributions of glaciers in Gongga Mountains. Su, Z., et al, [1993,chi] 48-4587
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] 48-952
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Mesh data sets of snow cover of the Northern Hemisphere. Masuda, K., et al, [1990,jpn] 48-3417
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
New correlation of the glacial moraines in the Southern Apennines, Italy. Palmentola, G., et al, [1990,eng] 48-2102
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] 48-1817
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Simple photogrammetric survey methods for glaciology and erosion control. Waldhäusl, P., [1986,ger] 48-610
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] 48-3550
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1990,eng] 48-4876
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1998,eng] 48-4869

Snow loads
Aerodynamic torque in snow accretion on transmission lines. Poots, G., et al, [1993,eng] 48-819
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Buckling of geodesic domes under snow loads. Part 8. Sugino, H., et al, [1993,jpn] 48-1999
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] 48-2508
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] 48-552
Estimating the weight of a snow cover using only meteorological factors. Shinojima, K., et al, [1993,eng] 48-2850
Estimation of stresses on bridge railings by accumulated snow. Kitamura, N., et al, [1989,jpn] 48-672
Evaluating snow risk potential in urban areas. Kitaura, M., et al, [1993,jpn] 48-1980
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978. Jordan Marsh Company. Central Service Facility, [1978,eng] 48-1871
Experimental study of snow drifting on two-level flat roofs. Suzuya, J., et al, [1993,jpn] 48-1996
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] 48-3163
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
Ice accretion problem in Canadian waters related to offshore energy and transportation. Brown, R.D., et al, [1985,eng] 48-1128
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] 48-829
Method to estimate icing loads on overhead lines. Pezard, J., [1993,eng] 48-831
Modeling the impact of a snow avalanche on a structure: an experimental investigation. Shurova, I.E., et al, [1994,eng] 48-2469
Monitoring of snow and ice accretion on overhead line test spans. Wareing, J.B., et al, [1993,eng] 48-836
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Relation between snow and damage on external wall of reinforced concrete construction. Tashiro, K., et al, [1993,jpn] 48-1983
Research studies on the snow load on roofs (2). Tosaka, M., et al, [1993,jpn] 48-1997
Return period conversion coefficient for ground snow load on design. Takahashi, T., et al, [1993,jpn] 48-1995
Roof-snow load for seismic-design calculations—discussion. Brown, J.W., et al, [1994,eng] 48-2356
Severe snow loads on mountain afforestation in Japan. Nitta, R., et al, [1991,eng] 48-3702
Short term settlement of footing on snow foundation. Mahajan, P., et al, [1993,eng] 48-1176
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Snow adhesion to roof sheets at sub-freezing temperatures. Shimizu, M., et al, [1992,jpn] 48-3165
Snow loads on transmission and distribution lines in Alaska. Peabody, A.B., [1993,eng] 48-842
Snow-cover condition in Japan and damage of the sugi *(Cryptomeria japonica* D. Don). Taira, H., [1991,eng] 48-3703
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] 48-280
Warning system for snow accretion on power lines. Wakamatsu, K., et al, [1993,eng] 48-838
Wet snow models for estimating snow load on power lines. Sakamoto, Y., et al, [1993,eng] 48-830
Wooden bracing and wall length for a snow-proof house. Uchiyama, K., et al, [1993,jpn] 48-1998

Snow manufacturing
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282

Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] **48-1470**
Observations on machine-made snow as a millimeter-wave obscurant. Yankielun, N.E., et al, [1993,eng] **48-3031**
Snow making nozzle assembly. Humphrey, H., Jr., et al, [1990,eng] **48-2200**
System for use in providing compressed air for snow making equipment. Sloan, M.D., [1989,eng] **48-4079**
See [also]: Artificial snow

Snow mechanics
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] **48-3249**
Effect of addition of water on snow compaction. Vigneault, C., et al, [1994,eng] **48-3745**
Formation of floods caused by outbursts from snow dams. Keremkulov, V.A., [1992,rus] **48-4453**
Friction characteristics of granular snow avalanches. Dent, J.D., [1993,eng] **48-2856**
Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] **48-1005**
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] **48-2399**
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] **48-4716**
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] **48-2868**
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] **48-2817**
Relationship between the microstructure and mechanical properties of snow. Edens, M.Q., et al, [1993,eng] **48-1175**
Snowpack compression using element analysis. Mohamed, A.M.O., et al, [1993,eng] **48-1223**

Snow melting
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] **48-3599**
Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] **48-2794**
Air gaps at the bottom of a melting two-layered snow cover. Nohguchi, Y., [1993,jpn] **48-3170**
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] **48-2862**
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] **48-2837**
Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] **48-2947**
Characteristics of heat exchanger for melting of piled snow. Aoki, K., et al, [1993,eng] **48-876**
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] **48-3206**
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] **48-2569**
Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] **48-2872**
Control device for a snow melter. Taguchi, T., [1986,jpn] **48-37**
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] **48-5008**
Development of snow melting works using sewage treatment water. Toyama Prefecture Civil Engineering Department, [1988,jpn] **48-660**
Development trends in snow melting devices using heat pumps. Shinojima, K., [1988,jpn] **48-658**
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] **48-1340**
Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] **48-3426**
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] **48-3208**
Electric-heater roof snow melter. Yoshida, N., et al, [1993,jpn] **48-1986**
Electrically heatable windshield. Osada, K., et al, [1991,eng] **48-1733**
Experiment on using overflow lines for snow melting. Kobayashi, T., et al, [1988,jpn] **48-663**
Experimental study on roof snow melting system by bar-shaped carbon heater. Sano, O., et al, [1993,jpn] **48-1988**
Experiments on snow melting by sewage treatment water. Imai, T., et al, [1987,jpn] **48-551**
Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] **48-1994**
Horn shaped snow melting device. Mitsubishi Electric Corporation, [1993,eng] **48-4437**
Ice and snow melt. Greenwald, S., [1986,eng] **48-4274**
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] **48-2855**
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] **48-567**
Investigation of sun crust formation using field data and laboratory experiments (I). Ozeki, T., et al, [1992,jpn] **48-3203**
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] **48-1296**
Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] **48-2342**
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] **48-975**
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] **48-5387**
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] **48-1517**
On the breakup of the nocturnal cooling layer in a basin in snowmelt season. Kodama, Y., et al, [1992,jpn] **48-3207**
Piping apparatus for melting snow and ice. Ohashi, K., [1989,eng] **48-4080**
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] **48-3802**
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] **48-4645**
Recent trends in snow melting facilities in the Hokuriku Region. Kuwahara, T., [1989,jpn] **48-711**
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] **48-703**
Road snow melting by solar energy and heat pipes. Konagai, N., [1986,jpn] **48-264**
Roof snow sliding system with electric heater. Harada, H., et al, [1993,jpn] **48-1987**
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] **48-2601**
Scattering of radiowaves by a melting layer of precipitation. Zhang, W., [1994,eng] **48-4165**
Sea-ice growth in Ongul Strait, Antarctica. Kawamura, T., et al, [1993,eng] **48-2834**
Simple compact snow melter. Saito, H., [1986,jpn] **48-26**
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] **48-3482**
Snow melting apparatus. Brady, B.D., [1993,eng] **48-1655**
Snow melting heater mats. Bayless, R.E., et al, [1990,eng] **48-2263**
Snow melting measures in Asahikawa City. Ito, H., et al, [1988,jpn] **48-566**
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [1993,eng] **48-1195**
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles. Higashiyama, Y., et al, [1993,jpn] **48-1989**
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] **48-2600**
Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] **48-2946**
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] **48-4957**
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] **48-568**
See [also]: Meltwater; Snow melting; Snowmelt

Snow metamorphism
See [also]: Metamorphism (snow)

Snow morphology
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] **48-3437**
Dyeing of snow surfaces to observe structure. Kovacs, A., [1993,eng] **48-3001**
International classification of seasonal snow on the ground. Colbeck, S.C., et al, [1993,ita] **48-1135**
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects. Okinshevich, V.V., [1990,rus] **48-306**
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] **48-2822**
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] **48-3416**

Snow optics
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] **48-4819**
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] **48-2004**
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] **48-1297**
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] **48-3229**
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] **48-3206**
Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] **48-1321**
Connectivity of snow particles. Itagaki, K., et al, [1993,eng] **48-2819**
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] **48-2110**
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] **48-2927**
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] **48-2145**
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] **48-1338**
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] **48-1619**
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] **48-3812**
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] **48-1336**
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] **48-1022**
Field test of a new snow-particle counter (SPC) system. Sato, T., et al, [1993,eng] **48-2843**
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] **48-4653**
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] **48-1296**
Landsat TM derived and *in situ* summer reflectance of glaciers in Svalbard. Winther, J.G., [1993,eng] **48-632**
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] **48-2346**
Multiple scattering model for the atmosphere-snow system. Aoki, T., et al, [1993,eng] **48-2989**
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] **48-1310**
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] **48-2871**
Precipitation intensity and type determined by light attenuation technique. Lundberg, A., et al, [1994,eng] **48-3963**
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] **48-1313**
Reduction of terrestrial gamma rays by snow cover. Sakamoto, R., et al, [1990,jpn] **48-3675**
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] **48-1346**
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] **48-1228**
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] **48-2401**
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] **48-1339**
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] **48-1158**
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] **48-1802**
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] **48-1778**
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] **48-985**
Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992, [1993,eng] **48-1787**
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] **48-3712**
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] **48-2345**
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] **48-2363**
Visual range in airborne snow particles. Takeuchi, M., [1991,jpn] **48-3423**

Snow pellets
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] **48-4853**
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] **48-2081**
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] **48-1682**
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] **48-209**
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] **48-951**
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] **48-1679**
Snow pellet heat transfer during ice crystal collisions. Jayaratne, E.R., [1993,eng] **48-983**
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] **48-4854**

Snow permeability
Air gaps at the bottom of a melting two-layered snow cover. Nohguchi, Y., [1993,jpn] **48-3170**
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] **48-3908**
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] **48-2939**
Transformation process observations of polar firn to ice. Langway, C.C., Jr., et al, [1993,eng] **48-2852**

Snow physics
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] **48-2862**
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] **48-2866**
Assessment of ice particle growth processes at Dye-3, Greenland. Borys, R.D., et al, [1993,eng] **48-3894**
Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] **48-2854**
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] **48-3249**
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] **48-1338**
Electrostatic effects on saltating snow particles. Schmidt, S., et al, [1993,eng] **48-2859**
Infiltration of water into snow. Conway, H., et al, [1994,eng] **48-4451**
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] **48-2840**
Measurements of hydrogen peroxide in antarctic ambient air, snow and firn cores. Jacob, P., et al, [1993,eng] **48-1818**
Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] **48-2342**
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] **48-2868**

Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
One-dimensional model of the evolution of snow-cover characteristics. Yamazaki, T., et al, [1993,eng] 48-2822
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] 48-3774
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155
Snow equation-of-state. Barthel, J.R., [1990,eng] 48-3614
Snow properties and surface elevation profiles in the western Weddell Sea. Lytle, V.I., et al, [1992,eng] 48-3773
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] 48-2870
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] 48-1786
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] 48-1167

Snow pillows
Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al. [1990,eng] 48-1580

Snow plastics friction
See [also]: Plastics snow friction

Snow precipitation
See [also]: Snowfall

Snow recrystallization
See [also]: Metamorphism (snow)

Snow removal
Adjustable one-way trip edge snow plow. Verseef, J.H., [1991,eng] 48-2254
Adjustable wheel for snow plow. Street, W.L., [1990,eng] 48-2174
Application of a snow water mixture transport system for urban areas. Isobe, K., et al, [1988,jpn] 48-561
Assuring the safety of road traffic in winter. Kinki Regional Construction Bureau, [1988,jpn] 48-582
Auger for self-propelled snow removing machine. Ogano, T., et al, [1990,eng] 48-2196
Auger snowblower. O'Loughlin, H., [1989,eng] 48-4086
Automatic system for controlling snow on roofs. Tamura, M., [1993,eng] 48-2837
Blade of snow plough. Zolotov, IU.F., [1992,eng] 48-5513
Bucket attachment for use with snow blade. Long, J.D., [1990,eng] 48-2186
Bulletin on road snow removal for 1987. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-573
Bulletin on road snow removal for 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-707
Bulletin on road snow removal in the 1986 snowstorms. Fujieda, H., [1986,jpn] 48-39
Bulletin on the budget for snow and cold weather operations for 1987. Fujieda, H., [1987,jpn] 48-283
Bulletin on the budget for snow and cold weather operations for 1988. Japan. Ministry of Construction. Road Bureau, [1988,jpn] 48-565
Calculation of flow in the network of snow removing channel. Sugimori, M., [1992,jpn] 48-3158
Changes and future prospects for sidewalk snow removal equipment. Oshima, S., et al, [1988,jpn] 48-557
Changes and future topics for snow and cold weather operations in Aomori Prefecture. Sato, N., [1987,jpn] 48-272
Changes in sidewalk snow removal equipment. Kawabata, T., et al, [1989,jpn] 48-702
Classification of the various types and characteristics of snowfall sensor. Tamura, M., [1993,jpn] 48-3182
Cold region development technology in Hokkaido. Hokkaido Development Agency (Hokkaido kaihatsucho), [1989,eng] 48-4236
Cold region road maintenance in the 9th Five-Year Plan. Suzuki, A., [1988,jpn] 48-576
Comparison of Japanese snow removal technologies. Hayakawa, N., et al, [1993,eng] 48-2872
Controlling the proportion of snow in snow removal drains. Kitahara, T., et al, [1992,jpn] 48-3164
Convertible grass cutting and snow blowing machine having a cylindrical rotor. Fontaine, A.G., [1991,eng] 48-2235
Current status and future developments of snow and ice technology. Kuriyama, H., [1987,jpn] 48-271
Current status of snow removal equipment. Yamamoto, H., [1988,jpn] 48-555
Current status of the snowy region. Shinjo City Construction Department, [1986,jpn] 48-23
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV). Richmond, P.W., et al, [1994,eng] 48-3095
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] 48-5008
Detachable snow plow assembly. Kowalczyk, D., [1990,eng] 48-2166
Development of a circulation-type snow removal drain system. Sato, Y., [1989,jpn] 48-705
Development of a large-volume snow to ice converter. Miyagawa, M., [1988,jpn] 48-661
Development of a snow removal truck to manage high snowbanks. Nakamura, O., et al, [1986,jpn] 48-266
Development of a snow-fraction meter based on the conductometric method. Kitahara, T., et al, [1993,eng] 48-2628
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Development of operations management systems for snow removal equipment. Oana, H., et al, [1988,jpn] 48-556
Development of snow melting works using sewage treatment water. Toyama Prefecture Civil Engineering Department, [1988,jpn] 48-660
Development of technology for hydraulic transport of snow. Kobayashi, T., et al, [1987,jpn] 48-281
Development trends in snow melting devices using heat pumps. Shinojima, K., [1988,jpn] 48-658
Draft for a guide on safety measures for sidewalk snow removal equipment. Yamamoto, H., et al, [1989,jpn] 48-677
Effectiveness of calcium magnesium acetate deicer. Perchanok, M.S., et al, [1992,eng] 48-3069
Electric-heater roof snow melter. Yoshida, N., et al, [1993,jpn] 48-1986
Estimated budget requirements for snow and cold weather operations for 1987. Fujieda, H., [1986,jpn] 48-267
Estimated budget requirements for snow and cold weather operations for 1988. Fujieda, H., [1987,jpn] 48-554
Estimated budget requirements for snow and cold weather operations for 1989. Nakagawa, M., [1988,jpn] 48-665
Experiment on using overflow lines for snow melting. Kobayashi, T., et al, [1988,jpn] 48-663
Experimental study of snow removing channel system driven by water jets. Kobayashi, T., et al, [1993,jpn] 48-3189
Experimental study on roof snow melting system by bar-shaped carbon heater. Sano, O., et al, [1993,jpn] 48-1988
Experiments on snow melting by sewage treatment water. Imai, T., et al, [1987,jpn] 48-551
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] 48-1994
Goals and methods of winter maintenance in Finland. Katko, K., [1993,eng] 48-1188
Good ideas to improve winter maintenance.[1994,eng] 48-5300
Hard insert for ice/snow clearing tool. Nilsson, E.R., et al, [1991,eng] 48-2233
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
High efficiency snowthrower. Brown, R.R., et al, [1990,eng] 48-2193
Highway de-icers: standards, practice and research in the Province of Ontario. Perchanok, M.S., et al, [1991,eng] 48-3068
Highway operations: progress and products update. Smith, K.H., et al, [1991,eng] 48-3705
Horn shaped snow melting device. Mitsubishi Electric Corporation, [1993,eng] 48-4437
Hydraulic conveying of snow and ice—development of a snow-fraction meter. Kitahara, T., et al, [1993,jpn] 48-3184
Hydraulic system for use with snow-ice removal vehicles. Kime, J.A., et al, [1990,eng] 48-2194
Hydraulic transport of snow by pipe. Umemura, A., et al, [1986,jpn] 48-32
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Installation of geothermal heat pipes. Yashiro, M., [1988,jpn] 48-567
Introduction to flexible plows (variable curved surface-type). Ishiguro, F., [1988,jpn] 48-590
Investigation of forces incurred during snow plowing. Steiger, W., et al, [1993,eng] 48-1170
Kanazawa in snow. Takamoto, M., [1986,jpn] 48-34
Loading, transport, and removal of roadside snowbanks. Watanabe, T., [1986,jpn] 48-260
Looking back on the snowstorms of 1986. Endo, I., et al, [1986,jpn] 48-15
Machines for feeder control in hydraulic transport of snow. Murayama, K., et al, [1992,jpn] 48-3159
Making a snow mountain (application of a pipe transport system for snow water mixture). Isobe, K., et al, [1986,jpn] 48-35
Making a snowproof town—Nagaoka New Town. Nishida, T., [1988,jpn] 48-559
Manually operated snow plow or other utility device. Asay, Z.L., [1990,eng] 48-2185
Method of evaluating the cost of snow removal. Sakai, T., et al, [1993,jpn] 48-3186
Methods and materials for snow and ice control on Swedish roads and runways. Gustafson, K., [1993,eng] 48-1193
Metro Division snow and ice research field studies 1992-1993 winter season. Barnes, M., [1993,eng] 48-4905
Microwave locator of objects buried in snow. Stanford, M., [1994,eng] 48-3275
MINSALT—extension of the regions in Sweden where salt is not used: effect studies. Øberg, G., [1993,eng] 48-1208
Multipurpose snow-handling machine. Dronov, V.G., [1993,rus] 48-745
Nagaoka thriving in the snow. Nagaoka City Civil Engineering Department, [1987,jpn] 48-553
Negatively buoyant jet/plume with applications to snow plow exit flow behavior. Lindberg, W.R., et al, [1993,eng] 48-1173
New way to beat snow and ice. Pletan, R.A., [1994,eng] 48-5303
Ninth Five-Year Plan at the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1988,jpn] 48-579
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517
Pilot program to provide pedestrian space in winter. Suzuki, A., [1989,jpn] 48-699
Piping apparatus for melting snow and ice. Ohashi, K., [1989,eng] 48-4080
Planning for snow removal. Girard, Y., [1993,eng] 48-2044
Powered snowplow. Fujii, K., et al, [1991,eng] 48-2246
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] 48-1186
Progress and future prospects for snow and cold weather operations. Terada, A., [1987,jpn] 48-269
Proposal for new winter road maintenance strategy—MINSALT project. Axelson, L., [1993,eng] 48-1189
Prospects for measures to safeguard road traffic in winter. Wada, J., [1987,jpn] 48-270
Pulsed flow control device for snow removal drains. Kato, K., et al, [1992,jpn] 48-3160
Quick connect-disconnect coupling for snow plow. Harris, G.S., [1990,eng] 48-2258
Reaching towards overcoming snow in Arai City. Goto, K., [1986,jpn] 48-25
Rear-mounted scraper. Holland, W.H., [1991,eng] 48-2227
Recent development of snow removal equipment. Matsunaga, T., [1993,eng] 48-1197
Recent trends in snow melting facilities in the Hokuriku Region. Kuwahara, T., [1989,jpn] 48-711
Remote controlled snowthrower discharge chute deflector. Wacker, R.W., [1989,eng] 48-4083
Removable snowthrower chute. Baumann, J.R., et al, [1992,eng] 48-2239
Report on historical changes of road snow removal technique in Akita Prefecture. Ito, T., et al, [1993,jpn] 48-1970
Report on the budget items for snow and cold weather operations in 1985. Fujieda, H., [1986,jpn] 48-27
Report on the budget items for snow and cold weather operations in 1987. Nakagawa, M., [1988,jpn] 48-591
Report on the budget items for snow and cold weather operations in 1988. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-716
Research developments in sophisticated automation technology for snow removal in cold regions. Sayama, S., et al, [1989,jpn] 48-676
Research on snow and roads at the Civil Engineering Institute of the Ministry of Construction. Onoda, M., [1987,jpn] 48-274
Road freezing countermeasures. Onoda, M., [1987,jpn] 48-548
Road heating in Sapporo City. Ihata, S., et al, [1989,jpn] 48-703
Road snow melting by solar energy and heat pipes. Konagai, N., [1986,jpn] 48-264
Road snow removal in Ishikawa Prefecture. Adachi, M., [1986,jpn] 48-18
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] 48-2091
Roads in snowy and cold regions and bypass-type snow melting and removal drains. Sato, K., [1988, pn 48-569
Roof snow sliding system with electric heater. Harada, H., et al, [1993,jpn] 48-1987
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025
Sangoku Pass National Highway. Abe, A., [1989,jpn] 48-678
SHRP research on snow and ice control. Minsk, L.D., [1993,eng] 48-1191
Simple compact snow melter. Saito, H., [1986,jpn] 48-26
Single stage snowthrower. Thorud, R.A., et al, [1991,eng] 48-2225
Snow and cold weather countermeasures at the Chugoku Regional Construction Bureau. Chugoku Regional Construction Bureau, [1988,jpn] 48-583
Snow and cold weather countermeasures in 1985. Okeguchi, I., [1986,jpn] 48-16
Snow and cold weather operations at the Chubu Regional Construction Bureau. Chubu Regional Construction Bureau, [1988,jpn] 48-581
Snow and cold weather operations at the Kanto Regional Construction Bureau. Kanto Regional Construction Bureau, [1988,jpn] 48-580

Snow and ice cleaving machine. Ermilov, A.B., [1992,eng] 48-5517
Snow and ice cleaving machine. Litvinenko, V.T., et al, [1992,eng] 48-5515
Snow and ice control in Japan and United States. Minsk, L.D., et al, [1993,eng] 48-2673
Snow and ice countermeasures in 1985. Murase, K., et al, [1986,jpn] 48-17
Snow and ice countermeasures on highways. Hayashi, Y., [1987,jpn] 48-277
Snow and ice melting system for road or exposed surface. Nagai, Y., et al, [1993,eng] 48-4436
Snow as an expedient sorbent for hazardous materials. Martel, C.J., et al, [1994,eng] 48-4155
Snow blower arrangement. Matsushita, Y., et al, [1992,eng] 48-4424
Snow melting apparatus. Brady, B.D., [1993,eng] 48-1655
Snow melting measures in Asahikawa City. Ito, H., et al, [1988,jpn] 48-516
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [199? eng] 48-1195
Snow plough with collector. Schrottenbacher, H., [1993,eng] 48-4426
Snow plow assembly adapted for mounting on a vehicle and method of using the same. Lilienthal, S.C., [1990,eng] 48-2181
Snow plow attachment device. Hoffman, V.L., et al, [1990,eng] 48-2259
Snow plow guards comprising pliant polymer. Winter, K.L., [1990,eng] 48-2195
Snow removal apparatus and method. Gudmundsson, B.J., [1989,eng] 48-4075
Snow removal apparatus. Cooley, J., [1992,eng] 48-2238
Snow removal apparatus. Hutson, B.L., [1992,eng] 48-2242
Snow removal drain at Kutchian on National Highway 5. Nakamura, E., [1986,jpn] 48-22
Snow removal on Gassan Mountain highway. Omura, S., et al, [1988,jpn] 48-558
Snow removal options based on inhabitant preferences. Miyakoshi, K., et al, [1993,eng] 48-2849
Snow removal plan for sidewalks and snowy roads in Shibata City. Shimotsuma, I., [1989,jpn] 48-701
Snow removal system by gravity. Kobayashi, T., [1993,jpn] 48-3172
Snow removal system using existing roadside ditches. Isobe, K., et al, [1986,jpn] 48-265
Snow retention plough. Galkin, G.I., et al, [1992,eng] 48-4069
Snow scoop helps clear rear of plow.[1994,eng] 48-5301
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles. Higashiyama, Y., et al, [1993,jpn] 48-1989
Snow to ice converter. Narita, M., [1988,jpn] 48-662
Snow transport in an open channel on mild slope configuration. Fukushima, Y., et al, [1993,jpn] 48-3188
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Snow-plough with tilting share. Kahlbacher, A., [1990,eng] 48-4422
Snow-plow. Grübler, W., et al, [1992,eng] 48-1367
Snowblade assembly. Moore, T.S., [1990,eng] 48-2180
Snowplow mounting assembly for front-end loaders. Morrell, J.R., [1989,eng] 48-1519
Snowplow truckcab ergonomics task force report. Peterson, D., [1993,eng] 48-4901
Snowstorm effects on Birmingham ambulances services, UK. Speakman, D., [1994,eng] 48-3498
Snowstorms and countermeasures in 1985. Yamanaka, Y., [1986,jpn] 48-14
Snowthrower with resilient impeller. Thorud, R.A., et al, [1990,eng] 48-2183
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] 48-4957
Study on snow-water mixture flow in snow drain. Sasaki, M., et al, [1993,jpn] 48-1973
Summary of comprehensive snow countermeasures in Toyama Prefecture. Maeda, T., [1988,jpn] 48-560
Summary of the snow and cold weather operations budget for 1989. Japan. Ministry of Construction. Road Bureau, [1989,jpn] 48-708
Surface snow removal system by snow removal pipe. Isobe, K., et al, [1986,jpn] 48-24
Tandem rotary snowplow. Takaoka City Road Maintenance Office, [1986,jpn] 48-38
Tohoku regional snow and cold weather operations. Tohoku Regional Construction Bureau, [1988,jpn] 48-578
Traffic safety and transport efficiency in winter. Hanke, H., [1993,eng] 48-1192
Trolley for transporting snow removal equipment on runways. Krivoshein, M.G., et al, [1992,eng] 48-5514
Truth about winter maintenance. Muntz, H., [1994,eng] 48-5299
Using heat from hot springs to melt snow. Kuda, T., [1988,jpn] 48-568
Viewpoint on the sidewalk snow removal plan in Takikawa City. Goto, N., [1989,jpn] 48-700
Wear element for a scraping operation. Bain, R.L., et al, [1993,eng] 48-1283
Wheeled carrier for a snow plow. Reppen, W.D., [1989,eng] 48-4078
Wind deflector plate for snow plow. Morandi, J.E., et al, [1990,eng] 48-2192
Winter at Lake Biwa. Kubota, T., [1988,jpn] 48-564
Winter cities NOW. Shiraishi, S., et al, [1989,jpn] 48-713
Winter in Shiribeshi. Higuchi, K., [1989,jpn] 48-715
Winter in Tottori. Masui, K., [1986,jpn] 48-263
Winter maintenance in Minnesota today and tomorrow. Pletan, R.A., [1993,eng] 48-1207
Winter maintenance of national roads in Norway. Leland, T., [1993,eng] 48-1190
Winter maintenance on Transport Canada airports. Anderson, F., [1993,eng] 48-5083
Winter on five mountain roads. Umejima, M., [1988,jpn] 48-664
Winter on Sengan Highway. Sato, T., [1989,jpn] 48-706
Winter on the Kurigo Ridge on National Highway 13. Ito, T., [1988,jpn] 48-589
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938
Winter road surface control in the Hokuriku Region. Sakai, T., et al, [1993,eng] 48-5082
Winter road-surface conditions and pavement problems in Hokkaido. Kawamura, K., et al, [1993,eng] 48-5084
Wiper motor driving device for automotive vehicles. Nishikawa, I., [1990,eng] 48-4958
Working unit of snow and ice cleaving machine. Ermilov, A.B., [1992,eng] 48-5516

Snow retention
Basic experiments on avalanche retarding structures. Shimomura, C., et al, [1988,jpn] 48-587
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
Development of water resources from snow dams. Tanaka, S., [1988,jpn] 48-657
Device for controlling snow movement on roofs. Haddock, R.M.M., [1993,eng] 48-1735
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Mechanism for preventing snow from sliding off roofs. Drew, D.A., [1993,eng] 48-4415
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470
Simple snow storage method. Muramatsu, K., [1988,jpn] 48-656
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408

Snow roads
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
New concept in trail grooming—"the KRC Groomer". Alger, R.G., [1994,eng] 48-3371
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] 48-1171

Snow rubber friction
See [also]: Rubber snow friction

Snow samplers
Activity of Be-7 and Pb-210 in snow samples at Terra Nova Bay-Antarctica: preliminary results. Bettoli, M.G., et al, [1993,eng] 48-4541
Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] 48-3661
Method of ecological normalization of technogenic stresses. Davydova, N.D., et al, [1990,rus] 48-2074
Vertical distribution of ^{210}Po and ^{3}H in some ice and snow cores collected in Antarctica (Terra Nova Bay Inlet). Martinotti, W., et al, [1993,eng] 48-4542

Snow slides
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Fundamental study on removal of snow by sliding from the roof of membrane structures. Yamaguchi, H., et al, [1993,jpn] 48-1994
Mechanism for preventing snow from sliding off roofs. Drew, D.A., [1993,eng] 48-4415
Poof snow sliding system with electric heater. Harada, H., et al, [1993,jpn] 48-1987
Snow adhesion to roof sheets at sub-freezing temperatures. Shimizu, M., et al, [1992,jpn] 48-3165
Snow sliding of roof snow by an automatic operation of electrically heated roof tiles. Higashiyama, Y., et al, [1993,jpn] 48-1989

Snow stabilization
Basic experiments on avalanche retarding structures. Shimomura, C., et al, [1988,jpn] 48-587
Science of snow and ice (13). Inoue, M., [1989,jpn] 48-666
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] 48-280
See [also]: Snow cover stability

Snow stratigraphy
Air gaps at the bottom of a melting two-layered snow cover. Nohguchi, Y., [1993,jpn] 48-3170
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Dyeing of snow surfaces to observe snow structure. Kovacs, A., [1993,eng] 48-3601
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653
Himalayan/Alaskan glacier accumulation and global warming. Miller, M.M., [1989,eng] 48-2662
Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] 48-3710
Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] 48-3711
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416
Portable FM-CW radar for collecting the ground truth data of snowpack. Sasaki, M., et al, [1993,eng] 48-1723
Radar soundings of the Bailey Ice Stream. Holmlund, P., [1992,eng] 48-251
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Snow slab layers and stability: a summary of some recent research and experience. Jamieson, J.B., [1994,eng] 48-3271
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] 48-2946
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832

Snow strength
Force required to shear snow from road surface aggregates. Chekan, J.P., [1990,eng] 48-3262
Impact of snow properties on the performance of rotary snowblowers. Langel, K.L., [1993,eng] 48-3286
Mechanical properties of snow. Navarre, J.P., [1993,ita] 48-1134
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Shear frame stability parameters for large-scale avalanche forecasting. Jamieson, J.B., et al, [1993,eng] 48-2865
Snow slab layers and stability: a summary of some recent research and experience. Jamieson, J.B., [1994,eng] 48-3271
Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] 48-2963
Terrain characterization for trafficability. Shoop, S.A., [1993,eng] 48-718
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] 48-117?

Snow structure
See [also]: Snow cover structure

Snow surface
Characteristics of shortwave radiation at the melting snow surface in Sapporo in 1988. Kodama, Y., et al, [1992,jpn] 48-3206
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] 48-2927
Dyeing of snow surfaces to observe structure. Kovacs, A., [1993,eng] 48-3001
Investigation of sun crust formation using field data and laboratory experiments (I). Ozeki, T., et al, [1992,jpn] 48-3203
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] 48-3421
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416
Radar backscatter measurements over Weddell Sea pack ice. Yankielun, N.E., et al, [1992,eng] 48-3774
Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337
Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770
Snow characterization for traction testing: a survey of techniques used. Shoop, S.A., et al, [1993,eng] 48-1177
See [also]: Glacier surfaces

Snow surface temperature
Atmospheric sciences on Ice Station Weddell. Andreas, E.L., et al, [1992,eng] 48-3780
Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] 48-2217
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] 48-2537
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298
Seasonal variations in brightness temperature for central Antarctica. Van der Veen, C.J., et al, [1993,eng] 48-1339

Snow surveys
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] 48-4763
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Analysis of visible and microwave satellite data for snow mapping in Alaska. Hall, D.K., et al, [1993,eng] 48-2937
Annual report—1993. National Snow and Ice Data Center. World Data Center-A for Glaciology, [1993,eng] 48-1369
Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782

Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] 48-2956
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed. et al, [1991,eng] 48-3697
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066
Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] 48-2844
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Biennial report 1991-1992. Alaska. University. Geophysical Institute, [1993,eng] 48-3122
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Characteristics of snow cover taking account of ram hardness in Hokkaido. Akitaya, E., et al, [1992,jpn] 48-3205
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] 48-3154
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820
Climatic change, snowcover and avalanches. Föhn, P.M.B., [1989,eng] 48-2569
Correction of radiometric distortions in snow cover imagery. Holecz, F., et al, [1993,eng] 48-1685
Correlation and prediction of snow water equivalent from snow sensors. McGurk, B.J., et al, [1992,eng] 48-3704
Correlation of North American snowfall with temperature changes. Groisman, P.IA., et al, [1993,eng] 48-1791
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Density of newly fallen snow along the coast of the Japan Sea. Yamada, Y., [1993,jpn] 48-4233
Deriving snow liquid water content using C-band polarimetric SAR. Shi, J.C., et al, [1993,eng] 48-1705
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] 48-1721
Detection of fluctuations in global snow cover using passive microwave remote sensing. Armstrong, R.L., [1993,eng] 48-1792
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] 48-2927
Direct indicator of hydrous content in deposited snow. Satoh, K., et al, [1993,jpn] 48-1966
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340
Dust and marine aerosols in Central Asian glaciers. Wake, C.P., et al, [1993,eng] 48-2801
Effect of land-cover type and season in microwave remote sensing of snow. Jääskeläinen, V., et al, [1993,eng] 48-1707
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] 48-1729
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Estimating localized SWE on the Yellowstone northern range. Farnes, P.E., et al, [1993,eng] 48-2928
Estimating snow water equivalent using a GIS. McManamon, A., et al, [1993,eng] 48-684
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] 48-2945
Estimation method of newly fallen snow depth. Yamada, Y., [1993,jpn] 48-4234
Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] 48-2773
Evaluation of the data measured by MSR related to snowpack parameter. Suzuki, M., et al, [1990,jpn] 48-4875
First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] 48-2017
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Forecasting snowmelt volume from remote sensing data. Mushiake, N., et al, [1993,eng] 48-1681
Forecasting water supply from snowpack. Johnson, D.E., [1993,eng] 48-682
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] 48-4109
Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] 48-2932
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Global snow cover monitoring: an update. Robinson, D.A., et al, [1993,eng] 48-1101
Gridded snow water equivalent estimation using ground-based and airborne snow data. McManamon, A., et al, [1993,eng] 48-2930
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
History of snow sciences in North America. Mergen, B., [1993,eng] 48-2942
Hydro-meteorological automatic observation system and research plan. Ishikawa, N., et al, [1992,jpn] 48-3218
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526
Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] 48-1567
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] 48-2940
Improving methods for measurement and estimation of snow storage in alpine watersheds. Elder, K., et al, [1990,eng] 48-1578
Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Interactive calibration for the SSARR watershed model. Rockwood, D.M., et al, [1993,eng] 48-2954
International classification of seasonal snow on the ground. Colbeck, S.C., et al, [1993,ita] 48-1135
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
Investigation on application of grey cognate analysis for snowmelt runoff forecast. Lan, Y.C., [1993,chi] 48-4577
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296
Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] 48-3710
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al, [1990,eng] 48-1580
Mapping of snow cover by ERS-1 SAR. Solberg, R., [1993,eng] 48-1717
Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] 48-2933
Measurements during rain on snow. Conway, H., et al, [1994,eng] 48-3273
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] 48-2767
Mesh data sets of snow cover of the Northern Hemisphere. Masuda, K., et al, [1990,jpn] 48-3417
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480
Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] 48-3711
Modeling and observation of polarimetric SAR response to dry snow. Shi, J.C., et al, [1993,eng] 48-1706
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] 48-1788
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data. Wiesmann, A., et al, [1994,eng] 48-3469
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
North American snow cover variability, 1972-1993. Frei, A., et al, [1993,eng] 48-2926
Operational snow cover mapping by satellites and real time runoff forecasts. Seidel, K., et al, [1993,eng] 48-2779
Overview of research on snow in Alaska. Benson, C.S., [1993,eng] 48-1801
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Passive-microwave radiometry of multilayer snow surfaces. Singh, R.P., et al, [1993,eng] 48-3416
Permeability measurements on new and equitemperature snow. Sommerfeld, R.A., et al, [1993,eng] 48-2053
Point modeling of snow cover water equivalent. Rohrer, M.B., et al, [1990,eng] 48-1583
Portable FM-CW radar for collecting the ground truth data of snowpack. Sasaki, M., et al, [1993,eng] 48-1723
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993, [1993,eng] 48-679
Proceedings. International Symposium on Snow and Snow-related Problems, Nagaoka, Japan, Sep. 14-18, 1992, [1993,eng] 48-2817
Radiometry of snow cover structure. Armstrong, R.L., et al, [1993,eng] 48-1318
Recent developments of the geographic snow information system. Granberg, H.B., et al, [1993,eng] 48-756
Recent observed trends and modelled interannual variability in Canadian snow cover. Brown, R.D., et al, [1993,eng] 48-2968
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] 48-2846
Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] 48-4123
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] 48-4708
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Retrieval of snow parameters by iterative inversion of a neural network. Davis, D.T., et al, [1993,eng] 48-1228
Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] 48-1582
SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
Satellite measurements for studying the cryosphere. Rott, H., [1990,ger] 48-3126
Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] 48-1577
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] 48-325
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] 48-324
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] 48-323
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] 48-322
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] 48-326
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] 48-321
Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] 48-2973
Snow and glacier hydrology. Young, G.J., ed, [1993,eng] 48-2766
Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] 48-1778
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] 48-1579
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Snow and permafrost in the Tian Shan Mountains. Hu, R.J., et al, [1993,eng] 48-5215
Snow area detection by using AVHRR/NOAA. Kazama, S., et al, [1993,eng] 48-1724
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] 48-1312
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] 48-1718
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] 48-1803
Snow cover variability in the Great Plains of the United States: 1910-1988. Hughes, M.G., et al, [1993,eng] 48-2925
Snow depth in forests with various openness grades of canopies. Goto, Y., et al, [1993,jpn] 48-3180
Snow depth mapping in Mongolia. Morton, D.C., et al, [1993,eng] 48-2967
Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304
Snow hydrology processes and remote sensing. Rango, A., [1993,eng] 48-985
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] 48-5136
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] 48-1796
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Snow research at Lanzhou Institute of Glaciology and Geocryology. Yang, D.Q., [1993,eng] 48-1800
Snow type distribution in the coldest season in Japan. Daimaru, H., et al, [1993,jpn] 48-3181

Snow watch '92. Workshop on Cryospheric Data Rescue and Access, Niagara-on- the-Lake, Ontario, Canada, Mar. 29-Apr. 1, 1992. [1993,eng] 48-1787
Snow water equivalent estimates from spatial modeling of data. Carroll, S.S., et al, [1993,eng] 48-2931
Snow wetness retrieval algorithm for SAR. Shi, J.C., et al, [1992,eng] 48-3284
Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. Powell, D.R., et al, [1993,jpn] 48-1965
Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] 48-3550
Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] 48-2775
Snowmelt runoff forecasting. Pangburn, T., et al, [1993,eng] 48-685
Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] 48-1596
Snowmelt runoff model using remote sensing. Koike, T., [1990,jpn] 48-3418
Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] 48-2946
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] 48-1799
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Spatial variations of glacier mass input in the Langtang Valley, Nepal Himalayas. Shiraiwa, T., et al, [1993,eng] 48-2792
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] 48-3712
Study of cloud and snow cover over Kinki district, west Japan. Inoue, J., [1990,eng] 48-4873
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] 48-2363
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1990,eng] 48-4876
Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1998,eng] 48-4869
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] 48-3933
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4373
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps. Dray, M., et al, [1990,fre] 48-1591
Use of fractal geometry in modelling intercepted snow accumulation and sublimation. Pomeroy, J.W., et al, [1993,eng] 48-2921
Water equivalent of snow and backscattering at C-band. Kondoh, A., et al, [1993,eng] 48-1708
Water resources, snow and ice. Haefner, H., et al, [1991,eng] 48-4868
Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4006
Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-3264
Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4127
Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4126

Snow temperature

Application of BTS-measurements for modelling mountain permafrost distribution. Hoelzle, M., et al, [1993,eng] 48-399
Depth dependence of snow brightness temperature on sea ice. Sasaki, Y., et al, [1993,eng] 48-1683
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Firn temperature measurements in Greenland. Laternser, M., [1994,eng] 48-3263
Glaciological fieldwork on the Ronne Ice Shelf within the ERS-1 field campaign 1992. Sturm, K., et al, [1992,eng] 48-246
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Growth rates of depth hoar (II). Fukuzawa, T., et al, [1992,jpn] 48-3204
Ice thermodynamics at Ice Station Weddell 1. Part 2. Ackley, S.F., et al, [1992,eng] 48-3777
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Science of snow and ice (11). Inoue, M., [1988,jpn] 48-574
Snow surface temperature measurements by infrared scanner. Moritz, E., [1986,ger] 48-618
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] 48-2870
Winter testing for permafrost identification. Guglielmin, M., et al. [1993,ita] 48-1133

Snow thermal properties

Development and regional implementation of snow electric power generation systems. Tsushima, K., [1986,jpn] 48-29
Economics of snow use (storing vegetables in snow). Hatori, A., [1988,jpn] 48-655
Groundwater temperatures during the winter in a forested basin. Calkins, D.J., [1993,eng] 48-2923
Hybrid generator with deposited snow cooling. Satoh, K., [1993,jpn] 48-1981
Regional implementation and industrial use of snow. Yamamura, E., [1986,jpn] 48-30
Science of snow and ice (6). Inoue, M., [1986,jpn] 48-254
Simple snow storage method. Muramatsu, K., [1988,jpn] 48-656
Snow surface temperature measurements by infrared scanner. Moritz, E., [1986,ger] 48-618
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] 48-2870

Snow tunnels

Stress analysis of a proposed tunnel under the South Pole skiway. Sodhi, D.S., et al, [1993,eng] 48-2963

Snow vehicles

Adjustable steering post for snowmobiles. Zulawski, D.P., [1991,eng] 48-2231
Apparatus in a turning-track track-laying vehicle. Pohjola, J., [1990,eng] 48-2172
Belt-type caterpillar for track-laying vehicles and snowmobiles. Oertgen, E., et al, [1991,eng] 48-2226
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV). Richmond, P.W., et al, [1994,eng] 48-3095
Engine mounting arrangement and drive mechanism for small snowmobiles. Isobe, T., et al, [1991,eng] 48-2223
Flexible snowmobile cleat. Simmons, V.M., [1990,eng] 48-2271
Frame and body construction for small snowmobile. Isobe, T., et al, [1990,eng] 48-2189
Frame construction for small snowmobile. Sugita, M., et al, [1990,eng] 48-2188
Method and apparatus for conserving battery power in a snowmobile electrical system. Chasteen, R.E., et al, [1991,eng] 48-2251
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] 48-1162
Prediction of track performance on deep snowpack. Irwin, G.J., et al, [1993,eng] 48-758
Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991, [1993,eng] 48-1160
Rotary tool for sharpening studs in snowmobile treads. Cooney, K.G., [1991,eng] 48-2230
Snowmobile. Igarashi, Y., et al, [1989,eng] 48-4087
Snowmobile. Smith, M.L., [1990,eng] 48-2179
Track for snow vehicle. Nakano, T., [1990,eng] 48-2269
Track-driven forestry tractor. Minchenko, M.E., [1992,eng] 48-4071
Traction stud. Musselman, J.R., et al, [1993,eng] 48-4366
U.S. Army's Bv 206 oversnow vehicle. Lundberg, U., [1993,eng] 48-1180
Ultra-track: the ultimate all-terrain attachable tracks. Jacobson, R., [1993,eng] 48-1179
Unmanned vehicle system mobility in cold regions. Diemand, D., [1994,eng] 48-5416

Snow water content

Deriving snow liquid water content using C-band polarimetric SAR. Shi, J.C., et al, [1993,eng] 48-1705
Direct indicator of hydrous content in deposited snow. Satoh, K., et al, [1993,jpn] 48-1966
Distribution of snowpack in a mountain basin and the effect of underlying surface factors on it. Severskiĭ, S.I., [1992,rus] 48-4466
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] 48-1729
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine. Manukalo, V.A., et al, [1993,rus] 48-2075
Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs. Kharchenko, P.IU., et al, [1992,rus] 48-1949
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects. Okinshevich, V.V., [1990,rus] 48-306
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Method of calculating annual runoff in terms of the seasonal total. Lobanov, V.A., et al, [1992,rus] 48-185
Prediction of snow storms and snow accretion on power lines. Sasyo, Y., et al, [1993,jpn] 48-3168
Regional observations of snow cover in Hokkaido, February 1992. Ishii, Y., et al, [1992,jpn] 48-3153
Report of pit-wall observations of snow cover in Sapporo 1991-92. Akitaya, E., et al, [1992,jpn] 48-3152
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow and soil moisture-reserve measuring device. Abelentsev, V.V., et al, [1992,eng] 48-4072
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snow wetness retrieval algorithm for SAR. Shi, J.C., et al, [1992,eng] 48-3284
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] 48-3933

Snow water equivalent

Annual snow accumulation in the Langtang region. Steinegger, U., et al, [1993,eng] 48-2782
Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] 48-2956
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] 48-4713
Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924
Auger for snowpack water equivalent determination. Wiesinger, T., [1991,ger] 48-3661
Characteristics of snow cover taking account of ram hardness in Hokkaido. Akitaya, E., et al, [1992,jpn] 48-3205
Correlation and prediction of snow water equivalent from snow sensors. McGurk, B.J., et al, [1992,eng] 48-3704
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340
Distribution of snowpack in a mountain basin and the effect of underlying surface factors on it. Severskiĭ, S.I., [1992,rus] 48-4466
Estimated seasonal snow cover and snowfall in Japan. Nakamura, T., et al, [1993,eng] 48-2848
Estimating localized SWE on the Yellowstone northern range. Farnes, P.E., et al, [1993,eng] 48-2928
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Estimating snow water equivalent using a GIS. McManamon, A., et al, [1993,eng] 48-684
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] 48-2945
Evaluation of the data measured by MSR related to snowpack parameter. Suzuki, M., et al, [1990,jpn] 48-4875
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] 48-4109
Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] 48-2932
Gridded snow water equivalent estimation using ground-based and airborne snow data. McManamon, A., et al, [1993,eng] 48-2930
Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] 48-2940
Improving methods for measurement and estimation of snow storage in alpine watersheds. Elder, K., et al, [1990,eng] 48-1578
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] 48-2933
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Microwave backscattering characteristics of snow. Fukami, K., et al, [1993,eng] 48-1711
Modeling and observation of polarimetric SAR response to dry snow. Shi, J.C., et al, [1993,eng] 48-1706
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] 48-4103
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Passive-microwave remote sensing of snow. Koike, T., et al, [1993,eng] 48-2871
Point modeling of snow cover water equivalent. Rohrer, M.B., et al, [1990,eng] 48-1583
Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] 48-1312
Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009

Snow hydrology. Nakatsugawa, M., et al, [1994,eng] 48-4931
Snow pattern accumulation patterns in Antarctica. Isaksson, E., et al, [1994,eng] 48-5176
Snow water equivalent estimates from spatial modeling of data. Carroll, S.S., et al, [1993,eng] 48-2931
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332
Water equivalent of snow and backscattering at C-band. Kondoh, A., et al, [1993,eng] 48-1708
Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4006
Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-3264
Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4127
Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] 48-4126

Snow wood friction
See [also]: Wood snow friction

Snowdrifts
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] 48-2844
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Cost analysis of snow control structures in Ontario. Perchanok, M.S., et al, [1993,eng] 48-2965
Development of a snow removal truck to manage high snowbanks. Nakamura, O., et al, [1986,jpn] 48-266
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978. Jordan Marsh Company. Central Service Facility, [1978,eng] 48-1871
Experimental study of snow drifting on two-level flat roofs. Suzuya, J., et al, [1993,jpn] 48-1996
Experiments of snow drift around the snow fences with model snow. Shirono, K., [1993,jpn] 48-1971
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Investigation of material and geometric characteristics of highway snow fence. Perchanok, M.S., [1993,eng] 48-4005
Loading, transport, and removal of roadside snowbanks. Watanabe, T., [1986,jpn] 48-260
Measurements of drifting snow particles. Kimura, T., [1991,jpn] 48-3422
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] 48-3421
New guidelines for blowing snow control. Tabler, R.D., [1993,eng] 48-1194
Numerical simulation of snowdrift. Uematsu, T., [1992,jpn] 48-3167
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] 48-2841
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] 48-325
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] 48-324
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] 48-323
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] 48-322
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] 48-326
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] 48-321
Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-402o
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Snowdrift countermeasures. Sato, S., [1987,jpn] 48-546
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938
Snowdrifting simulation around a Davis Station workshop. Smedley, D.J., et al, [1993,eng] 48-2911
Snowdrifts and the differential settlement of buildings (1). Yamanashi, M., et al, [1993,jpn] 48-2000
Snowdrifts and the differential settlement of buildings (2). Hanauki, T., et al, [1993,jpn] 48-2001
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Study on blowing snow countermeasures and traffic control. Togashi, Y., et al, [1986,jpn] 48-258
Study on countermeasures for snowdrifts and drifting snow on National Highway 113. Tamaki, M., [1986,jpn] 48-259
Study on snowdrift countermeasures in the Shonai region. Sawada, K., et al, [1987,jpn] 48-545
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] 48-1786

Snowfall
Analysis of snowfall characteristics and various snow disasters in urban area. Suzuki, T., et al, [1993,jpn] 48-2003
Antarctic climate of the UKMO Unified Model. Connolley, W.M., et al, [1994,eng] 48-3041
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Avalanches in the Teton Range, summer 1993. Woodmencey, J., [1993,eng] 48-1782
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Chemical compositions of solid precipitation and snow cover in Sapporo, 1991-92. Ishii, Y., et al, [1992,jpn] 48-3154
Classification of the various types and characteristics of snowfall sensor. Tamura, M., [1993,jpn] 48-3182
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps). Todaro, C., [1993,ita] 48-4114
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Cloudwater droplet chemistry of Mt. Sonnblick, Austria. Brantner, B., et al, [1994,eng] 48-4805
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] 48-2360
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] 48-1853
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Density of newly fallen snow along the coast of the Japan Sea. Yamada, Y., [1993,jpn] 48-4233
Development of a method for predicting snowfall intensity and compacted snow on roads. Funada, H., et al, [1993,jpn] 48-1852
Distributed numerical weather prediction: what lies beyond television's "Volksmeteorologie". Reiter, E.R., [1990,eng] 48-3127
Dye 3 air and snow chemistry, pt.1. Davidson, C.I., et al, [1993,eng] 48-3885
Estimation of monthly precipitation by geographical factors and meteorological variables. Yamada, K., [1990,eng] 48-1588
Evaluation of precipitation gauges for measuring precipitation on mountainous watersheds. Hanson, C.L., [1990,eng] 48-1568
Examples of radar observations of snowfall in Hokuriku. Yoshino, F., et al, [1989,jpn] 48-667
Forecasting of direct-action avalanches in terms of snow accumulation rates. Endo, Y., [1993,jpn] 48-3175
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] 48-3163
Forecasting system for snow and freezing. Masuda, Y., et al, [1986,jpn] 48-20
GCM study of antarctic glaciation. Oglesby, R.J., [1989,eng] 48-1659
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice crystal formation in cloud seeding processes. Chai, S.K., et al, [1993,eng] 48-1742
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Improving snow data.[1994,eng] 48-3238
Influence of North American snow cover on climate. Ni Chaoimh, U.M., [1994,eng] 48-3553
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] 48-4235
Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] 48-2920
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] 48-2723
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland. Johnson, R.C., et al, [1990,eng] 48-1569
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Ninth Five-Year Plan at the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1988,jpn] 48-579
North American snow cover variability, 1972-1993. Frei, A., et al, [1993,eng] 48-2926
Northernmost winter roads. Takebayashi, T., et al, [1987,jpn] 48-282
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] 48-200
Precipitation intensity and type determined by light attenuation technique. Lundberg, A., et al, [1994,eng] 48-3963
Prediction of daily snowfall depth obtained from neuro computing method. Amenomori, M., et al, [1993,jpn] 48-3179
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] 48-2929
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Reduction of terrestrial gamma rays by snow cover. Sakamoto, R., et al, [1990,jpn] 48-3675
Relationship between seasonal snow cover in Japan and recent climatic change. Nishimori, M., et al, [1993,eng] 48-2846
Seasonal snowfall statistics for selected stations.[1988,eng] 48-3495
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York. Sykes, R.B., [1993,eng] 48-2959
Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] 48-2973
Snow and cold weather countermeasures in 1985. Okeguchi, I., [1986,jpn] 48-16
Snow and ice countermeasures in 1985. Murase, K., et al, [1986,jpn] 48-17
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Snow cover variability in the Great Plains of the United States: 1910-1988. Hughes, M.G., et al, [1993,eng] 48-2925
Snow removal on Gassan Mountain highway. Omura, S., et al, [1988,jpn] 48-558
Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. Powell, D.R., et al, [1993,jpn] 48-1965
Snowfall climatology for the Laurentian Great Lakes. Norton, D.C., et al, [1993,eng] 48-1602
Snowfall forecasting system in Sapporo City. Shibuya, K., [1989,jpn] 48-670
Snowfall in the lee of Lakes Erie and Ontario. Leathers, D.J., et al, [1993,eng] 48-2960
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Snowfall rate and supercooled liquid water content. Adams, W.M., et al, [1993,eng] 48-1725
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Snowstorms and countermeasures in 1985. Yamanaka, Y., [1986,jpn] 48-14
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
Snowy year from coast to coast. Ludlum, D.M., [1994,eng] 48-3324
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] 48-4754
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Study on acid snow. Araki, K., et al, [1987,jpn] 48-550
Study on winter road management methods using forecast reports. Wada, J., et al, [1989,jpn] 48-668
Surface observation climatic summaries for Ellsworth AFB, South Dakota.[1991,eng] 48-4742
Surface observation climatic summaries for Fairbanks IAP, Alaska.[1991,eng] 48-4722
Surface observation climatic summaries for Fort Devens Ain, Massachusetts.[1991,eng] 48-4720
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas.[1991,eng] 48-4723
Surface observation climatic summaries for Fulda AAF, Germany.[1991,eng] 48-4743
Surface observation climatic summaries for Illesheim, Germany.[1991,eng] 48-4739
Surface observation climatic summaries for Kunsan AB, Korea.[1991,eng] 48-4738
Surface observation climatic summaries for McGuire AFB, New Jersey.[1991,eng] 48-4721
Surface observation climatic summaries for Wright-Patterson AFB, Ohio.[1991,eng] 48-3671
Surface observation climatic summaries (SOCS) for Hanau AAF, Germany.[1992,eng] 48-4746
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon.[1991,eng] 48-3669
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835
"True snowfall": an evaluation of the double fence intercomparison reference gauge. Yang, D., et al, [1993,eng] 48-2934
Typification of winters according to the snow accumulation regime in the example of Zailiyskiy Alatau. Girovka, N.N., [1992,rus] 48-4454
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] 48-313
Weather extremes. Schmidli, R.J., [1991,eng] 48-3708
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] 48-256
Winter on the Kurigo Ridge on National Highway 13. Ito, T., [1988,jpn] 48-589
Winter road surface control in the Hokuriku Region. Sakai, T., et al, [1993,eng] 48-5082
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] 48-5116

Snowflakes

Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] **48-2833**

Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] **48-2958**

Aggregation of snow crystals in the early growth stage. Takahashi, T., et al, [1992,jpn] **48-3202**

Charging of snow particles in blizzard. Shio, H., [1991,eng] **48-3681**

Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] **48-2820**

Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] **48-3784**

Snowmelt

Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] **48-2794**

Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] **48-961**

Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] **48-2341**

Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] **48-2593**

Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] **48-2956**

Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] **48-137**

Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] **48-285**

Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] **48-2066**

Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] **48-944**

Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] **48-4713**

Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] **48-1344**

Artificial snow and the effect of snowmelt on trees. Devarennes, G., [1993,fre] **48-2922**

Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] **48-1946**

Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] **48-3510**

Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] **48-4120**

Calculation of snowmelt. Shutov, V.A., [1993,eng] **48-[illegible]6**

Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] **48-2947**

Chemical composition of snow cover on the western Swiss Alps. Parriaux, A., et al, [1990,eng] **48-1594**

Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] **48-1858**

Climate signals from SSM/I observations of marginal ice shelves. Ridley, J.K., [1993,eng] **48-1321**

Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] **48-2863**

Composition of melt water from urban snow. A laboratory study. Viklander, M., et al, [1994,eng] **48-3968**

Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] **48-695**

Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] **48-2768**

Development of water resources from snow dams. Tanaka, S., [1988,jpn] **48-657**

Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] **48-2957**

Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] **48-2019**

Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] **48-3504**

Elution of ions from melting snow: chromatographic versus metamorphic mechanisms. Cragin, J.H., et al, [1993,eng] **48-1006**

Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] **48-2827**

Entering the era of distributed snow models. Kirnbauer, R., et al, [1994,eng] **48-4706**

Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] **48-4021**

Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] **48-3621**

Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] **48-2366**

Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] **48-4405**

Estimating ice jams using meteorological parameters. Galbraith, P.W., [1981,eng] **48-4024**

Estimating snow water equivalent using a GIS. McManamon, A., et al, [1993,eng] **48-684**

Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine. Manukalo, V.A., et al, [1993,rus] **48-2075**

Estimating the weight of a snow cover using only meteorological factors. Shinojima, K., et al, [1993,eng] **48-2850**

Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] **48-2773**

Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] **48-3141**

Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] **48-3622**

Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] **48-2674**

Forecasting snowmelt volume from remote sensing data. Mushiake, N., et al, [1993,eng] **48-1681**

Forecasting water supply from snowpack. Johnson, D.E., [1993,eng] **48-682**

Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] **48-4449**

Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] **48-3836**

Geometry of patchy snowcovers. Shook, K., et al, [1993,eng] **48-2932**

Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] **48-2783**

Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] **48-3255**

Gridded snow water equivalent estimation using ground-based and airborne snow data. McManamon, A., et al, [1993,eng] **48-2930**

Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] **48-1599**

Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] **48-2378**

Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] **48-398**

Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] **48-3531**

Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] **48-3526**

Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado. Peters, N.E., et al, [1993,eng] **48-2962**

Hydrograph forecasts for a mountain river in a stochastic form. Mukhin, V.M., [1992,rus] **48-1948**

Hydrologic modelling of flooding and runoff. Feldman, A.D., et al, [1993,eng] **48-680**

Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] **48-2054**

Hydrology in mountainous regions. I. Hydrological measurements; the water cycle. Lang, H., ed, et al, [1990,eng] **48-1567**

Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] **48-2949**

Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] **48-1585**

Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] **48-3007**

Improved snow hydrology for General Circulation Models—pt.1. Marshall, S., et al, [1994,eng] **48-5369**

Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] **48-2940**

Improving methods for measurement and estimation of snow storage in alpine watersheds. Elder, K., et al, [1990,eng] **48-1578**

Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] **48-433**

Interactive calibration for the SSARR watershed model. Rockwood, D.M., et al, [1993,eng] **48-2954**

Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] **48-3659**

Investigation on application of grey cognate analysis for snowmelt runoff forecast. Lan, Y.C., [1993,chi] **48-4577**

Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] **48-4973**

Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] **48-4981**

Joint 50th Eastern and 61st Western Snow Conference, 1993. Eastern Snow Conference and Western Snow Conference, [1993,eng] **48-2920**

Long range forecast of spring inflow of water into the Chirkuoksk and Vilyuy reservoirs. Kharchenko, P.IU., et al, [1992,rus] **48-1949**

Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] **48-4710**

Lysimetric snow pillow station at Kühtai/Tyrol. Kirnbauer, R., et al, [1990,eng] **48-1580**

Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] **48-1610**

Means of optimizing the water regime of soils in the steppe landscapes of Siberia. Kochurov, B.I., [1990,rus] **48-2073**

Measurement of the water equivalent of snow on the ground. Schmidlin, T.W., et al, [1993,eng] **48-2933**

Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] **48-2767**

Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] **48-986**

Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] **48-2548**

Method of calculating annual runoff in terms of the seasonal total. Lobanov, V.A., et al, [1992,rus] **48-185**

Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] **48-5126**

Model accuracy in snowmelt-runoff forecasts extending from 1 to 20 days. Rango, A., et al, [1994,eng] **48-5157**

Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] **48-4251**

Modeling for water supply forecasting in the West. Garen, D.C., [1993,eng] **48-688**

Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] **48-2969**

Modeling surface flow hydrography of a spring flood in small rivers. Vodogretskii, V.E., et al, [1992,rus] **48-184**

Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] **48-5297**

Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] **48-1788**

Mudflood activity in the foothills of Central Asia. Salikhova, D.Kh., et al, [1992,eng] **48-4408**

National Weather Service's transition to hydrologic modeling on scientific work stations. Farnsworth, R.K., et al, [1993,eng] **48-681**

Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] **48-2034**

Numerical investigation of infiltration into frozen soil. Tao, Y.X., et al, [1993,eng] **48-888**

Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] **48-2558**

Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] **48-683**

Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] **48-4711**

Operational snow cover mapping by satellites and real time runoff forecasts. Seidel, K., et al, [1993,eng] **48-2779**

Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] **48-2414**

Oxygen-18 of snow meltwater and snow cover. Suzuki, K., [1993,jpn] **48-3187**

Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] **48-2158**

Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] **48-3507**

Point modeling of snow cover water equivalent. Rohrer, M.B., et al, [1990,eng] **48-1583**

Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] **48-2335**

Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993, [1993,eng] **48-679**

Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] **48-1328**

Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] **48-63**

Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] **48-1155**

Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] **48-4708**

Rock moisture data from Livingston I. Hall, K., [1993,eng] **48-5051**

Role of glacier and snow cover melting in runoff variations. Pertziger, F.I., [1990,eng] **48-1582**

Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] **48-2778**

Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] **48-490**

Role of snowmelt in generating streamflow during spring in east Nepal. Kattelmann, R.C., [1993,eng] **48-2777**

Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] **48-4707**

Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] **48-1159**

Runoff modelling in Latvia. Krams, M., et al, [1993,eng] **48-2889**

Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] **48-1577**

Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] **48-2295**

Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] **48-1752**

Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] **48-2973**

Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] **48-3502**

Shrub ecology in an alpine snow patch. Kudo, G., [1993,eng] **48-2348**

Simulation of daily runoff in the Urumqi River basin with the improved tank model. Zhang, G.W., et al, [1990,eng] **48-1598**

Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] **48-2789**

Snow and glacier hydrology. Young, G.J., ed, [1993,eng] **48-2766**

Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] **48-1579**

Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] **48-2771**

Snow cover distribution as climatic change indicator. Goodison, B.E., et al, [1993,eng] **48-1312**

Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] **48-4447**

Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snow hydrology. Nakatsugawa, M., et al, [1994,eng] 48-4931
Snow water equivalent estimates from spatial modeling of data. Carroll, S.S., et al, [1993,eng] 48-2931
Snowmelt and water quality changes in small rivers. Symader, W., et al, [1993,eng] 48-1776
Snowmelt assessment in a complex system of reservoirs (Comunidad de Madrid). Cubillo, F., [1990,eng] 48-1595
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Snowmelt in medium-high mountains and recharging of underlying karst. Chauve, P., et al, [1990,fre] 48-1574
Snowmelt over permafrost area in the arctic Alaska. Kodama, Y., et al, [1990,eng] 48-4670
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] 48-2775
Snowmelt runoff forecasting. Pangburn, T., et al, [1993,eng] 48-685
Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] 48-1596
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Snowmelt runoff model using remote sensing. Koike, T., [1990,jpn] 48-3418
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] 48-2950
Soil water content regulating procedure. Bagirov, M.N., et al, [1992,eng] 48-4068
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] 48-2790
Studies of ice-snow melt debris flows in the western Tian Shan Mountains, China. Wei, W.S., et al, [1992,eng] 48-4410
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Temporal changes in chemical stratigraphy of snow cover. Goto-Azuma, K., et al, [1993,eng] 48-2832
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Terrain and geochemical aspects of the interaction between natural and anthropogenic factors. Khrustaleva, M.A., [1990,rus] 48-2072
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] 48-410
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
Water balance of Kyrgyzstan. Ergeshev, A.A., et al, [1992,rus] 48-187
Watershed modeling—spatial partitioning using GIS. Jeton, A.E., et al, [1993,eng] 48-687
See [also]: Meltwater; Snow melting

Snowmobiles
See [also]: Snow vehicles

Snowplows
See [also]: Snow removal

Snowsheds
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] 48-552
Pedestrian space in snowy country. Nishiue, H., [1986,jpn] 48-28
Snow engineering for roads: about snow avalanches and drifting snow.[1994,eng] 48-5433
Vault structure for protection of roadways against snow. Plantier, J.L., [1989,eng] 48-4076
Winter on five mountain roads. Umejima, M., [1988,jpn] 48-664

Snowstorms
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Avalanches generated by snow and thunderstorms in Switzerland. Kerkmann, J., et al, [1993,ita] 48-1132
Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] 48-3497
Brief bibliography—snowstorms. National Oceanic and Atmospheric Administration, [1990,eng] 48-2409
Bulletin on road snow removal in the 1986 snowstorms. Fujieda, H., [1986,jpn] 48-39
Cape Cod snowstorm. Ruminski, M., [1994,eng] 48-2761
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] 48-2842
Changes and future topics for snow and cold weather operations in Aomori Prefecture. Sato, N., [1987,jpn] 48-272
Charging of snow particles in blizzard. Shio, H., [1991,eng] 48-3681
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] 48-1853
Deaths and injuries from snow accidents in Japan. Numano, N., [1993,jpn] 48-3185
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Distributed numerical weather prediction: what lies beyond television's "Volksmeteorologie". Reiter, E.R., [1990,eng] 48-3127
Emergency readiness in heavy snow region. Part 1. Yamagata, T., et al, [1993,jpn] 48-1978
Emergency readiness in heavy snow region. Part 2. Takahashi, A., et al, [1993,jpn] 48-1979
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978. Jordan Marsh Company. Central Service Facility, [1978,eng] 48-1871
Examples of radar observations of snowfall in Hokuriku. Yoshino, F., et al, [1989,jpn] 48-667
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] 48-3163
Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2368
Ice loads on overhead power lines in Germany and their impact on reliability and design. Kiessling, F., et al, [1993,eng] 48-829
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] 48-854
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] 48-1183
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F., et al, [1993,eng] 48-1095
Looking back on the snowstorms of 1986. Endo, I., et al, [1986,jpn] 48-15
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] 48-834
Movement and deposition of snow particles in snow storm. Kobayashi, S., [1991,jpn] 48-3421
Planning for snow removal. Girard, Y., [1993,eng] 48-2044
Prediction of snow storms and snow accretion on power lines. Sasyo, Y., et al, [1993,jpn] 48-3168
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] 48-2929
Recent trends in research on snow and ice disaster prevention. Nakamura, T., [1987,jpn] 48-275
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York. Sykes, R.B., [1993,eng] 48-2959
Snow and cold weather countermeasures in 1985. Okeguchi, I., [1986,jpn] 48-16
Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] 48-4874
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Snowfall forecasting system in Sapporo City. Shibuya, K., [1989,jpn] 48-670
Snowfall in the lee of Lakes Erie and Ontario. Leathers, D.J., et al, [1993,eng] 48-2960
Snowstorm effects on Birmingham ambulances services, UK. Speakman, D., [1994,eng] 48-3498
Snowstorms and countermeasures in 1985. Yamanaka, Y., [1986,jpn] 48-14
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
Snowy year from coast to coast. Ludlum, D.M., [1994,eng] 48-3324
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Weather extremes. Schmidli, R.J., [1991,eng] 48-3708
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] 48-256

Societies
See [also]: Organizations

Soil aggregates
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Winter-associated changes in dry soil aggregation. Layton, J.B., [1993,eng] 48-3534
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240

Soil air interface
Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
Borehole temperature equilibrium in permafrost. Wang, B.L., [1993,chi] 48-4585
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Deaerator use in soil tests. Deng, Y.S., et al, [1993,chi] 48-1458
Development condition of alpine permafrost in the Tianshan Mts., China. Qiu, G.Q., [1993,eng] 48-449
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Effect of snow cover on the thermal characteristics of the surface layer. Takeuchi, Y., et al, [1992,jpn] 48-3208
Evaluation of evaporation models for alpine tundra, British Columbia, Canada. Saunders, I.R., et al, [1990,eng] 48-1571
Evaporation from alpine tundra in the Canadian Cordillera. Bailey, W.G., et al, [1990,eng] 48-1570
Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] 48-3715
Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
Optimal thermal melioration of soil in climatic conditions of the North. Romanov, P.G., et al, [1992,rus] 48-4791
Permafrost and changing climate. Nelson, F.E., et al, [1993,eng] 48-5181
Permafrost thermal regime near the Spanish Antarctic Station. Ramos, M., [1993,eng] 48-5232
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Recent permafrost degradation along the Qinghai-Tibet Highway. Cheng, G.D., et al, [1993,eng] 48-5183
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691

Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Stability of permafrost and gas hydrates subject to global warming. Englezos, P., et al, [1993,eng] 48-4359
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska. Bilello, M.A., et al, [1993,eng] 48-882
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] 48-4374
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Soil analysis

Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] 48-798
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Grinding of frozen soil samples. Esala, M.J., [1994,eng] 48-5389
Holocene glacier variations in the Tian Shan. Solomina, O.N., et al, [1994,eng] 48-4943
Introduction of application methods for CT in frozen soil experimental research. Pu, Y.B., [1993,eng] 48-5231
Introduction of applying method for CT in frozen soil experiment research. Pu, Y.B., [1993,chi] 48-1459
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] 48-5414
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
Nitrogen uptake in arctic plants. Atkin, O.K., et al, [1993,eng] 48-2374
Northern Asia cryolithozone evolution of Late Quaternary. Vasil'chuk, IU.K., [1993,eng] 48-535
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-1092
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] 48-5415
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Soil sampling for volatile organic compounds. Hewitt, A.D., [1993,eng] 48-1955
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
Vapor fortification in soil sampling for contaminants. Hewitt, A.D., [1993,eng] 48-1956
Vapor-fortified QA/QC soil subsamples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-3266

Soil cement

Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash. Chun, B.S., et al, [1993,eng] 48-3117
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] 48-496
Method of treating backfill. Suzuki, T., [1990,eng] 48-2164
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] 48-1976

Soil chemistry

Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] 48-1526
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] 48-376
Applying field-expedient bioreactors and landfarming in Alaskan climates. Reynolds, C.M., et al, [1994,eng] 48-4004
Biodegradation of aircraft deicing fluids in soil at low temperatures. Klečka, G.M., et al, [1993,eng] 48-3265
Casing materials for ground water monitoring wells. Parker, L.V., et al, [1994,eng] 48-5413
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Chemical denitrification in frozen soils. Christianson, C.B., [1981,eng] 48-3924
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] 48-798
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effect of freeze-thaw events on mineralization of soil nitrogen. DeLuca, T.H., et al, [1992,eng] 48-3412
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718
Experiments with explosive-contaminated soil. Jenkins, T.F., et al, [1993,eng] 48-723
Field bioremediation rates in a cold region landfarm: spatial variability. Reynolds, C.M., [1993,eng] 48-297
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] 48-5414
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-1092
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] 48-5415
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] 48-2950
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Soil sampling for volatile organic compounds. Hewitt, A.D., [1993,eng] 48-1955
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Vapor fortification in soil sampling for contaminants. Hewitt, A.D., [1993,eng] 48-1956
Vapor-fortified QA/QC soil subsamples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-3266

Soil classification

Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Correlation of Russian, US, and Canadian classification systems for selected tundra and taiga soils (in N-E Russia). Mazhitova, G., et al, [1993,eng] 48-2275
Determination of the amount of carbon in highly cryoturbated soils. Kimble, J.M., et al, [1993,eng] 48-2302
Factoral-genetic systematization of Middle Siberia subarctic soils. Ershov, IU.I., [1993,eng] 48-2279
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] 48-204
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] 48-2286
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Placement of cryosols in soil taxonomy. Arnold, R.W., et al, [1993,eng] 48-2273
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Principles of the Canadian cryosol classification. Tarnocai, C., [1993,eng] 48-2274
Problems of genesis and classification of north taiga soils of the European Russia. Vtiurin, G.M., [1993,eng] 48-2280
Redoximorphic features in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2296
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] 48-446
Soils of Casey Station (Wilkes Land, Antarctica). Blume, H.P., et al, [1993,eng] 48-2281
Warm permafrost soils of interior Alaska. Moore, J.P., et al, [1993,eng] 48-2282

Soil colloids

Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759

Soil compaction

Best compaction dry density study of sulphate salty soil. Fei, X.L., et al, [1993,chi] 48-1449
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Dilatometer for determination of the compression modulus of soils under field conditions. Blekhman, D.A., et al, [1990,eng] 48-1388
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash. Chun, B.S., et al, [1993,eng] 48-3117
Saturated soil compaction by blasts under winter conditions. Minaev, O.P., et al, [1994,eng] 48-4486
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463

Soil composition

Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Glacial dispersal of till constituents in morainic landforms of different types. Aario, R., et al, [1992,eng] 48-2516
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] 48-5414
Microelements in soils of southern Yakutia. Shindler, D.R., et al, [1992,rus] 48-4146
Origin of South German Alpine Foreland drumlins. Habbe, K.A., [1992,eng] 48-2521
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] 48-5415
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309

Soil conservation

Degradation and protection of grassland on the Qinghai-Tibet Plateau. Yang, D.G., [1992,eng] 48-4411
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140

See [also]: Slope protection; Soil erosion

Soil creep

Analogic conditions of simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] 48-1443
Analysis of permafrost solifluction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] 48-459
Change of pore ice and ice phase stress during the creep process of frozen soil. Ma, W., et al, [1993,chi] 48-1440
Characteristic of shear creep of frozen fine sand. Mi, H.Z., et al, [1993,chi] 48-4579
Computational modelling of structure-frozen soil/ice interaction. Puswewala, U.G.A., [1991,eng] 48-803

Creep and creep strength of frozen soil. Ma, W., et al, [1993,chi] 48-1441
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Creep effects on a laterally loaded pile. Domaschuk, L., et al, [1993,eng] 48-377
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] 48-3394
Dynamic strength and deformation properties of saturated frozen silt. He, P., et al, [1993,chi] 48-1447
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] 48-2351
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] 48-486
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Impact of salt type on deformation of frozen saline soils. Roman, L.T., et al, [1993,eng] 48-5234
Introduction of software used for experiment of mechanics of frozen soil. Shen, Z.Y., [1993,chi] 48-1455
Laser detection of creep in frozen soil. Wang, T.D., et al, [1993,chi] 48-1456
Microstructure damage in the frozen soil creep process. Zhang, C.Q., et al, [1993,chi] 48-1439
Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] 48-5229
Modelling of gelifluction and frost creep. Harris, C., et al, [1993,eng] 48-2020
New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] 48-1405
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia. McKeown, S., et al, [1994,eng] 48-3388
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Stone trails on unstable slopes. Dumas, B., et al, [1993,eng] 48-1848
Strength and yield criteria of frozen soil. Ma, W., et al, [1992,chi] 48-1417
Study of practicability about photoviscoelastic simulation test of frozen soil's creep. Wang, T.D., et al, [1993,chi] 48-1444
Study on creep of frozen soil by damage mechanics. Miao, T.D., et al, [1993,chi] 48-1438
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530

Soil dating
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] 48-2728
Palaeoecology of a late Allerød peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499
Soil formation and environmental changes in China's loess. Ohmori, H., et al, [1990,jpn] 48-3425
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] 48-3796

Soil erosion
Degradation and protection of grassland on the Qinghai-Tibet Plateau. Yang, D.G., [1992,eng] 48-4411
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Erosion and transport processes on badlands slopes. Lhénaff, R., et al, [1993,eng] 48-1849
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] 48-4405
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Gelifraction of periglacial mountain soils. Liu, G.N., et al, [1993,eng] 48-423
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] 48-401
Procedure for protecting soils from water erosion. Chmil, A.N., [1992,eng] 48-4070
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240
See [also]: Gullies; Soil conservation

Soil fluidization
See [also]: Thixotropy

Soil formation
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] 48-2016
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] 48-501
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] 48-204
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] 48-2286
Humus accumulation and soil formation in Svalbard. Lág, J., [1993,eng] 48-2303
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] 48-458
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Problems of genesis and classification of north taiga soils of the European Russia. Vtiurin, G.M., [1993,eng] 48-2280
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Role of water in the formation of the characteristics of forest soils in northern Tian Shan. Usupaev, Sh.E., [1990,rus] 48-1239
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] 48-940
Soil cover of the southern taiga in Central Siberia. Gorbachev, V.N., et al, [1992,rus] 48-4149
Soil formation and cryogenesis on the Russian plain during the last 125,000 years. Velichko, A.A., et al, [1993,eng] 48-2285
Soil formation and environmental changes in China's loess. Ohmori, H., et al, [1990,jpn] 48-3425
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] 48-3796

Soil freezing
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] 48-497
Approximate evaluation of the stress state of unrated sections of a main gas pipeline. Sosin, T.S., et al, [1990,rus] 48-52
Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Changing characteristics of hydraulic diffusivity of unsaturated soil. Deng, Y.S., et al, [1992,chi] 48-1412
Chemical denitrification in frozen soils. Christianson, C.B., [1981,eng] 48-3924
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A. [1993,eng] 48-2276
Coefficients of linear expansion of freezing soils. Mordovskiĭ, S.D., et al, [1993,eng] 48-70
Composite model of multiple actions for forming patterned ground. Li, G.P., et al, [1993,eng] 48-5221
Computationally feasible reduction of the O'Neill-Miller model of secondary frost heave. Fowler, A.C., et al, [1993,eng] 48-5205
Consolidation of deep layer frozen soils in triaxial tests. Li, K., et al, [1993,eng] 48-5222
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] 48-1399
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Critical segregation potential—frost heave upper limit. Svec, O.J., et al, [1993,eng] 48-461
Depth consolidation of frozen soils in triaxial tests. Li, K., et al, [1993,chi] 48-4497
Destruction and rehabilitation of shaft lining in frozen shaft. Wang, C.S., et al, [1993,chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft. Wang, C.S., et al, [1993,eng] 48-5243
Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil. Badmaeva, S.E., et al, [1992,rus] 48-4793
Effect of freeze-thaw events on mineralization of soil nitrogen. DeLuca, T.H., et al, [1992,eng] 48-3412
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil. Nelson, L.M., et al, [1978,eng] 48-3410
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effects of freeze-thaw stress on bacterial populations in soil microcosms. Morley, C.R., et al, [1983,eng] 48-3411
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] 48-1400
Essential types of heave development for soil freezing. Xu, X.Z., et al, [1993,chi] 48-1431
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] 48-5033
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects. Lee, W.J., [1994,eng] 48-3544
Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] 48-1416
Experimental studies on ice segregation and the modes of frost heaving. Chen, R.J., et al, [1993,eng] 48-5195
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Failure mechanism of loess cement under freeze thaw cyc... Zhang, X.G., et al, [1992,chi] 48-1406
Forest floor frost dynamics dur ng spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] 48-501
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Freezing as a means of preserving samples in soil respiration studies. Ritz, K., et al, [1989,eng] 48-3414
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] 48-4480
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330

Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,chi] **48-4491**
Frost heave of seasonally frozen soil in Inner Mongolia. Zhou, D.Y., [1993,eng] **48-5264**
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] **48-452**
Frost heave study in Japan. Ishizaki, T., [1993,eng] **48-1427**
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] **48-4500**
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] **48-5207**
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] **48-3953**
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] **48-886**
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] **48-2443**
Growth condition of an ice layer in frozen soils under applied loads. 2: Analysis. Nakano, Y., et al, 1994,eng] **48-3793**
Heat and mass transfer in frozen saline kaolin. Xu, X.Z., et al, [1992,chi] **48-2009**
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] **48-296**
Heat-mass transfer and deformation in frozen saline kaolin. Lebedenko, IU.P., et al, [1992,chi] **48-1408**
Heave and settlement of soils in one freeze-thaw cycle. Chen, X.S., et al, [1993,eng] **48-5197**
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] **48-1241**
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] **48-2297**
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] **48-2655**
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] **48-4832**
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] **48-1429**
Impact of salt type on deformation of frozen saline soils. Roman, L.T., et al, [1993,eng] **48-5234**
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] **48-4978**
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] **48-477**
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] **48-483**
Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils. Minkovskii, G.M., et al, [1993,eng] **48-2292**
Initiation of segregation freezing observed in porous soft rock during melting process. Akagawa, S., [1993,eng] **48-5191**
Introduction of software used for experiment of mechanics of frozen soil. Shen, Z.Y., [1993,chi] **48-1455**
Laboratory construction and administration. State Key Laboratory of Frozen Soil Engineering (Dongtu gongcheng guojia zhongdian shiyanshi), [1993,chi] **48-1426**
Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] **48-1402**
Long-term shear strength at frozen/unfrozen transition zone. Ding, J.K., et al, [1992,chi] **48-1407**
Long-term shear strength of frost-thaw transition zone. Ding, J.K., et al, [1993,chi] **48-4492**
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] **48-4660**
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] **48-2268**
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] **48-520**
Method of forming soil base on frozen ground. Petrov, B.G., et al, [1992,eng] **48-5512**
Model for ground with secondary frost heave. Lewis, G.C., et al, [1993,eng] **48-5190**
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] **48-2430**
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1992,chi] **48-1413**
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1993,eng] **48-453**
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] **48-4580**
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] **48-1719**
New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] **48-1405**
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] **48-4499**
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] **48-5262**
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] **48-4038**
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] **48-1153**
Orthogonal regression study of frost heave in saline soil. Gao, J.P., et al, [1993,chi] **48-1450**
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] **48-859**
Overburden pressure and ice formation in clay. Wang, J.C., et al, [1993,chi] **48-1433**
Permafrost formation time. Lunardini, V.J., [1993,eng] **48-428**
Permafrost in the north of Korean peninsula. An, V., [1993,eng] **48-511**
Physics of liquid water in frozen powders and soils. Fu, H.Y., et al, [1993,eng] **48-5209**
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] **48-5110**
Preliminary study on freezing point in soil. Cui, G.X., et al, [1993,chi] **48-4496**
Preliminary study on the freezing point in soil. Cui, G.X., et al, [1993,eng] **48-5200**
Pressure influence on pore characteristic of frozen soils. Wang, J.C., et al, [1992,chi] **48-1410**
Pressure influence on pore characteristics of frozen soils. Wang, J.C., et al, [1993,eng] **48-5244**
Prevention of canal frost damage. Wang, W.K., et al, [1993,eng] **48-479**
Primary study on interface conditions of ice-saturated clay. Xu, X.Z., et al, [1992,chi] **48-1409**
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] **48-1430**
Procedure for protecting soils from water erosion. Chmil, A.N., [1992,eng] **48-4070**
Proceedings. Vol.2. International Conference on Permafrost, 6th, Beijing, China, July 5-9, 1993, [1993,eng] **48-5180**
Proceedings. International Symposium on Thermal Engineering and Science for Cold Regions, (formerly, the International Symposium on Cold Regions Heat Transfer), 4th, Hanover, NH, Sep. 28-Oct. 1, 1993, [1993,eng] **48-857**
Process and apparatus for cleaning contaminated soil. Rebhan, D., [1990,eng] **48-2264**
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] **48-480**
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] **48-3220**
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] **48-3214**
Relationship between ice intrusion temperature and confined pressure. Chen, R.J., et al, [1993,eng] **48-5196**
Remote sensing of frozen soils in VHF range. Komarov, S.A., et al, [1993,eng] **48-1726**
Research of frost heave property of soil in Daqing region. Jang, H.J., et al, [1993,eng] **48-405**
Research of the frostheaving project survey. Huang, J.S., [1993,chi] **48-4581**
Research progress of Chinese geocryology viewed from 6th Intern'l Conference on Permafrost. Cheng, G.D., et al, [1993,chi] **48-4569**
Seasonal soil freezing and hydrological processes on slopes. Demidov, V.V., et al, [1993,eng] **48-2295**
Seasonally frozen ground and frost heave in Gansu Province. Yue, H.S., et al, [1993,eng] **48-5260**
Second order phase change in saline freezing soil. Zhang, L.X., et al, [1992,chi] **48-1411**
Similarity analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,eng] **48-5220**
Similitude analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,chi] **48-1448**
Similitude modeling of frozen soil excluding overburden. Zhu, L.N., et al, [1992,chi] **48-1419**
Simulation of soil freeze-thaw mechanics. Zhu, L.N., et al, [1993,eng] **48-509**
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] **48-5219**
Solute segregation during soil freezing and solute and heat transport in permafrost. Gosink, J.P., et al, [1991,eng] **48-3706**
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] **48-2951**
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] **48-1976**
Strength and yield criteria of frozen soil. Ma, W., et al, [1992,chi] **48-1417**
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] **48-420**
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] **48-3215**
Study of preventing frost heave with shaft construction for dissipating water energy. Wang, S.R., [1993,chi] **48-4501**
Study on preventing frost heave of the shaft-type energy dissipator. Wang, S.R., [1993,eng] **48-5246**
Super-time-saving numerical method for melting/freezing problem. Saitoh, T.S., et al, [1993,eng] **48-889**
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] **48-3959**
Thermophysical and electric properties of saline frozen soils. Frolov, A.D., et al, [1993,eng] **48-890**
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] **48-887**
Toward a molecular scale understanding of frost heaving: phase I. Final report. Cushman, J.H., [1993,eng] **48-2699**
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] **48-2750**
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] **48-5211**
Unfrozen water content and freeze-thaw in saline soil. Zhang, L.X., et al, [1993,chi] **48-1434**
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1992,chi] **48-1415**
Uniaxial stress relaxation of frozen loess. Wu, Z.W., et al, [1993,eng] **48-5250**
Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] **48-1404**
Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] **48-1403**
Water migration and ice formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] **48-1428**
Winter-associated changes in dry soil aggregation. Layton, J.B., [1993,eng] **48-3534**

Soil mapping
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany. Wang, C., et al, [1993,eng] **48-1720**
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] **48-5212**
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] **48-446**

Soil mechanics
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] **48-2733**
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] **48-454**
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] **48-3832**
Modeling the transport of heavy metals in soils. Selim, H.M., et al, [1990,eng] **48-3493**
Movement of mortar baseplates on soil; mortar stability report 1(U). Aitken, G.W., et al, [1973,eng] **48-3488**
See [also]: Frozen ground mechanics

Soil microbiology
Applying field-expedient bioreactors and landfarming in Alaskan climates. Reynolds, C.M., et al, [1994,eng] **48-4004**
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] **48-1230**
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] **48-4999**
Biodegradation of aircraft deicing fluids in soil at low temperatures. Klečka, G.M., et al, [1993,eng] **48-3265**
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] **48-4605**
Domestic sludge, a resource for Alaska. Johnson, R.A., [1980,eng] **48-4144**
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] **48-2424**
Effect of freeze-thaw events on mineralization of soil nitrogen. DeLuca, T.H., et al, [1992,eng] **48-3412**
Effect of freezing and thawing on survival of three bacterial isolates from an arctic soil. Nelson, L.M., et al, [1978,eng] **48-3410**
Effects of freeze-thaw stress on bacterial populations in soil microcosms. Morley, C.R., et al, [1983,eng] **48-3411**
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] **48-3718**
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] **48-722**
Field bioremediation rates in a cold region landfarm: spatial variability. Reynolds, C.M., [1993,eng] **48-297**
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] **48-644**
Freezing as a means of preserving samples in soil respiration studies. Ritz, K., et al, [1989,eng] **48-3414**
Grinding of frozen soil samples. Esala, M.J., [1994,eng] **48-5389**
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] **48-3785**
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskii, D.A., et al, [1993,eng] **48-518**
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia. Grishkan, I.B., et al, [1993,eng] **48-2301**
Mikrobiologiia krioaridnykh pochv (na primere Zabaikal'ia). Nimaeva, S.Sh., [1992,rus] **48-3633**
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] **48-347**
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] **48-4661**
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] **48-2065**
Room temperature isolations of low temperature microfungi. Carreiro, M.M., et al, [1992,eng] **48-3409**
Soil biological activity and transformation of organic matter during winter. Zolotareva, B., et al, [1993,eng] **48-2307**
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] **48-1892**
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] **48-4159**
Viable microorganisms in permafrost. Gilichinskiĭ, D.A., [1993,eng] **48-881**

Soil moisture
See [also]: Soil water

Soil physics
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] **48-492**
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] **48-4810**

Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Snow modelling in general circulation models (GCMs). Verseghy, D.L., [1993,eng] 48-1796
Soil biological activity and transformation of organic matter during winter. Zolotareva, B., et al, [1993,eng] 48-2307
See [also]: Frozen ground physics; Permafrost physics

Soil pollution
Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] 48-1526
Applying field-expedient bioreactors and landfarming in Alaskan climates. Reynolds, C.M., et al, [1994,eng] 48-4004
Artificial freezing of oil polluted and saline soils. Jiang, D.H., et al, [1994,eng] 48-5595
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] 48-3033
Biodegradation of aircraft deicing fluids in soil at low temperatures. Klečka, G.M., et al, [1993,eng] 48-3265
Burning of diesel oil spill. D'Atri, B., et al, [1993,eng] 48-3719
Casing materials for ground water monitoring wells. Parker, L.V., et al, [1994,eng] 48-5413
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Concentration stability of four volatile organic compounds in soil subsamples. Hewitt, A.D., [1994,eng] 48-5411
Condensed gases under winter conditions: a study for the rescue services. Winter, S., et al, [1992,swe] 48-4719
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] 48-798
Distribution of white phosphorus residues from the detonation of 81-mm mortar WP smoke rounds at an upland site. Walsh, M.E., et al, [1993,eng] 48-1002
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Effects of freeze/thaw cycles on hydrocarbon contaminants in the active layer. Cummings, M.A., et al, [1994,eng] 48-3385
Effects of leachates from industrial wastes on soil properties in permafrost areas. Lolaev, A.B., et al, [1994,eng] 48-3358
Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Environmental radioactivity measurements in Wilkes Land, Eastern Antarctica, 1991. Baciu, F., [1993,eng] 48-4538
Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska. Munter, J.A., [1994,eng] 48-5101
Evaluation of pre-extraction analytical holding times for tetryl in soil. Jenkins, T.F., [1994,eng] 48-5410
Evaluation of the use of supercritical fluids for the extraction of explosives and their degradation products from soil. Thorne, P.G., [1994,eng] 48-5310
Evaporation of crude oil and diesel from beach sediment. Bech, C., et al, [1993,eng] 48-3715
Experimental assessment of analytical holding times for nitroaromatic and nitramine explosives in soil. Grant, C.L., et al, [1993,eng] 48-721
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Experiments with explosive-contaminated soil. Jenkins, T.F., et al, [1993,eng] 48-723
Field bioremediation rates in a cold region landfarm: spatial variability. Reynolds, C.M., [1993,eng] 48-297
Geochemistry of Yakutia permafrost zones. Makarov, V.N., [1993,eng] 48-526
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138
HT deposition to snow. Chalk River Laboratories, March, 5-6, 1991. Ogram, G.L., [1992,eng] 48-2644
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] 48-1241
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] 48-3558
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] 48-3245
Key Lake spill. Final report.[1984,eng] 48-3677
Losses of trichloroethylene from soil during sample collection, storage and laboratory handling. Hewitt, A.D., [1994,eng] 48-5149
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] 48-5414
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-1092
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] 48-5415
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] 48-3491
Proceedings. Arctic and Marine Oil Spill Program (AMOP) Technical Seminar, 16th, Calgary, Alberta, June 7-9, 1993, [1993,eng] 48-3714
Process and apparatus for cleaning contaminated soil. Rebhan, D., [1990,eng] 48-2264
Radioactive contamination of topsoil in the lower reaches of Techa River in the Urals. Pozolotina, V., et al, [1993,eng] 48-4527
Radioactivity levels in antarctic samples. Schuch, L.A., et al, [1993,eng] 48-4537
Recultivation of oil-contaminated soils. Chalysheva, L.V., et al, [1990,rus] 48-5404
Remediation of petroleum contaminated soils through bioventing in cold regions. Brar, G.S., et al, [1993,eng] 48-2065
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Simulation of hydrocarbon spills in permafrost. Corapcioglu, M.Y., et al, [1993,eng] 48-367
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Soil sampling for volatile organic compounds. Hewitt, A.D., [1993,eng] 48-1955
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222
Vapor fortification in soil sampling for contaminants. Hewitt, A.D., [1993,eng] 48-1956
Vapor-fortified QA/QC samples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-5408
Vapor-fortified QA/QC soil subsamples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-3266
Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution. Makarova, T.D., [1992,rus] 48-2118

Soil pressure
Change of pore ice and ice phase stress during the creep process of frozen soil. Ma, W., et al, [1993,chi] 48-1440
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Creep and creep strength of frozen soil. Ma, W., et al, [1993,chi] 48-1441
Creep effects on a laterally loaded pile. Domaschuk, L., et al, [1993,eng] 48-377
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1429
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Pressure influence on pore characteristic of frozen soils. Wang, J.C., et al, [1992,chi] 48-1410
Pressure influence on pore characteristics of frozen soils. Wang, J.C., et al, [1993,eng] 48-5244
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] 48-1430
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] 48-3214
Similitude analysis of modeling test of frozen soil under load. Li, D.Q., et al, [1993,chi] 48-1448
Similitude modeling of frozen soil excluding overburden. Zhu, L.N., et al, [1992,chi] 48-1419
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431
Water migration and ice formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1428

Soil profiles
^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Carbon dioxide behaviour in cryogenic soils of north-eastern Asia. Fedorov-Davydov, D.G., [1993,eng] 48-2309
Delta^{13}C-analysis of permafrost soil samples of NE- Siberia. Pfeiffer, E.M., et al, [1993,eng] 48-2304
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Humus accumulation and soil formation in Svalbard. Låg, J., [1993,eng] 48-2303
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] 48-2297
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils. Minkovskii, G.M., et al, [1993,eng] 48-2292
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Loess and its climate records in Kunlun Shan region since the late Pleistocene. Zhao, X.F., et al, [1993,eng] 48-504
Microfossils in a High Arctic peat deposit. Brown, K.M., et al, [1994,eng] 48-5126
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-42[illegible]
Permafrost ice content in Quebec. Seguin, M.K., et al, [1990,eng] 48-2544
Permafrost structure, King George I. Zhu, C., et al, [1993,eng] 48-1515
Pool and renovation time of soil carbon in northern taiga and tundra of European Russia. Cherkinskii, A.E., et al, [1993,eng] 48-2306
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Profile nitrous oxide and carbon dioxide concentrations in a soil subject to freezing. Burton, D.L., et al, [1994,eng] 48-4160
Properties of calcitic pendents from Spitsbergen. Courty, M.A., et al, [1994,eng] 48-3220
Redoximorphic features in permafrost soils. Ping, C.L., et al, [1993,eng] 48-2296
Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318

Soil science
Grinding of frozen soil samples. Esala, M.J., [1994,eng] 48-5389
Micromorphology for diagnostics of the modern and paleocryosoils features. Tursina, T.V., [1993,eng] 48-2287
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835

Soil settling
See [also]: Settlement (structural)

Soil solutions
See [also]: Soil water

Soil stabilization
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Damage and protection of earth dam slopes in cold region. Jiang, B.L., et al, [1994,eng] 48-3961
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] 48-1102
Destruction and rehabilitation of shaft lining in frozen shaft. Wang, C.S., et al, [1993,chi] 48-4498
Destruction and rehabilitation of shaft lining used in frozen shaft. Wang, C.S., et al, [1993,eng] 48-5243
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Elastoplastic calculation of bottom heave in artificially frozen shaft. Ma, W., et al, [1992,eng] 48-1400
Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] 48-1416
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Frost heave in compacted earth dams. Xie, Y.Q., et al, [1993,eng] 48-5252
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] 48-3953
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash. Chun, B.S., et al, [1993,eng] 48-3117
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Grouted pile displacement in saline frozen soils. Biggar, K.W., et al, [1994,eng] 48-4839
Highwall stability in strip mines in permafrost. Vakili, J., [1993,eng] 48-5242
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Method of forming soil base on frozen ground. Petrov, B.G., et al, [1992,eng] 48-5512
Permafrost zone well cementing. Gridnev, S.M., et al, [1992,eng] 48-4073
Primary study on relationship between overburden pressure and freezing point of moist sand. Cui, G.X., et al, [1993,chi] 48-1430

Problems of slope protection latticeworks in cold regions. Noto, S., et al, [1988,jpn] 48-562
Procedure for protecting soils from water erosion. Chmil, A.N., [1992,eng] 48-4070
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] 48-1976
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Study and development of the techniques against frost damage of hydraulic structures. Xu, B.M., et al, [1993,eng] 48-5254
Study of preventing frost heave with shaft construction for dissipating water energy. Wang, S.R., [1993,chi] 48-4501
Study on preventing frost heave of the shaft-type energy dissipator. Wang, S.R., [1993,eng] 48-5246
Systems of earth dam freezing with forced circulation of a coolant. Bondarev, E.A., et al, [1994,eng] 48-3959
Thermosyphon applications in cold regions. Zarling, J.P., [1993,eng] 48-860
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] 48-2214

Soil strength

Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] 48-454
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] 48-5377
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects. Lee, W.J., [1994,eng] 48-3544
Failure mechanism of loess cement under freeze thaw cycles. Zhang, X.G., et al, [1992,chi] 48-1406
Frost protection for road construction in cold regions. Sheng, D.C., [1994,eng] 48-3953
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
Loess-soil cement freeze-thaw weakening. Zhang, H.Y., et al, [1993,eng] 48-496
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Modelling of dynamic soil-structure-ice interaction. Kärnä, T., [1992,eng] 48-3701
Nonlinear analysis of incompressible soil foundation for gravity arctic structures. Kim, H.O., et al, [1993,eng] 48-4361
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Winter-associated changes in dry soil aggregation. Layton, J.B., [1993,eng] 48-3534

Soil structure

Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] 48-2294
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] 48-2542
Influence of winter freezing on the organic profile structure of middle Sikhote-Alin soils. Minkovskiĭ, G.M., et al, [1993,eng] 48-2292
Introduction of application methods for CT in frozen soil experimental research. Pu, Y.B., [1993,eng] 48-5231
Introduction of applying method for CT in frozen soil experiment research. Pu, Y.B., [1993,chi] 48-1459
Microstructure damage theory of creep in frozen soil. Miao, T.D., et al, [1993,eng] 48-5229
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] 48-369
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Pressure influence on pore characteristics of frozen soils. Wang, J.C., et al, [1993,eng] 48-5244
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240

Soil surveys

Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
Compilation of geotechnical information from the short range radar sites into a public domain database. Biggar, K.W., et al, [1994,eng] 48-3389
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Delta^{13}C-analysis of permafrost soil samples of NE- Siberia. Pfeiffer, E.M., et al, [1993,eng] 48-2304
Design of an experiment to detect the effects of global change on soil development in the Southern Circumpolar Region. Bockheim, J.G., et al, [1993,eng] 48-2288
Dilatometer for determination of the compression modulus of soils under field conditions. Blekhman, D.A., et al, [1990,eng] 48-1388
Lichenicolous fungi from Spitsbergen. Alstrup, V., et al, [1993,eng] 48-5003
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] 48-5047
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Permafrost in the north of Korean peninsula. An, V., [1993,eng] 48-511
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
Research of frost heave property of soil in Daqing region. Jang, H.J., et al, [1993,eng] 48-405
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Soil cover of river valleys of the Yamal Peninsula. Gafurov, F.G., [1993,eng] 48-2283
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] 48-2284
Soils of Casey Station (Wilkes Land, Antarctica). Blume, H.P., et al, [1993,eng] 48-2281
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049

Soil temperature

Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] 48-459
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] 48-497
Building construction on permafrost foundations. Goncharov, IU.M., [1993,eng] 48-519
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Electromagnetic wave propagation in saline permafrost. Fedi-ukin, I.V., et al, [1993,eng] 48-381
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions. Skriabin, P.N., et al, [1992,rus] 48-4800
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Forest soil temperature prediction from air temperature records. Yin, X.W., et al, [1993,eng] 48-4810
Forest-growing potential of soils in the mountain boreal forests of southern Siberia. Ermolenko, L.G., et al, [1991,rus] 48-4145
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Groundwater temperatures during the winter in a forested basin. Calkins, D.J., [1993,eng] 48-2923
Ice wedge significance during Qinghai-Tibetan Plateau glaciation. Pan, B.T., et al, [1994,eng] 48-4260
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
International tour of permafrost affected soils; the Yukon and Northwest Territories of Canada. Tarnocai, C., et al, [1993,eng] 48-2498
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1993,eng] 48-453
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
MST-88 multichannel temperature data logger. Wang, L.W., et al, [1993,chi] 48-4592
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
NYTEMP user's manual: a pavement temperature model. Chen, H.J., [1993,eng] 48-1839
Optimal thermal melioration of soil in climatic conditions of the North. Romanov, P.G., et al, [1992,rus] 48-4791
Permafrost in the north of Korean peninsula. An, V., [1993,eng] 48-511
Placement of cryosols in soil taxonomy. Arnold, R.W., et al, [1993,eng] 48-2273
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Warm permafrost soils of interior Alaska. Moore, J.P., et al, [1993,eng] 48-2282

See [also]: Frozen ground temperature

Soil tests

Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] 48-497
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] 48-376
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] 48-1230
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999
Concentration stability of four volatile organic compounds in soil subsamples. Hewitt, A.D., [1994,eng] 48-5411
Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] 48-1399
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Deaerator use in soil tests. Deng, Y.S., et al, [1993,chi] 48-1458
Depth consolidation of frozen soils in triaxial tests. Li, K., et al, [1993,chi] 48-4497
Development of refrigerating cycling bath. Hou, Z.J., et al, [1993,chi] 48-1460
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Domestic sludge, a resource for Alaska. Johnson, R.A., [1980,eng] 48-4144
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] 48-395
Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840
Dynamic strength and deformation properties of saturated frozen silt. He, P., et al, [1993,chi] 48-1447
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Electromagnetic wave propagation in saline permafrost. Fedi-ukin, I.V., et al, [1993,eng] 48-381
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
Freezing as a means of preserving samples in soil respiration studies. Ritz, K., et al, [1989,eng] 48-3414
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] 48-394
Frost heave susceptibility of highway bridge foundation soil in seasonal frost regions. Dai, H.M., et al, [1993,eng] 48-371
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Grouting to enhance frost resistance of pile structures. Zhang, X., et al, [1993,eng] 48-500
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] 48-1241
Hydrogeological aspects of cryogenic slides on the Yamal Peninsula. Leibman, M.O., et al, [1993,eng] 48-419
Infiltration of meltwater into frozen soils in a continuous permafrost environment. Marsh, P., et al, [1993,eng] 48-433
Influence of a freeze and thaw cycle on liquefaction resistance of sandy soils. Goto, S., [1993,eng] 48-4978
Influence of freeze thaw cycles on soil carbon cycle. Wang, F.L., et al, [1993,eng] 48-1918
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] 48-483
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Influence of various factors on dynamic elastic modulus of frozen silt. He, P., et al, [1992,chi] 48-1420
Instability of tetryl to Soxhlet extraction. Jenkins, T.F., et al, [1994,eng] 48-3558

Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] 48-5414
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Mechanisms of layer structures growing during ground freezing. Gorelik, IA., et al, [1993,eng] 48-520
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Model of elastic wave propagation in frozen media—comparison with experimeat. Leclaire, P., et al, [1993,eng] 48-417
Monitoring thawing front movement by self-potential measurement. Fortier, R., et al, [1993,eng] 48-383
New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] 48-1405
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Peculiarities of gas hydrate formation in sands. Ershov, E.D., et al, [1993,eng] 48-379
Plastic frozen (saline) soil as bases. Aksenov, V.I., et al, [1993,eng] 48-349
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Preextraction holding times for nitroaromatics and nitramines in soils. Jenkins, T.F., et al, [1994,eng] 48-5415
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661
Shallow foundation in the region of frozen ground. Tong, C.J., et al, [1993,eng] 48-467
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Soil sampling for volatile organic compounds. Hewitt, A.D., [1993,eng] 48-1955
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Vapor fortification in soil sampling for contaminants. Hewitt, A.D., [1993,eng] 48-1956
Vapor-fortified QA/QC samples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-5408
Vapor-fortified QA/QC soil subsamples for the analysis of volatile organic compounds. Hewitt, A.D., [1994,eng] 48-3266
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240

Soil texture
Active layer landslides on Ellesmere I. Harris, C., et al, [1993,eng] 48-392
Analysis of the sediment formation of the Quaternary mudstone in the Mount Huangshan. Zhou, B.G., et al, [1992,chi] 48-2016
Introduction of application methods for CT in frozen soil experimental research. Pu, Y.B., [1993,eng] 48-5231
Introduction of applying method for CT in frozen soil experiment research. Pu, Y.B., [1993,chi] 48-1459
Moraine formation below a Norwegian tempera e valley glacier. Benn, D.I., [1994,eng] 48-4976
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048

Soil thawing
See [also]: Ground thawing

Soil trafficability
Compressing properties and salt heaving mechanism study of sulphate salty soil. Fei, X.L., et al, [1993,eng] 48-5204
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] 48-5377
Terrain characterization for trafficability. Shoop, S.A., [1993,eng] 48-718
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824

Soil veins
See [also]: Patterned ground

Soil water
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] 48-380
Distribution of saline permafrost in the Northwest Territories, Canada. Hivon, E.G., et al, [1993,eng] 48-1015
Effects of deicing-salts on heavy metal mobility. Bauske, B., et al, [1993,eng] 48-3235
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Evaluation of deterministic models for near surface soil moisture prediction. Cochrane, J.E., et al, [1988,eng] 48-5377
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Isotopic determination of snow-water contribution to soil water and groundwater. Maulé, C.P., et al, [1994,eng] 48-4981
Means of optimizing the water regime of soils in the steppe landscapes of Siberia. Kochurov, B.I., [1990,rus] 48-2073
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397
Placement of cryosols in soil taxonomy. Arnold, R.W., et al, [1993,eng] 48-2273
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Snow and soil moisture-reserve measuring device. Abelentsev, V.V., et al, [1992,eng] 48-4072
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed, [1992,eng] 48-4009
Soil water content regulating procedure. Bagirov, M.N., et al, [1992,eng] 48-4068
Terrain and geochemical aspects of the interaction between natural and anthropogenic factors. Khrustaleva, M.A., [1990,rus] 48-2072
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159
Viscosity measurements on very wet soils. Shoop, S.A., [1993,eng] 48-1174
See [also]: Ground water; Unfrozen water content

Soil water migration
Best compaction dry density study of sulphate salty soil. Fei, X.L., et al, [1993,chi] 48-1449
Calculation of frost heave in saturated soil under constant surcharge. Sheng, Y., [1994,eng] 48-3395
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] 48-391
Changes in hydraulic conductivity caused by freeze-thaw. Othman, M.A., et al, [1992,eng] 48-1110
Changing characteristics of hydraulic diffusivity of unsaturated soil. Deng, Y.S., et al, [1992,chi] 48-1412
Effect of freeze-thaw on the hydraulic conductivity of three compacted clays from Wisconsin. Othman, M.A., et al, [1992,eng] 48-1111
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Effects of freezing on hydraulic conductivity of compacted clay—discussion. Paruvakat, N., et al, [1993,eng] 48-1785
Essential types of heave development for soil freezing. Xu, X.Z., et al, [1993,chi] 48-1431
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] 48-492
Evaluation and application of ice segregation parameters for frost heave prediction. Ito, Y., [1993,eng] 48-5033
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al '1993,eng] 48-3837
Freeze thaw and hydraulic conductivity of compacted clays. Othman, M.A., [1992,eng] 48-1109
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] 48-4480
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Growth condition of a segregated ice layer and the segregation potential. Nakano, Y., et al, [1993,eng] 48-886
Heat and water flows in freezing and thawing soils. Engelmark, H., [1993,eng] 48-296
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] 48-1241
Ice lens formation and frost heave from a thermodynamic rheologic perspective. Smith, S.L., [1992,eng] 48-2655
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] 48-4821
Impact of pressure on the processes of ice, texture and structure formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1429
Influence of porous characteristic of material on displacement during freezing. Wang, J.C., et al, [1993,eng] 48-477
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] 48-1402
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] 48-386
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1992,chi] 48-1413
Model of migration potential for moisture migration during soil freezing. Sheng, Y., et al, [1993,eng] 48-453
Moisture migration and temperature field during pavement freezing. Lian, L.M., et al, [1993,chi] 48-4580
Numerical investigation of infiltration into frozen soil. Tao, Y.X., et al, [1993,eng] 48-888
Numerical modelling of phase change in freezing and thawing unsaturated soil. Engelmark, H., et al, [1993,eng] 48-1153
Osmotic model of ice segregation. Horiguchi, K., et al, [1993,eng] 48-859
Phenomenological modelling of frost-susceptible soils. Michalowski, R.L., [1993,eng] 48-437
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Rate equations during ice segregation. Horiguchi, K., [1992,jpn] 48-3214
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Structure and texture formation of frozen sapropel. Chuvilin, E.M., et al, [1993,eng] 48-365
Study of frost heave evaluation and test method. Ishizaki, T., [1992,jpn] 48-3215
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] 48-887
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247
Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] 48-1404
Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] 48-1403
Water migration and ice formation in frozen rocks. Lebedenko, IU.P., et al, [1993,eng] 48-1428

Soils
See [also]: Chernozem; Clay soils; Cryogenic soils; Desert soils; Fines; Forest soils; Frozen ground; Meadow soils; Mountain soils; Noncohesive soils; Organic soils; Podsol; Saline soils; Subgrade soils

Solar activity
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Solar flares in antarctic ice cores. Dreschhoff, G.A.M., et al, [1993,eng] 48-3940
Trend estimation of total ozone in the principal air masses of the northern hemisphere in 1975-1986. Karol', I.L., et al, [1993,rus] 48-2484
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816

Solar radiation
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Alaska Energy Authority PV-diesel hybrid assessment and design program. Durand, S.J., et al, [1991,eng] 48-4757
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Atlas of the energy balance of the northern polar area. Girdiuk, G.V., et al, [1992,rus] 48-1479
Atmospheric radiative characteristics in a Canadian climatic model. Barker, H.W., et al, [1994,eng] 48-5133
Climates of the world. Martyn, D., [1992,eng] 48-2709
Conceptual basis for understanding late-Quaternary climates. Kutzbach, J.E., et al, [1993,eng] 48-2975
Decay of flooded ice on timber storage areas. Lehmus, E., [1992,fin] 48-2077
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] 48-451
Effect of decreased solar luminosity on Late Precambrian ice extent. Crowley, T.J., et al, [1993,eng] 48-952
Experiment in analyzing the effect of local factors on the distribution of snow cover in mountains. Severskii, S.I., [1992,rus] 48-4465
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
JARE-31 meteorological observations at Showa and Asuka stations in 1990. Tsukamura, K., et al, [1993,jpn] 48-1183
Meteorological data at Showa Station, 1992. Japanese Antarctic Research Expedition, [1993,eng] 48-3820
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] 48-3733

Modelling cirrus optical properties. Hess, M., et al, [1993,eng] 48-2990
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
Pleistocene glaciations in Qinghai-Tibet Plateau: explanation with astroclimatology. Xu, Q.Q., [1993,chi] 48-4572
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Scattering of light by two-dimensional fractals. Macke, A., et al, [1993,eng] 48-2992
Snow and cloud feedbacks modelled by an atmospheric general circulation model. Colman, R.A., et al, [1994,eng] 48-3256
Snow melting system using the solar energy accumulated in the embankment. Suzuki, T., [1993,eng] 48-1195
Snow-atmosphere interactions in arctic snowpacks. Jones, H.G., et al, [1993,eng] 48-2952
Solar energy potentialities and prospects in Antarctica. Sheinstein, A.S., et al, [1993,rus] 48-3568
Solar heated driveway apparatus. Hanley, R.M., [1993,eng] 48-4957
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Solar radiation and frost penetration under canal banks. Li, A.G., et al, [1993,eng] 48-5219
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al, [1989,eng] 48-1472
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Stratospheric ozone and solar radiative climate forcing. Haigh, J.D., [1994,eng] 48-5323
Thermosyphon solar collector systems in cold regions. Cheng, K.C., et al, [1993,eng] 48-892
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450
Use of Be-10 in polar ice to trace the 11-year cycle of solar activity. Beer, J., et al, [1990,eng] 48-1816
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329

Solar visible spectrum
See [also]: Sunlight

Solid liquid interfaces
See [also]: Liquid solid interfaces

Solid phases
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] 48-2509

Solidification
Axial conduction during liquid freezing in cooled tubes. Sadeghipour, M.S., et al, [1994,eng] 48-4704
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] 48-4814
Freezing in a laminar region of a parallel plate duct. Prasad, A., et al, [1993,eng] 48-862
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] 48-2506
Liquid solidification in forced flows in parallel plate channels. Weigand, B., et al, [1993,eng] 48-861
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697

Solids
Multiple cracking and damage in brittle solids. Kachanov, M., [1992,eng] 48-1551
New method to obtain 3-D Green's functions for anisotropic solids. Wang, C.Y., et al, [1993,eng] 48-5016
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984

Solifluction
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Analysis of permafrost solifluction stages. Vtiurina, E.A., et al, [1993,eng] 48-474
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Genesis of Australian alpine soils. Costin, A.B., [1986,eng] 48-204
Geological processes and geocryogenic effects in the central Andes. Grosso, S.A., et al, [1992,eng] 48-2010
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] 48-693
Palaeoecology of a late Alleröd peat bed at Godöy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] 48-5202
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] 48-4487
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Recent discovery of periglacial phenomena in Inner Mongolia. Wang, Z.Y., et al, [1993,eng] 48-5249
Solifluction dynamics of certain Rocky Mountain slopes. Smith, D.J., [1988,eng] 48-2560
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388

Solubility
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] 48-1256
Comments on paper by Bustamante et al. Leggett, D.C., [1994,eng] 48-5417
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] 48-4697
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskiĭ, A.B., et al, [1953,rus] 48-1290
Hydrocarbon exclusion from ground water during freezing. Tumeo, M.A., et al, [1993,eng] 48-1241
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Solubility of carbon dioxide in solid water. Heyke, H.E., [1993,ger] 48-3036
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Trace metal solubility in soils and waters receiving deicing salts. Amrhein, C., et al, [1994,eng] 48-4159

Solutions
Acceleration of oxidation-reduction reactions in freezing solution. Takenaka, N., et al, [1993,eng] 48-1866
Acetate de-icing agent for road surfaces. Stankowiak, A., et al, [1993,eng] 48-1939
Alternative de-icing agents for bridges and airports. Bjerrum, J., et al, [1991,dan] 48-4133
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] 48-993
Antifreeze proteins. Lillford, P.J., et al, [1994,eng] 48-4659
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] 48-3598
Cell-free and whole cell ice nucleators and process for their production. Wight, D.R., et al, [1993,eng] 48-1282
Comments on paper by Bustamante et al. Leggett, D.C., [1994,eng] 48-5417
Cryoprotectant composition. Shin, C.C.H., et al, [1989,eng] 48-1876
Cryoprotectant composition. Shin, C.C.H., et al, [1993,eng] 48-1281
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
Deicing compositions. Hansen, C.N., [1986,eng] 48-4273
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] 48-5024
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] 48-5056
Dyeing of snow surfaces to observe snow structure. Kovacs, A., [1993,eng] 48-3601
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
Effects of fins on solution solidification. Sasaguchi, K., et al, [1994,eng] 48-4814
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Flameless deicer. Brigham, W.D., et al, [1993,eng] 48-1285
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Freezing of an aqueous salt solution through a porous film. Narumi, A., et al, [1993,eng] 48-4368
Freezing of brine solutions. Medjani, K., et al, [1993,eng] 48-2343
Freezing-temperature depressions of aqueous potassium hydrogen carbonate. Apelblat, A., [1994,eng] 48-3813
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Geocryological implications of colloid solution freezing. Mel'nikov, V.P., et al, [1993,eng] 48-435
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] 48-2451
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Measurement of ice fraction in NaCl solution with FTIR. Mizoguchi, M., et al, [1992,eng] 48-293
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] 48-3625
Melting heat transfer of liquid ice in a rectangular cavity with a heated vertical wall. Fukusako, S., et al, [1993,eng] 48-2460
Model of diffusion-limited ice growth inside biological cells during freezing. Karlsson, J.O.M., et al, [1994,eng] 48-4282
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Moss cryoprotection by natural and artificial substances. Rütten, D., et al, [1993,eng] 48-1216
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
New sensor can reduce highway deicer use.[1994,eng] 48-4255
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450
Oxidation in frozen aqueous solutions. Vajda, T., [1993,eng] 48-2216
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Twin rinse columns for freeze concentration of rinsable concentrates. Heiland, W.K., et al, [1991,eng] 48-2224
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR anti-icing fluid UC 5.1. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4059
UCAR deicing fluid concentrate and 50/50. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4057
UCAR deicing fluid XL 54. Union Carbide Chemicals and Plastics, Inc., [1992,eng] 48-4058
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697
X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

Sonar
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
See [also]: Acoustic measurement

Sonic velocity
See [also]: Sound transmission

Sorting
Formation and distribution of the sorted circles at the head area of Urumqi River. Liu, G.N., et al, [1993,chi] 48-4576
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Sorted circles in an empty cirque at the head of the Urumqi River. Xiong, H.G., et al, [1993,eng] 48-5253
Sorted polygons on an Icelandic highland. Krüger, J., [1994,eng] 48-4826
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782

Sound
See [also]: Acoustics

Sound transmission
Acoustic inspection of thawing building foundations. Potapov, A.I., et al, [1993,eng] 48-1916
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Sound speed, reflectivity, and absorption measurements in arctic ice in 1988. Wen, T., et al, [1991,eng] 48-4733
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920

Sound waves
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] 48-417
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465
Sounding
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] 48-5477
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] 48-3576
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] 48-5457
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] 48-5422
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] 48-1279
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] 48-1615
Charting the bathymetry of Weddell Sea, Antarctica. Hinze, H., [1994,eng] 48-5424
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] 48-626
Distribution of permafrost in rock glaciers of the southern Alps (France). Evin, M., et al, [1990,eng] 48-2103
Extinction and scattering of millimeter waves by cloud and precipitation particles. Terzi, V.F., et al, [1992,eng] 48-1022
Footprint size of a helicopter-borne electromagnetic induction sounding system versus antenna altitude. Kovacs, A., et al, [1993,eng] 48-1004
Glacial erosion processes need improved understanding. Saettem, J., [1992,eng] 48-2457
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Icing relevant parameters from sounding of stratiform clouds. Hoffmann, H.E., et al, [1990,ger] 48-4862
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834
Microwave sounding of antarctic stratospheric ozone content. Waters, J.W., et al, [1993,eng] 48-962
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] 48-630
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] 48-5448
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] 48-4013
Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] 48-3731
Problems of the geomorphology of glaciated shelves. Ionin, A.S., et al, [1993,eng] 48-2539
Record low ozone at the South Pole in the spring of 1993. Hofmann, D.J., et al, [1994,eng] 48-4440
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] 48-2475
Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Springtime stratospheric water vapour in the southern hemisphere as measured by MLS. Harwood, R.S., et al, [1993,eng] 48-625
Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] 48-5442
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] 48-2586
See [also]: Echo sounding; Radio echo soundings
South America
Southern Hemisphere snow cover climatology. Dewey, K.F., [1993,eng] 48-1799
South Atlantic Ocean
Phytoplankton production and biomass in South Atlantic Ocean frontal zones. Laubscher, R.K., et al, [1993,eng] 48-918
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eug] 48-4391
South Georgia
Carbon monoxide hazard in sub-antarctic exploration. Gill, R.M.F., [1994,eng] 48-5122
Movement and decay of the tabular iceberg A-24. Hawkins, J.D., et al, [1993,eng] 48-328
South Pacific Ocean
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391
South Shetland Islands
^{137}Cs areal concentration in two sites in the Southern Shetland Islands. Schuller, P., et al, [1993,eng] 48-4536
Environmental radioactivity in the Antarctic Peninsula area. Roos, P., et al, [1993,eng] 48-4533
Spaceborne photography
Algorithm to improve satellite imagery of sea ice distribution. Steffen, K., et al, [1989,eng] 48-2670
Altimeter Sea Ice Workshop, Feb. 15-16, 1990. Hawkins, J.D., ed, [1990,eng] 48-1481
Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477
Analysis of ERS-1 radar altimeter data over Antarctica. Ihde, J., et al, [1994,eng] 48-3435
Analysis of snow cover on glaciers in the central Tyrolean Alps from Landsat images. Rott, H., [1977,ger] 48-3308
Analysis of visible and microwave satellite data for snow mapping in Alaska. Hall, D.K., et al, [1993,eng] 48-2937
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Antarctic glacial dynamics inferred from remote sensing data. Frezzotti, M., [1993,eng] 48-1301
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Antarctic topography derived from ERS-1 altimetry. Bamber, J.L., et al, [1994,eng] 48-3434
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] 48-3697
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Application of MOS-1 MSR data for sea ice study. Cho, K., et al, [1990,jpn] 48-4683
Applications of passive microwave satellite data for arctic sea ice studies. Wright, W.A., [1991,eng] 48-4729
Approach to assessing changes in snow cover: an example for the former Soviet Union. Barry, R.G., et al, [1993,eng] 48-2924
Arctic and antarctic sea ice, 1978-1987. Gloersen, P., et al, [1993,eng] 48-1291
Arctic radiative fluxes modeled from the ISCCP-C2 data set, 1983-1986. Schweiger, A.J., [1993,eng] 48-3537
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Automatic cloud detection applied to NOAA-11/AVHRR imagery. Derrien, M., et al, [1993,eng] 48-3229
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Cape Cod snowstorm. Ruminski, M., [1994,eng] 48-2761
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Chlorine threat to stratospheric ozone. Waters, J.W., [1993,eng] 48-2666
Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011
Cloud cover constraints on satellite sensing of polar ice sheets. Marshall, G.J., et al, [1993,eng] 48-1308
Cloud screening in AVHRR digital data over arctic regions. Gallegos, S.C., et al, [1993,eng] 48-1353
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Comparison of arctic and antarctic mesoscale vortices. Turner, J., et al, [1993,eng] 48-199
Comparison of SSM/I ice-concentration algorithms for the Weddell Sea. Burns, B.A., [1993,eng] 48-1347
Comparison of two satellite-derived albedo data sets for the Arctic Ocean. Serreze, M.C., et al, [1993,eng] 48-1805
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Data set of arctic AVHRR imagery for the study of leads. Fetterer, F.M., et al, [1993,eng] 48-1355
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] 48-11
Design of a scanning, spaceborne radar altimeter for measuring polar ice. Jensen, J.R., et al, [1993,eng] 48-1722
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Detection of coastal polynyas with passive microwave data. Markus, T., et al, [1993,eng] 48-1348
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] 48-2927
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery. Sievers, J., et al, [1991,eng] 48-2
Dramatic contrast between low clouds and snow cover in daytime 3.7 micron imagery. Kidder, S.Q., et al, [1984,eng] 48-3075
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
ERS-1 radar- and airborne laser altimetry over Greenland. Thomas, R.H., et al, [1994,eng] 48-3442
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] 48-1686
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1994,eng] 48-3457
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] 48-3484
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] 48-3445
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] 48-2945
Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] 48-2773
Evaluation of the data measured by MSR related to snowpack parameter. Suzuki, M., et al, [1990,jpn] 48-4875
Evidence for floating ice shelves in Franz Josef Land, Russian High Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3511
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] 48-1056
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Fast recession of the northern Larsen Ice Shelf monitored by space images. Skvarca, P., [1993,eng] 48-1342
Features on the Ross Ice Shelf, Antarctica, studied with AVHRR satellite imagery and by modeling. Casassa, G., [1993,eng] 48-5431
First revisal of SMMR world map over western China. Li, P.J., et al, [1992,chi] 48-2017
First try at identification of sea ice using the three beam scatterometer of ERS-1. Gohin, F., et al, [1994,eng] 48-4471
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Geophysical field area fraction estimation. Key, J.R., [1993,eng] 48-2161
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] 48-4033
Glaciers of Norway. Østrem, G., et al, [1993,eng] 48-4030
Glaciers of Svalbard, Norway. Liestöl, O., [1993,eng] 48-4032
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307
Gravity field of the Ross Sea region from satellite altimetry. McAdoo, D.C., et al, [1994,eng] 48-3487
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
Greenland hoar formation indicated by brightness temperatures. Shuman, C.A., et al, [1993,eng] 48-4653
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] 48-1345
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] 48-3476

Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] 48-1505

Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] 48-4752

Ice processes. Augustein, E., et al, [1991,eng] 48-4867

Ice regimes from satellite microwave data. Comiso, J.C., [1993,eng] 48-1698

Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] 48-3441

Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] 48-131

Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al, [1992,eng] 48-2622

Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468

Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578

Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210

Identification of sea ice using NOAA satellite data. Zhang, L.X., et al, [1993,eng] 48-1064

Identification of sea ice zones by satellite scatterometer. Cavanié, A., et al, [1994,eng] 48-3483

IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678

Implications of the break-up of Wordie Ice Shelf, Antarctica for sea level. Vaughan, D.G., [1993,eng] 48-1674

Information extraction from ERS-1 SAR data in antarctic research. Hartl, P., et al, [1994,eng] 48-3475

Integrated geographic analysis system for snow cover monitoring. Baumgartner, M.F., et al, [1994,eng] 48-4930

Intercomparison of ERS-1 SAR, airborne SLAR and electromagnetic ice-thickness data. Ikeda, M., et al, [1994,eng] 48-3456

Italian glacier surface variations from LANDSAT data. Serandrei Barbero, R., et al, [1993,ita] 48-4111

Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201

LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997

Landsat linear features and mineral occurrences in Alaska. Metz, P.A., [1983,eng] 48-800

Landsat studies of antarctic snow surfaces. Winther, J.G., et al, [1993,eng] 48-1296

Large scale study of the microwave signature of the antarctic ice sheet. Fily, M., et al, [1991,eng] 48-3710

Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135

Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309

Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302

Measuring ice sheet changes with the ERS-1 altimeter. Wingham, D.J., et al, [1994,eng] 48-3436

Meridional zonation of the Barents Sea ecosystem. Mitchell, B.G., et al, [1991,eng] 48-4734

Mesh data sets of snow cover of the Northern Hemisphere. Masuda, K., et al, [1990,jpn] 48-3417

Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834

Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] 48-4384

Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436

Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480

Microwave spectral signatures over the antarctic ice sheet. Surdyk, S., et al, [1991,eng] 48-3711

Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992

Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] 48-3450

Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613

Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data. Wiesmann, A., et al, [1994,eng] 48-3469

MOS-1/MSR mosaic data sets. Inanaga, A., et al, [1993,jpn] 48-1058

Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452

Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] 48-4472

Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306

Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] 48-1055

New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874

NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097

North American snow cover variability, 1972-1993. Frei, A., et al, [1993,eng] 48-2926

Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] 48-683

Observation of drift ice and salt field in the Liaodong Bay, China, by MOS-1/MESSR. Ogata, S., [1998,eng] 48-4870

Observations on glaciers in the eastern Austrian Alps using satellite data. Bayr, K.J., et al, [1994,eng] 48-4929

Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] 48-3458

Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470

Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453

Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] 48-3467

Operational snow cover mapping by satellites and real time runoff forecasts. Seidel, K., et al, [1993,eng] 48-2779

Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471

Ozone mixing in the antarctic polar vortex. Bowman, K.P., et al, [1993,eng] 48-965

Pasterze Glacier, Austria. Bayr, K.J., et al, [1994,eng] 48-4928

Polar scene classification using multi-spectral methods. Chou, J., et al, [1994,eng] 48-4647

Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499

Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] 48-3433

Proceedings. International Symposium on Remote Sensing of Snow and Ice, Boulder, CO, May 17-22, 1992, [1993,eng] 48-1292

Production of icebergs and observed extreme drift speeds in the Barents Sea. Løset, S., et al, [1993,eng] 48-127

Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] 48-3461

Radar studies at the mouths of ice streams D and E, Antarctica. Jacobel, R.W., et al, [1993,eng] 48-1333

RADARSAT: Antarctic Mapping Project. Jezek, K.C., ed, et al, [1993,eng] 48-1915

Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351

Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] 48-1305

Radiometric derivations of Greenland ice sheet surface variations. Mote, T.L., et al, [1993,eng] 48-1328

Radiometry of the Weddell Sea during winter and spring. Grenfell, T.C., et al, [1994,eng] 48-4412

Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] 48-3474

Recognition of sea ice zones using ERS-1 scatterometer data. Lecomte, P., et al, [1993,eng] 48-1702

Refinements in the remote sensing of snow-covered area. Holroyd, E.W., III, et al, [1990,eng] 48-2426

Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332

Remote sensing analysis of Victoria Land ice shelves and ice tongues. Frezzotti, M., [1992,ita] 48-3288

Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] 48-4123

Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] 48-1728

Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761

Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] 48-4708

Report on polar low workshop. Rasmussen, E.A., et al, [1993,eng] 48-2459

Report on polar regions AVHRR workshop. Steffen, K., et al, [1993,eng] 48-1293

Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326

Results from ERS-1 radar altimetry ground truthing on the Filchner-Ronne- Schelfeis. Schenke, H.W., et al, [1994,eng] 48-3444

Review of Siple Coast Project ice sheet research. Bindschadler, R.A., [1993,eng] 48-3580

River ice conditions determined from ERS-1 SAR. Gatto, L.W., [1993,eng] 48-2935

SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479

SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137

Satellite climatology of 'polar lows' and broadscale climatic associations for the Southern Hemisphere. Carleton, A.M., et al, [1990,eng] 48-1425

Satellite data utilization for estimating ablation of debris covered glaciers. Nakawo, M., et al, [1993,eng] 48-2774

Satellite detection of sea ice leads—atmospheric factors. Key, J., et al, [1993,eng] 48-1327

Satellite detection of the boreal forest-tundra transition. Awaya, Y., et al, [1993,eng] 48-1697

Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] 48-4027

Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730

Satellite mapping of icebergs in the Barents Sea. Kloster, K., et al, [1993,eng] 48-126

Satellite measurements for studying the cryosphere. Rott, H., [1990,ger] 48-3126

Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] 48-1298

Satellite observations of Norwegian Sea polar low. Claud, C., et al, [1993,eng] 48-226

Satellite observations of oceans and ice. Jezek, K.C., et al, [1988,eng] 48-1467

Satellite radar altimetry over the continental ice sheets. Davis, C.H., [1992,eng] 48-806

Satellite remote sensing of snow and glacier inputs to river flow. Dedieu, J.P., [1990,fre] 48-1577

Satellite time series monitoring of Okhotsk Sea ice in 1992. Ishida, K., et al, [1993,jpn] 48-1067

Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] 48-3465

Sea ice information from satellite images (part 2). Aoshima, M., [1993,jpn] 48-1070

Sea ice lead dynamics from ERS-1 SAR. Stern, H.L., et al, [1994,eng] 48-3448

Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] 48-3449

Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594

Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] 48-3455

Sea ice motions in the central arctic pack ice as inferred from AVHRR imagery. Emery, W., et al, [1993,eng] 48-3281

Sea ice surface radiation flux from satellite data. Kergomard, C., et al, [1993,eng] 48-1323

Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1991,eng] 48-320

Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863

Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1993,eng] 48-2641

Sea ice-edge enhancement using polar-orbiting environmental satellite data. Lee, T.F., et al, [1993,eng] 48-314

Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459

Sea-ice detection in the Bohai Sea using the ATSR/M and AVHRR. Ezraty, R., et al, [1994,eng] 48-3462

Sea-ice features interpreted in a combination of multi sensor data. Ono, N., [1990,jpn] 48-4878

Sea-ice tracking on the east coast of Canada using NOAA AVHRR imagery. Heacock, T., et al, [1993,eng] 48-1356

Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159

Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460

Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] 48-4034

Seismological observatory at Georg von Neumayer Station. Wüster, J., et al, [1993,eng] 48-4153

Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500

SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631

SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464

Snow and glacier ice characteristics measured using Landsat TM data. Winther, J.G., [1993,eng] 48-1778

Snow area detection by using AVHRR/NOAA. Kazama, S., et al, [1993,eng] 48-1724

Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] 48-4874

Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482

Snow cover evaluation with satellite data. Sawamoto, M., et al, [1992,eng] 48-4447

Snow cover of an area according to observation data from stations and satellites. Usachev, V.F., et al, [1992,eng] 48-1768

Snow grain-size determination from Landsat imagery over Terre Adélie, Antarctica. Bourdelles, B., et al, [1993,eng] 48-1304

Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343

Snowline and climate in the Andes now and in the Pleistocene. Fox, A.N., [1994,eng] 48-3550

Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] 48-2775

Snowmelt runoff model using remote sensing. Koike, T., [1990,jpn] 48-3418

Spaceborne photography of permafrost changes in burned forests. Liang, F.X., et al, [1993,eng] 48-421

Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299

Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934

Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] 48-1062

SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670

Study of cloud and snow cover over Kinki district, west Japan. Inoue, J., [1990,eng] 48-4873

Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] 48-2363

Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332

Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1990,eng] 48-4876

Study on snow hydrology through application of MOS-1 satellite data. Ishihara, K., et al, [1998,eng] 48-4869

Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463

Surface reflectance of Hintereisferner, Austria, from Landsat 5 TM imagery. Koelemeijer, R., et al, [1993,eng] 48-1294
Surface state of subpolar glaciers from satellite data. Lefauconnier, B., et al, [1991,fre] 48-3713
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Synoptic observation of sea ice. Hattori, T., et al, [1990,jpn] 48-4877
Synthetic aperture radar imagery for operational ice analysis. Fetterer, F., et al, [1991,eng] 48-4737
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] 48-1330
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] 48-3447
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] 48-1300
Use of visible satellite imagery over ice sheets. Vaughan, D.G., et al, [1992,eng] 48-917
Utility of passive observations for operational sea ice modelling. Neralla, V.R., et al, [1993,eng] 48-4330
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] 48-3446
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] 48-3439
Water resources, snow and ice. Haefner, H., et al, [1991,eng] 48-4868

See [also]: LANDSAT

Spacecraft
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] 48-4831
Antenna for microwave remote sensing from geostationary orbit. Stutzman, W.L., ed, et al, [1991,eng] 48-3697
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Climate and global change—characteristics of NOAA satellite data. Ohring, G., et al, [1989,eng] 48-1820
Comparison of SMMR and SSM/I passive microwave data collected over Antarctica. Jezek, K.C., et al, [1993,eng] 48-1311
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
Freeze/thaw characteristics of room temperature heat pipes. Ochterbeck, J.M., [1994,eng] 48-3555
Global ozone depletion from TOMS, Jan. 1979 to Dec. 1991. Herman, J.R., et al, [1993,eng] 48-190
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
Multi-temporal microwave satellite observation of snowpacks. Wankiewicz, A., [1993,eng] 48-1315
New views for antarctic glaciology. Bindschadler, R.A., [1993,eng] 48-772
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] 48-1710
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Systematized approach to AVHRR image navigation. Baldwin, D.G., et al, [1993,eng] 48-1357
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] 48-2470

Spain
—Madrid
Snowmelt assessment in a complex system of reservoirs (Comunidad de Madrid). Cubillo, F., [1990,eng] 48-1595

—Pyrenees
Glaciers of the Pyrenees, Spain and France. Serrat, D., et al, [1993,eng] 48-4029
Glaciers of the Spanish Pyrenees. Arenillas, M., et al, [1993,ita] 48-4093

—Tenerife
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659

Specific retention (hydrology)
See [also]: Water retention

Specific volume
See [also]: Density (mass/volume)

Specifications
Avondale to build new icebreaker for USCG.[1993,eng] 48-3562
Empirical review of the design and performance of icebreakers. Dick, R.A., et al, [1989,eng] 48-3747
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Feasibility study for an ice-capable oceanographic ship. Strasel, E.S., et al, [1993,eng] 48-4253
Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base.[1991,eng] 48-3123
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Icebreaker *Louis S St Laurent* returns to service.[1993,eng] 48-3561
Icebreaker M/S Fennica—Finnish shipbuilding know-how at its best. Lindqvist, R., [1993,eng] 48-2339
NCMA and U.S. Army join forces to extend masonry work season. Schierhorn, C., [1993,eng] 48-2804
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] 48-4292
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
UCAR runway deicing fluid. Union Carbide Chemicals and Plastics, Inc., [1989,eng] 48-4017

See [also]: Building codes; Design criteria; Standards

Spectra
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Arctic stratospheric chemistry—winter 1989-90. Fiedler, M., et al, [1993,eng] 48-950
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044
Cloud properties inferred from 8-12 micron data. Strabala, K.I., et al, [1994,eng] 48-2886
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] 48-5024
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] 48-5056
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] 48-5032
Discrimination of ice from water in clouds by optical remote sensing. Pilewskie, P., et al, [1987,eng] 48-2087
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] 48-2145
Electron energy spectrum of ice. Petrenko, V.F., et al, [1993,eng] 48-1215
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] 48-341
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Far-infrared investigations of a methanol clathrate hydrate. Hudson, R.L., et al, [1993,eng] 48-3618
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] 48-1231
Infrared spectra of HCl-ice surfaces at cryogenic temperatures. Delzeit, L., et al, [1993,eng] 48-1673
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] 48-5478
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Irradiation of simulated cometary organic ices. Khare, B.N., et al, [1993,eng] 48-995
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] 48-2350
Low-frequency modes in amorphous ice. Svensson, E.C., et al, [1994,eng] 48-5025
Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309
Methanol ice in the protostar GL 2136. Skinner, C.J., et al, [1992,eng] 48-3617
Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689
Neutron diffraction study of the structure of deuterated ice VIII to 10 GPa. Nelmes, R.J., et al, [1993,eng] 48-2594
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
Neutron scattering spectra of amorphous, Ih and VI ice. Kolesnikov, A.I., et al, [1994,eng] 48-3620
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] 48-2051
OH radical formation in electron-irradiated ice. Miyazaki, T., et al, [1993,eng] 48-2052
Organic molecule production in cometary ice analogs. Schutte, W.A., et al, [1993,eng] 48-1751
Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] 48-2589
Predicting snow cover infrared spectral signature. Davis, R.E., et al, [1993,eng] 48-1313
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Quaternary records of climatic variability. Yiou, P., et al, [1994,eng] 48-5305
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Radiative properties of clouds. King, M.D., [1993,eng] 48-1881
Remotely sensed microwave signatures of antarctic firn. Rott, H., et al, [1993,eng] 48-1346
Role of ice crystals in cirrus radiative properties. Arnott, W.P., et al, [1994,eng] 48-4600
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] 48-2591
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Solid-state NMR of glycine in frozen solution. Appleyard, R.J., et al, [1993,eng] 48-4250
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] 48-213
Spectral contrasts between Callisto hemispheres. Calvin, W.M., et al, [1993,eng] 48-1750
Spectroscopic measurement BrO in the arctic troposphere. Hausmann, M., et al, [1992,eng] 48-2636
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
Spin probe study of frozen aqueous solutions. Mikhalev, O.I., et al, [1989,eng] 48-3756
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] 48-214
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] 48-2027
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] 48-1242

Spectroscopy
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] 48-5483
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] 48-5480
Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012
Arctic stratospheric chemistry—winter 1989-90. Fiedler, M., et al, [1993,eng] 48-950
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] 48-4044
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] 48-798
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] 48-5024
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] 48-5487
Ground-based measurements of column amounts of NO_2 over Syowa Station, Antarctica. Kondo, Y., et al, [1994,eng] 48-5030
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] 48-5484
Kinetics and photochemistry of halogen oxides relevant to the stratosphere. Mauldin, R.L., III, [1992,eng] 48-3300
Laser spectrometer for stratospheric trace gas measurement. Podolske, J.R., et al, [1993,eng] 48-2407
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459

Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] 48-5448
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-1092
Ozone distribution from UV-visible solar occultation. Pommereau, J.P., et al, [1994,eng] 48-5447
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] 48-5490
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] 48-5469
Remote controlled gamma spectrometers for on-line measurement of radioactive fallout. Berg, T.C., [1993,eng] 48-4557
Satellite observation of antarctic stratospheric chemistry. Roche, A.E., et al, [1993,eng] 48-623
Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] 48-3146
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] 48-5453
Spectroscopic measurement of bromine oxide, ozone, and nitrous acid in Alert. Hausmann, M., et al, [1993,eng] 48-3055
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] 48-3148
Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] 48-5458
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] 48-5485
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Thorium, uranium and plutonium in surface air at Vardö. Kolb, W., [1993,eng] 48-4548
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] 48-5482
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
Voyager imaging of Triton's clouds and hazes. Rages, K., et al, [1992,eng] 48-1608
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607
See [also]: Ice spectroscopy; Infrared spectroscopy

Spheres
Energy loss in collisions of icy spheres: loss mechanism and size-mass dependence. Dilley, J.P., [1993,eng] 48-2380

Spillways
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140

Spongy ice
Effect of air bubbles on radar backscattering by hailstones. Fujiki, N.M., et al, [1994,eng] 48-2887

Sporadic permafrost
Characteristics of relict permafrost on the West Siberian plain. Zemtsov, A.A., et al, [1993,eng] 48-3761

Spray
See [also]: Sea spray

Spray freezing
Delay of arctic shoreline erosion by artificial spray ice. Sackinger, W.M., et al, [1994,eng] 48-3974
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Study of the mechanical properties of spray ice. Instanes, A., et al, [1994,eng] 48-5564

Springs (water)
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] 48-3192
See [also]: Hot springs

Stability
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] 48-436
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Conditions for a load combination ice-earthquake. Klingmüller, O., et al, [1991,eng] 48-2633
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] 48-1103
Dynamic instability of seasonally thawing silty soils. Voznesenskiĭ, E.A., et al, [1994,eng] 48-4840
Dynamic loads on transmission line structures due to galloping conductors. Baenziger, M.A., et al, [1994,eng] 48-3809
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Effect of inclination on the load and lateral stability of floating piles in ice-rich permafrost. Morin, P., [1993,fre] 48-2351
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] 48-4657
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
Gas hydrates—geological perspective and global change. Kvenvolden, K.A., [1993,eng] 48-1509
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Heinrich-type glacial surges in a low-order dynamical climate model. Verbitskiĭ, M., et al, [1994,eng] 48-5370
Implications of iceberg dynamics for iceberg stability estimation. Bailey, R.C., [1994,eng] 48-3252
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
Novel H2-H2O clathrates at high pressures. Vos, W.L., et al, [1993,eng] 48-1757
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] 48-1897
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] 48-5506
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] 48-991
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Răty, R.K., [1992,eng] 48-1235
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
See [also]: Slope stability; Snow cover stability

Stabilization
See [also]: Channel stabilization; Snow stabilization; Soil stabilization

Standards
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Case for harmonization of (polar) ship rules. Santos-Pedro, V.M., [1994,eng] 48-4293
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] 48-1278
Construction heat engineering. Russia. Gosudarstvennyi komitet po delam stroitel'stva, [1986,rus] 48-1286
Design codes for arctic offshore structures. Shkhinek, K.N., et al, [1994,eng] 48-3024
Design standardization of snowsheds. Matsuhashi, H., et al, [1987,jpn] 48-552
Design values of strength characteristics of frozen saline soils. Trusov, E.N., et al, [1993,eng] 48-1102
Designing oil and gas facilities for Russia. Kulish, K.M., [1994,eng] 48-3029
Discussion of SNiP 2.02.04-88 norm "Bases and foundations on permafrost soils". Mirenburg, IU.S., et al, [1993,eng] 48-1103
Durability of high performance concrete. Zia, P., et al, [1993,eng] 48-2672
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Experiences with the CDF method for testing the frost de-icing salt resistance of concrete. Stark, J., et al, [1993,eng] 48-3559
Fluid, deicing/anti-icing, runways and taxiways: potassium acetate base.[1991,eng] 48-3123
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Global warming effects on structures built on permafrost soils. Khrustalev, L.N., et al, [1993,eng] 48-1756
Ice force probability issues. Nevel, D.E., [1992,eng] 48-1558
Ice load measurements for accreted ice on power lines. Bibby, I.P., et al, [1993,eng] 48-2022
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] 48-2757
Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] 48-2861
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] 48-4292
On the relevance of linear elastic fracture mechanics to ice. Abdel-Tawab, K., et al, [1992,eng] 48-1554
Protective clothing against cold. Holmér, I., [1992,eng] 48-4968
Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656
Special demands for ventilation system and product standards in cold climates. Railio, J., [1994,eng] 48-3858
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954
Standard design for fences to prevent snow collapse from cut slopes on highways. Murakuni, M., et al, [1987,jpn] 48-280
Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] 48-2700
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Verification of offshore structure foundation standards. Been, K., et al, [1993,eng] 48-1016
Warning system for snow avalanches. Terada, H., [1994,eng] 48-4933
Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938
See [also]: Building codes; Design criteria

Starters
See [also]: Engine starters

Static electricity
Effect of static electric fields on ice friction. Petrenko, V.F., [1994,eng] 48-4969

Static loads
Pile load test on large diameter steel pipe piles in Timan-Pechora, Russia. McKeown, S., et al, [1994,eng] 48-3388

Stations
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Construction of the new Neumayer Station in Antarctica. Enss, D., [1992,ger] 48-3243
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
GRIP deep drilling camp. Gundestrup, N.S., et al, [1994,eng] 48-5362
Plan of Dome-F Station for deep ice-coring by JARE. Takahashi, S., et al, [1994,eng] 48-5365
Rapid deployment of camp facilities utilizing point-supported structures. Mimken, V.B., et al, [1994,eng] 48-5364
Selection of an air pollution monitoring site. Yang, L.Y., et al, [1992,chi] 48-1483
Siting the DEW line radar stations. Brannian, J.D., [1957,eng] 48-290
See [also]: Drift stations; Weather stations

Statistical analysis
1990 temperature and precipitation during Northern Wetlands Study. Mortsch, I.F., [1994,eng] 48-4602
Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] 48-1764
Accuracy of ice core evidence for paleoclimatic warmings. Loehle, C., [1994,eng] 48-4643
Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] 48-4749
Air temperature in China and the arctic sea ice extent. Wu, C.D., et al, [1993,chi] 48-4586
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937
Analysing hydrometeorological time series for evidence of climatic change. Kite, G.W., [1993,eng] 48-1154
Approaches to find iceberg collision risks for fixed offshore platforms. Korsnes, R., et al, [1994,eng] 48-4264
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Carbon monoxide and methane over Canada: July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4620
Century of glacier fluctuations in the Lombard, Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107
Characteristics of snowdrifting: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1993,eng] 48-2394
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] 48-4113
Climatic fluctuations of the snow-day numbers at Plateau Rosà (Pennine Alps). Todaro, C., [1993,ita] 48-4114
Climatic interpretation of alpine snowline variations on millennial time scales. Seltzer, G.O., [1994,eng] 48-5063
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] 48-811
Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077
Comments on paper by Bustamante et al. Leggett, D.C., [1994,eng] 48-5417
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] 48-2360
Computation of sheet ice and ridge ice forces on a faceted cone. Wang, Z., et al, [1993,eng] 48-152
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
Correlation and prediction of snow water equivalent from snow sensors. McGurk, B.J., et al, [1992,eng] 48-3704

Correlation of studded tire use and road safety. Øberg, G., et al, [1993,swe] 48-4022
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Dangers of multiyear averaging in analyses of long-term climate trends. Parkinson, C.L., [1989,eng] 48-2362
Data analysis of icing measurements in Iceland. Eliasson, Á.J., et al, [1993,eng] 48-845
Data needs for detection of climate change: some challenges. Goodison, B.E., et al, [1993,eng] 48-1808
Deaths and injuries from snow accidents in Japan. Numano, N., [1993,jpn] 48-3185
Density of newly fallen snow along the coast of the Japan Sea. Yamada, Y., [1993,jpn] 48-4233
Development condition of cryosols in alpine and plateau regions of western China. Qiu, G.Q., et al, [1993,eng] 48-2277
Disaggregation models of seasonal streamflow forecasts. Grygier, J., et al, [1993,eng] 48-2955
Dry snow parameter stereology for microwave modeling. Shi, J.C., et al, [1993,eng] 48-1338
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Epidemiology of injuries in northern areas. Middaugh, J., [1992,eng] 48-4962
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] 48-2860
Estimating the weight of a snow cover using only meteorological factors. Shinojima, K., et al, [1993,eng] 48-2850
Estimation method of newly fallen snow depth. Yamada, Y., [1993,jpn] 48-4234
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] 48-813
Estimation of monthly precipitation by geographical factors and meteorological variables. Yamada, K., [1990,eng] 48-1588
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al, [1993,eng] 48-176
Evaluating snow risk potential in urban areas. Kitaura, M., et al, [1993,jpn] 48-1980
Evaluation of ERS-1 radar altimeter over non-ocean surfaces. Scott, R.F., et al, [1994,eng] 48-4695
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Evaluation of the level of acidification and the critical loads for alpine lakes. Marchetto, A., et al, [1994,eng] 48-5117
Freeze/frost data. Koss, W.J., et al, [1988,eng] 48-4399
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047
Glacial hazards in the Italian Alps. Dutto, F., et al, [1993,ita] 48-4100
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Glacier variations 1930-1960, 1960-1990 and 1989-1990. Sigurdsson, O., [1991,ice] 48-5293
Global warming: sea ice and snow cover. Walsh, J.E., [1992,eng] 48-2035
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] 48-3762
Greenland ice core "signal" characteristics: an expanded view of climatic change. Mayewski, P.A., et al, [1993,eng] 48-192
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Hundred year trends of Italian air temperature and snow accumulation. Palmieri, S., et al, [1993,ita] 48-4106
Hydrogen and oxygen isotopes and the origin of the ice in peat plateaus: discussion. Burn, C.R., et al, [1993,eng] 48-5053
Ice cover thickness distribution during a North Pole crossing. Tunik, A.L., [1994,eng] 48-3253
Ice impact load measurement aboard the icebreaker *Oden*. St. John, J., et al, [1994,eng] 48-4291
Ice loads on propellers of ice breaking ships. Andriushin, A.V., [1993,eng] 48-164
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] 48-615
Improving estimates of snowpack water equivalent using double sampling. Rovansek, R.J., et al, [1993,eng] 48-2940
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] 48-4235
Investigation on application of grey cognate analysis for snowmelt runoff forecast. Lan, Y.C., [1993,chi] 48-4577
Italian alpine climatic effects on glacier fluctuations. Rapetti, F., et al, [1993,ita] 48-4108
Lake ice conditions as climatic change indicator. Skinner, W.R., [1993,eng] 48-1807
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] 48-928
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] 48-810
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Meteorological estimation of relevant parameters for snow models. Durand, Y., et al, [1993,eng] 48-2829
Method for determining the anisotropic fracture toughness of ice. Stehn, L.M., et al, [1993,eng] 48-97
Method of evaluating the cost of snow removal. Sakai, T., et al, [1993,jpn] 48-3186
Method to estimate icing loads on overhead lines. Pezard, J., [1993,eng] 48-831
Methods of assessing the effects of climatic changes on snow and glacier hydrology. Kuhn, M., [1993,eng] 48-2780
Monitoring Northern Hemisphere snow cover. Robinson, D.A., [1993,eng] 48-1788
Non-simultaneous failure based on the random walk method. Harms, U., [1993,eng] 48-141
North American snow cover variability, 1972-1993. Frei, A., et al, [1993,eng] 48-2926
Northward migration of permafrost along the Mackenzie Highway and climatic warming. Kwong, Y.T.J., et al, [1994,eng] 48-5306
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
Numerical avalanche prediction: Kootenay Pass, British Columbia, Canada. McClung, D.M., et al, [1994,eng] 48-5171
Objective estimates of airborne snow properties. Hogan, A.W., [1994,eng] 48-3784
On the probability of extreme snow accumulation in an Austrian alpine river basin. Nobilis, F., [1986,ger] 48-609
Orientation of buried iceberg scours and other linear phenomena. Gipp, M.R., [1993,eng] 48-1830
Orthogonal regression study of frost heave in saline soil. Gao, J.P., et al, [1993,chi] 48-1450
Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Periodic Finnish coastal sea ice conditions. Seinä, A., [1994,fin] 48-4948
Permeability of temperate snow: preliminary links to microstructure. Hardy, J.P., et al, [1993,eng] 48-2939
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Precipitation environment in the Langtang Valley, Nepal Himalayas. Ueno, K., et al, [1993,eng] 48-2786
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Propeller thrust and torque in ice milling mode of icebreakers. Bitsula, A., et al, [1993,eng] 48-122
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Recent observed trends and modelled interannual variability in Canadian snow cover. Brown, R.D., et al, [1993,eng] 48-2968
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] 48-4130
Return period conversion coefficient for ground snow load on design. Takahashi, T., et al, [1993,jpn] 48-1995
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] 48-2091
Satellite microwave mapping of polar atmospheres. Elson, L.S., et al, [1993,eng] 48-2475
Sea ice gouging. Niedoroda, A.W., [1991,eng] 48-2680
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Short- and long-term variability of snow albedo. Winther, J.G., [1993,eng] 48-1158
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] 48-5080
Simulation of deuterium quadrupole coupling constant in ice. Eggenberger, R., et al, [1993,eng] 48-2204
Simultaneous winter sea-ice and atmospheric circulation anomaly patterns. Agnew, T., [1993,eng] 48-2347
Sixty years of research on Italian glacier fluctuations. Belloni, S., [1993,ita] 48-4096
Small-angle light scattering by crystalline particles within clouds. Shifrin, K.S., et al, [1989,eng] 48-1474
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] 48-2818
Snow avalanches in Iceland during winter 1989-1990. Magnusson, M.M., [1992,ice] 48-5317
Snow cover effect on summer temperature and precipitation. Wang, G.Y., et al, [1993,eng] 48-1718
Snow cover measurements and areal assessment of precipitation and soil moisture. Sevruk, B., ed. [1992,eng] 48-4009
Snow cover records from snow depth models. Hughes, M.G., et al, [1993,eng] 48-1803
Snow cover variability in the Great Plains of the United States: 1910-1988. Hughes, M.G., et al, [1993,eng] 48-2925
Snow water equivalent estimates from spatial modeling of data. Carroll, S.S., et al, [1993,eng] 48-2931
Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. Powell, D.R., et al, [1993,jpn] 48-1965
Snowfall trends over the U.S. and Canada. Groisman, P.IA., et al, [1994,eng] 48-2892
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] 48-4965
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] 48-4909
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] 48-812
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Statistical analysis of offshore structure loading probabilities. Bea, R.G., [1993,eng] 48-2685
Statistical detection of climate change. MacNeil, I.B., [1993,eng] 48-1798
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] 48-1303
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Subsurface scattering and ice sheet altimetry. Davis, C.H., [1993,eng] 48-1709
Summary report on national sea-ice forecasting techniques. World Meteorological Organization. Secretariat, [1989,eng] 48-2502
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4373
Suppression of sea-ice clutter and detection of targets. Chikara, S., et al, [1990,jpn] 48-4684
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] 48-809
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Total ozone variations at Reykjavík since 1957. Bjarnason, G.G., et al, [1993,eng] 48-2476
Traffic on ice and snow. Øberg, G., [1993,eng] 48-5061
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Variation of energy consumption in dwellings due to climate, building and inhabitants. Pettersen, T.D., [1994,eng] 48-3871
Vector analysis of ice-fabric data. Ferrick, M.G., et al, [1993,eng] 48-2392
Vessel icing in Alaskan waters—1979 to 1984 data set. Pease, C.H., et al, [1985,eng] 48-1143
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] 48-2088

Steam

Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] 48-2045
Use of steam-gas plants in Northern regions. Stepanov, I.R., [1992,rus] 48-4150

Steam curing

See [also]: Concrete curing

Steel structures

Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] 48-4129
Effect of electric current on the adhesion of ice to metal piles. Paasivuori, P., et al, [1994,eng] 48-3965
Freeze/thaw resistance of steel/concrete hybrid structures. Tamura, K., et al, [1991,eng] 48-4041
Link rod for aircraft deicer vehicle. Vestergaard, G., [1993,eng] 48-4960
Metal corrosion in various USSR climatic regions. Panchenko, IU.M., et al, [1993,eng] 48-2379
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] 48-5312
Types of limiting conditions and factors which govern the cold resistance of supporting structures. Kuz'min, V.R., [1990,rus] 48-57

Steels
Adhesion of fresh and saline ice to bare and coated steel surfaces. Nelson, W.G., et al, [1994,eng] 48-3022
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Deformation of a pressure vessel during failure caused by a technological defect. Ammosov, A.P., et al, [1990,rus] 48-55
Design of icebreaker bows. Herkens, H., [1993,eng] 48-104
Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] 48-3981
Dynamic study of common well screen materials. Hewitt, A.D., [1993,eng] 48-719
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion. Borisov, V.E., et al, [1990,rus] 48-59
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels. Makarova, I.P., et al, [1990,rus] 48-56
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] 48-2143
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] 48-2080
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] 48-5393
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Tests of metal materials and structures at low climatic temperatures; collected scientific papers. Malinin, N.I., ed, [1990,rus] 48-49
Types of limiting conditions and factors which govern the cold resistance of supporting structures. Kuz'min, V.R., [1990,rus] 48-57
Welding of quenched and tempered steel at low temperatures. Lagerqvist, O., et al, [1994,eng] 48-3982

Stefan problem
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] 48-2573
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Modeling of snowpack melting variations. Tseng, P.H., et al, [1994,eng] 48-5387
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Numerical and experimental study of the artificial freezing of sand. Gioda, G., et al, [1994,eng] 48-4038
Perturbation techniques in phase change heat transfer. Aziz, A., et al, [1993,eng] 48-1604
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] 48-5211

Steppes
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Degradation and protection of grassland on the Qinghai-Tibet Plateau. Yang, D.G., [1992,eng] 48-4411
Different view of Quaternary glaciation and environment in Tanzhesi area of Western Mountain, Beijing. Guo, X.D., et al, [1993,chi] 48-4590
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine. Manukalo, V.A., et al, [1993,rus] 48-2075
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Means of optimizing the water regime of soils in the steppe landscapes of Siberia. Kochurov, B.I., [1990,rus] 48-2073
Paleoclimate characteristics in Xinjiang since the late Pleistocene. Pan, A.D., [1993,eng] 48-5230
Plant resources of Siberia: their contemporary state and protection. Koropachinskiĭ, I.IU., et al, [1994,eng] 48-2479

Stereomapping
Polar continental margins: studies off East Greenland. Mienert, J., et al, [1993,eng] 48-2149

Stereophotography
Accurate measurement of densities of snowflakes using 3-D microphotographs. Ishizaka, M., [1993,eng] 48-2833
Glaciological remote sensing performance of Russian satellite camera. Dowdeswell, J.A., et al, [1993,eng] 48-1307

Stereotemplate triangulation
See [also]: Stereomapping

Storage
Carbon storage in Russian forest tundra. Karelin, D.V., et al, [1994,eng] 48-4822
Construction of ice domes at Asuka Station. Ishizawa, K., et al, [1993,eng] 48-1182
Report on Alaska's oil-spill response 1991-92. Marilyn Heiman and Associates, [1993,eng] 48-4046
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
Use of fly ash aggregates to enhance concrete freeze-thaw durability. Gifford, P.M., et al, [1993,eng] 48-956
See [also]: Cold storage; Ice (water storage); Oil storage; Snow retention; Underground storage; Water storage

Storage tanks
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Calmac ice storage test report. Stovall, T.K., [1991,eng] 48-3676
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] 48-5391
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] 48-5393
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] 48-5394
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
UCAR aircraft deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4042
UCAR runway deicing fluid typical storage system. Union Carbide Corporation, [1987,eng] 48-4043
Water tank cathodic protection system. Garlinger, R.A., [1990,eng] 48-2170
See [also]: Tanks (containers)

Storms
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] 48-617
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Norwegian beach emergence since deglaciation. Fletcher, C.H., III, et al, [1993,eng] 48-3799
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] 48-1960
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] 48-4725
See [also]: Ice storms; Snowstorms; Thunderstorms

Strain measuring instruments
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] 48-91
Embedded optical fiber ice stress gauge. Phase 1. Final report. Kollé, J.J., [1991,eng] 48-3666
Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] 48-2621

Strain relaxation
See [also]: Relaxation (mechanics)

Strain tests
Calibration of a portable ice strength testing apparatus. Gulati, K.C., et al, [1993,eng] 48-91
Compression tests on freshwater and sea ice samples. Kovacs, A., [1993,eng] 48-93
Compressive failure of polycrystalline ice under impact. Dutta, P.K., [1993,eng] 48-4325
Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] 48-1399
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Creep and failure of ice under monotonic loading. Fish, A.M., [1993,eng] 48-4332
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Ductile to brittle transition in polycrystalline ice under compression—final report. Schulson, E.M., [1993,eng] 48-1275
Dynamic strength and deformation properties of saturated frozen silt. He, P., et al, [1993,chi] 48-1447
Effect of crystal orientation on behaviour of columnar grained sea ice. Zhan, C., et al, [1994,eng] 48-3023
Experimental study of shear creep of frozen fine sand. Mi, H.Z., et al, [1992,eng] 48-1401
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] 48-4213
Glaciology and Global Positioning System at upstream B and from CASERTZ. Whillans, I.M., [1992,eng] 48-2621
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Influence of various factors on dynamic elastic modulus of frozen silt. He, P., et al, [1992,chi] 48-1420
Instantaneous-state deformation and strength behaviour of frozen soil. Zhang, Z.X., et al, [1993,eng] 48-502
Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] 48-1555
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Laboratory tests of ship structures under ice loading. Vols. 2 and 3. Tuhkuri, J., [1993,eng] 48-1963
Measurement of horizontal stress in soil by freezing. Hatanaka, M., et al, [1990,eng] 48-2268
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403
Model ice forces on a multi-faceted cone. Lau, M., et al, [1993,eng] 48-144
New method for predicting the long-term strength of frozen soils. Roman, L.T., et al, [1992,eng] 48-1405
Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] 48-4916
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] 48-2219
Rate effects in brittle ice crushing. Kärnä, T., et al, [1993,eng] 48-92
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Study of fracture toughness and fatigue of freshwater ice. Weber, L.J., [1994,eng] 48-3546
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013

Strains
Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] 48-4817
Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] 48-2868
Patterns of calculated basal drag on Ice Streams B and C, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3569
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
Strain and velocity determination on Ronne Ice Shelf. Möller, D., et al, [1992,eng] 48-244

Stratification
Debris flows involved in the development of Pleistocene stratified slope deposits. Van Steijn, H., [1988,eng] 48-2561
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Problems of the geomorphology of glaciated shelves. Iotsin, A.S., et al, [1993,eng] 48-2539
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] 48-69
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] 48-4247
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
See [also]: Firn stratification; Snow stratigraphy

Stratigraphy
Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929
Analysis of antarctic pack ice physical properties. Jeffries, M.O., et al, [1994,eng] 48-2812
Analysis of Siberian fossil glacier ice. Vaikmäe, R., et al, [1993,eng] 48-1009
Arctic Ocean Pleistocene-Holocene sedimentation rates. Stein, R., et al, [1994,eng] 48-5641
Baffin I. environment of the last 11,000 years. Andrews, J.T., [1985,eng] 48-2727
Barents Sea sedimentation dynamics and paleoenvironment. Poole, D.A.R., et al, [1994,eng] 48-4986
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Carboniferous calcretes in the Canadian Arctic. Theriault P. et al, [1993,eng] 48-1537
Cenozoic glacial record of the Prydz Bay continental shelf. Hambrey, M.J., et al, [1991,eng] 48-3630
Cenozoic glacial sequences as recorders of antarctic ice sheet fluctuations. Cooper, A.K., et al, [1993,eng] 48-3291
Climatic changes and permafrost formation in China. Zhao, L., et al, [1993,eng] 48-503
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] 48-3131
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] 48-4990
Earth's glacial record. Deynoux, M., ed, [1994,eng] 48-5037
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263
Geological, geochemical, and operational summary, Aurora Well, Paul, L.E., et al, [1994,eng] 48-3329

Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] 48-3232
High-resolution diatom stratigraphy of Quaternary sediments from the Scotia Sea. Jordan, R.W., et al, [1992,eng] 48-5094
High-resolution dielectric profiling of ice cores. Moore, J.C., [1993,eng] 48-2387
Holocene glacial activity in western Norway. Nesje, A., et al, [1993,eng] 48-604
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Hydrocarbon maturity indicators and Melville I. lithology. Gentzis, T., et al, [1993,eng] 48-3231
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Late Quaternary glacial sequence on the south slope of the Lenglongling, Qilian Mountains. Kang, J.C., et al, [1992,chi] 48-2015
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725
Laurentide ice sheet development following the last interglaciation. Clark, P.U., et al, [1993,eng] 48-2878
Lithology of some Rhine glacier drumlins. Ellwanger, D., [1992,eng] 48-2522
Marine geology of the Arctic Ocean—summary. Vorren, T.O., et al, [1994,eng] 48-5642
Microbiological and biogeochemical research in permafrost: paleoecological implications. Gilichinskiĭ, D.A., et al, [1993,eng] 48-518
Mongolian periglacial phenomena. Cui, Z.J., et al, [1993,eng] 48-369
Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098
New chemical stratigraphy over the last millenium for Byrd Station, Antarctica. Langway, C.C., Jr., et al, [1994,eng] 48-2915
New data on the presence of permafrost in Aquitaine during the last glaciations. Texier, J.P., et al, [1993,fre] 48-5047
North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760
Origin of Icelandic glaciomarine sediments. Geirsdóttir, A., et al, [1994,eng] 48-4989
Paleobotanical study of West Greenland fossil vegetation. Boyd, A., [1993,eng] 48-208
Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] 48-972
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499
Palynostratigraphy of Quaternary deposits on a Norwegian island. Alm, T., [1993,eng] 48-1008
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Permafrost history of the Pleistocene Mackenzie Delta. Murton, J.B., et al, [1993,eng] 48-440
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] 48-4045
Pleistocene glacial deposits on Scandinavian ice sheet margins. Raukas, A., et al, [1993,eng] 48-1010
Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971
Pleistocene of North West Europe. Bowen, D.Q., [1992,eng] 48-4770
Pleistocene stratigraphy of the Erie and Ontario lake bluffs in New York. Calkin, P.E., et al, [1992,eng] 48-1928
Proceedings. International Drumlin Symposium, 3rd, Oulu, Finland, June 26- July 2, 1990, [1992,eng] 48-2514
Pump freeze corer for recent sediments. Renberg, I., et al, [1993,eng] 48-1527
Quaternary geology of Wollaston Peninsula, Victoria Island, Northwest Territories. Sharpe, D.R., [1992,eng] 48-3934
Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] 48-4991
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Radiocarbon dating organic detritus: implications for studying ice sheet dynamics. Punning, J.M., et al, [1993,eng] 48-3610
Reworked Jurassic-Neogene calcareous nannofossils in the central Arctic. Gard, G., et al, [1994,eng] 48-5638
Ronne Ice Shelf physical properties. Eicken, H., et al, [1994,eng] 48-5175
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
Sedimentology of Colour Lake, N.W.T., Canada. Doran, P.T., [1993,eng] 48-2420
Sedimentology of Wartanian outwash near Belchatów, central Poland. Krzyszkowski, D., [1994,eng] 48-4988
Slope-waste deposits in the Italian Apennines. Coltorti, M., et al, [1988,eng] 48-2562
Stratigraphy, age and origin of massive ice, Yamal Peninsula, West Siberia. Solomatin, V.I., et al, [1993,eng] 48-533
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292
Structural characteristics of antarctic land-fast sea ice. Jeffries, M.O., et al, [1993,eng] 48-2385
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049
Thermoluminescence dating of buried Finnish podsol. Hütt, G., et al, [1993,eng] 48-3796
Till in the marine environment. King, L.H., [1993,eng] 48-5014
Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236
Weichselian ice-wedge formation in Netherlands floodplains. Vandenberghe, J., et al, [1993,eng] 48-471
See [also]: Firn stratification; Snow stratigraphy

Stratosphere
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
Ab initio characterization of ClOOH: implications for atmospheric chemistry. Lee, T.J., et al, [1993,eng] 48-2316
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Acidic stabilization of arctic stratospheric ice particles. Peter, T., et al, [1994,eng] 48-5472
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] 48-5497
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] 48-5451
Airborne Arctic Stratospheric Expedition II: an overview. Anderson, J.G., et al, [1993,eng] 48-2577
Airborne infrared sounding of the arctic stratosphere. Blom, C.E., et al, [1994,eng] 48-5477
Airborne measurements of arctic stratospheric ozone. Pfeilsticker, K., et al, [1994,eng] 48-5483
Airborne spectroscopy of arctic winter stratosphere. Toon, G.C., et al, [1992,eng] 48-2637
Airborne spectroscopy of polar stratospheric chemical properties. Brandtjen, R., et al, [1994,eng] 48-5480
Aircraft measurements of ClO and HCl during EASOE 1991/92. Crewell, S., et al, [1994,eng] 48-5457
Annual variation of tropospheric ozone and estimates of tropospheric-stratospheric exchange. Gruzdev, A.N., et al, [1992,eng] 48-3764
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] 48-2327
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Atmospheric ozone study (Ozone-90). Zaĭtseva, N.A., ed, et al, [1993,rus] 48-2483
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] 48-5466
Balloon-borne mass spectrometer measurements of HCL and HF in the winter arctic stratosphere. Arnold, F., et al, [1994,eng] 48-5454
Balloon-borne observations of arctic stratospheric ice particles. Deshler, T., et al, [1994,eng] 48-5471
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-964
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] 48-2590
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Case study in forecasting the stratospheric vortex during EASOE. Carver, G.D., et al, [1994,eng] 48-5500
Chemical depletion of ozone in the Arctic lower stratosphere during winter 1992-93. Manney, G.L., et al, [1994,eng] 48-5124
Chlorine activation during polar night. Müller, R., et al, [1993,eng] 48-3639
Chlorine threat to stratospheric ozone. Waters, J.W., [1993,eng] 48-2666
Chlorine-induced ozone depletion in the arctic stratosphere. Müller, R., et al, [1994,eng] 48-5494
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] 48-626
Condensed phase dynamics of OClO. Dunn, R.C., [1993,eng] 48-1025
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] 48-5441
Dynamics of the arctic polar vortex during the EASOE campaign. Farman, J.C., et al, [1994,eng] 48-5439
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] 48-5487
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] 48-4048
Evaluation of SKYHI general circulation model, pt.1. Strahan, S.E., et al, [1994,eng] 48-4844
Evaluation of SKYHI general circulation model, pt.2. Strahan, S.E., et al, [1994,eng] 48-4845
Evolution of ClO and NO along air parcel trajectories. Schoeberl, M.R., et al, [1993,eng] 48-2579
Freezing of stratospheric aerosol droplets. Luo, B.P., et al, [1994,eng] 48-5499
Ground-based FTIR measurements of $ClONO_2$ vertical column amounts in the Arctic. Notholt, J., et al, [1994,eng] 48-5479
Ground-based measurements of Greenland stratospheric chemistry. Perner, D., et al, [1994,eng] 48-5481
Ground-based stratospheric NO_2 monitoring at Keflavik (Iceland) during EASOE. Van Roozendael, M., et al, [1994,eng] 48-5484
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] 48-3730
Heterogeneous reactions in sulfuric acid aerosols: a framework for model calculations. Hanson, D.R., et al, [1994,eng] 48-3151
HNO_3 profiles obtained during the EASOE campaign. Murcray, F.J., et al, [1994,eng] 48-5446
Importance of the reactions between OH and ClO for stratospheric ozone. Toumi, R., et al, [1993,eng] 48-2575
Influence of climate change on arctic ozone depletion. Austin, J., et al, [1994,eng] 48-4596
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Infrared spectrometry of arctic stratospheric chemistry. Oelhaf, H., et al, [1994,eng] 48-5456
Infrared spectroscopy of atmospheric trace gases above Spitsbergen. Notholt, J., et al, [1994,eng] 48-5478
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Infrared studies of sulphuric acid films. Middlebrook, A.M., et al, [1993,eng] 48-3638
Interferometer measurements of O_3, HNO_3 and $ClONO_2$ over the Arctic. Von Clarmann, T., et al, [1993,eng] 48-3640
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] 48-4595
Investigation of stratospheric ozone in the Arctic with the aid of a ground-based microwave spectrum analyzer. Kulikov, IU.IU., et al, [1993,rus] 48-2496
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Kinetics and photochemistry of halogen oxides relevant to the stratosphere. Mauldin, R.L., III, [1992,eng] 48-3300
Laser spectrometer for stratospheric trace gas measurement. Podolske, J.R., et al, [1993,eng] 48-2407
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] 48-5461
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] 48-5498
Lidar measurements of simulated polar stratospheric clouds. Flesia, C., et al, [1993,eng] 48-2987
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] 48-5474
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] 48-5473
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] 48-5467
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] 48-5464
Major results from SAGE II. Poole, L.R., et al, [1993,eng] 48-3732
Measurement of negative ions in the arctic stratosphere. Krieger, A., et al, [1994,eng] 48-5455
Measurement of stratospheric NO_2 by ISAMS. Reburn, W.J., et al, [1993,eng] 48-4219
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] 48-630
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station. Gerber, L., et al, [1994,eng] 48-5460
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Modeling of antarctic ozone hole dynamics. Mahlman, J.D., et al, [1994,eng] 48-3037
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Moon as light source for spectroscopy of arctic stratosphere. Notholt, J., [1994,eng] 48-3150
New observations of the NOy/N_2O correlation in the lower stratosphere. Loewenstein, M., et al, [1993,eng] 48-2582
Nitrous oxide as an indicator of arctic vortex dynamics. Emmons, L.K., et al, [1994,eng] 48-5459
Northern Hemisphere chlorine activation by polar stratospheric clouds. MacKenzie, A.R., et al, [1994,eng] 48-5493
Observations of the vertical distribution of stratospheric OClO. Pommereau, J.P., et al, [1994,eng] 48-5448
One-dimensional microphysical numerical model of the formation and evolution of polar stratospheric clouds. Ovchinnikov, M.V., et al, [1993,rus] 48-2493
Overview of the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5438
Ozone hole reaches new low. Kerr, R.A., [1993,eng] 48-997
Ozone measurement in the polar stratosphere during AASE II. Collins, J.E., Jr., et al, [1993,eng] 48-2585
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] 48-4013
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] 48-5490

Photochemical mechanism of the spring anomaly in the stratospheric ozone in Antarctica. Deminov, I.G., [1993,rus] **48-2492**

Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] **48-2315**

Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] **48-5469**

Preliminary results of the European arctic campaign. Pommereau, J.P., [1993,eng] **48-3731**

Rapid descent of mesospheric air into the stratospheric polar vortex. Fisher, M., et al, [1993,eng] **48-627**

Reaction of ClO with NO_3: OClO formation and night-time O_3 loss. Toumi, R., [1994,eng] **48-5509**

Reactive nitrogen species ratios in the polar atmosphere. Kawa, S.R., et al, [1993,eng] **48-2578**

Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] **48-5506**

Results of measurements of negative ion concentration in the Arctic stratosphere. Ermakov, V.I., et al, [1993,rus] **48-2494**

Satellite spectrometer for stratospheric ozone monitoring. Yokota, T., et al, [1993,eng] **48-1710**

Satellite spectrometry of global ozone variations. Herman, J.R., et al, [1994,eng] **48-3146**

Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] **48-5005**

Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] **48-5495**

Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] **48-5508**

Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] **48-5465**

Spectrometer for aerial measurements of stratospheric chemicals. Webster, C.R., et al, [1994,eng] **48-4483**

Spectrometry of nitric acid in the winter arctic stratosphere. Spreng, S., et al, [1994,eng] **48-5453**

Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] **48-3148**

Spectroscopy of arctic polar night stratospheric gases. Notholt, J., et al, [1993,eng] **48-1361**

Spectroscopy of chlorine monoxide in the Greenland atmosphere. De Zafra, R.L., et al, [1994,eng] **48-5458**

Springtime stratospheric water vapour in the southern hemisphere as measured by MLS. Harwood, R.S., et al, [1993,eng] **48-625**

Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] **48-4067**

Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] **48-5463**

Stratospheric aerosol increase after Mt. Pinatubo eruption. Iwasaka, Y., et al, [1993,eng] **48-1868**

Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] **48-5468**

Stratospheric aerosol variations in the polar vortex. Borrmann, S., et al, [1993,eng] **48-2587**

Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] **48-5485**

Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] **48-624**

Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] **48-4698**

Stratospheric NOy measurements on the NASA DC-8 during AASE II. Weinheimer, A.J., et al, [1993,eng] **48-2588**

Stratospheric ozone depletion by ClONO2 photolysis. Toumi, R., et al, [1993,eng] **48-336**

Stratospheric ozone layer—an overview. Peter, T., [1994,eng] **48-2745**

Stratospheric ozone variations in the European Arctic. Taalas, P., et al, [1994,eng] **48-5442**

Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] **48-5476**

Stratospheric volcanic aerosols and PSCs over Spitsbergen. Beyerle, G., [1994,eng] **48-3925**

Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] **48-5449**

Stratospheric waves in temperature and ozone. Fishbein, E.F., et al, [1993,eng] **48-4221**

Studies of dynamical processes affecting the distribution of stratospheric ozone. Bowman, K.P., [1993,eng] **48-1901**

Sulfate aerosols and polar stratospheric cloud formation. Tolbert, M.A., [1994,eng] **48-3734**

Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] **48-5489**

Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] **48-5505**

Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] **48-5503**

Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] **48-5482**

Total ozone related to stratospheric temperature over Showa Station. Chubachi, S., [1993,eng] **48-593**

Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] **48-5452**

Trajectory model of Northern Hemisphere atmospheric chemistry. Lutman, E.R., et al, [1994,eng] **48-5492**

Transport out of the lower stratospheric arctic vortex by Rossby wave breaking. Waugh, D.W., et al, [1994,eng] **48-4594**

Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] **48-5462**

Two-dimensional model of the stratosphere. 2. Schneider, H.R., et al, [1993,eng] **48-3637**

Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] **48-5450**

Uptake of formaldehyde by sulfuric acid solutions: impact on stratospheric ozone. Tolbert, M.A., et al, [1993,eng] **48-592**

Variation of available chlorine, Cly, in the arctic polar vortex during EASOE. Schmidt, U., et al, [1994,eng] **48-5444**

Visualizing the evolution of the stratospheric polar vortex in January 1992. Norton, W.A., et al, [1994,eng] **48-5501**

Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] **48-5496**

Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] **48-5470**

Weather contributes to record ozone loss. Walker, G., [1993,eng] **48-996**

Wintertime measurements of stratospheric HNO_3 as part of the ISY Polar Ozone Project. Fast, H., et al, [1993,eng] **48-2586**

Stream flow

Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] **48-2794**

Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] **48-2341**

Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] **48-137**

Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] **48-285**

Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] **48-944**

Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] **48-3510**

Can avalanche activity alter the pattern of snowmelt runoff from high-mountain basins. De Scally, F.A., [1993,eng] **48-2947**

Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] **48-2768**

Disaggregation models of seasonal streamflow forecasts. Grygier, J., et al, [1993,eng] **48-2955**

Estimating total snow volume in a small alpine watershed. Davis, R.E., et al, [1993,eng] **48-2945**

Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] **48-2773**

Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] **48-1870**

Glacier runoff and streamflow in Central Asia. Aizin, V.B., et al, [1993,eng] **48-2783**

Glaciohydrological features of the Karakoram Himalaya. Young, G.J., et al, [1993,eng] **48-2791**

Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] **48-2378**

Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] **48-3531**

Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] **48-3526**

Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] **48-3258**

Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] **48-3044**

Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] **48-2949**

Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] **48-3007**

Interactive calibration for the SSARR watershed model. Rockwood, D.M., et al, [1993,eng] **48-2954**

Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] **48-4973**

Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] **48-5591**

Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] **48-986**

Modeling for water supply forecasting in the West. Garen, D.C., [1993,eng] **48-688**

Object-oriented methods for hydrologic modeling and remote sensing. McKim, H.L., et al, [1993,eng] **48-683**

Operational snow cover mapping by satellites and real time runoff forecasts. Seidel, K., et al, [1993,eng] **48-2779**

Role of meltwater in major river systems of Nepal. Sharma, K.P., [1993,eng] **48-2778**

Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] **48-490**

Role of snowmelt in generating streamflow during spring in east Nepal. Kattelmann, R.C., [1993,eng] **48-2777**

Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] **48-1159**

Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] **48-1752**

Snow and glacier hydrology. Young, G.J., ed, [1993,eng] **48-2766**

Snowmelt and water quality changes in small rivers. Symader, W., et al, [1993,eng] **48-1776**

Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] **48-1774**

Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] **48-1151**

Snowmelt runoff forecasting studies in Himalayan basins. Kumar, V.S., et al, [1993,eng] **48-2775**

Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] **48-3209**

Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] **48-2602**

Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] **48-2788**

Streamflow simulation of Satluj River in the western Himalayas. Singh, P., et al, [1993,eng] **48-2790**

Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] **48-2329**

Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] **48-2664**

Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] **48-65**

Water resources data for Alaska, water year 1992. Kemnitz, R.T. et al, [1993,eng] **48-1462**

Yukon Territory snow survey bulletin and water supply forecast, April 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] **48-4006**

Yukon Territory snow survey bulletin and water supply forecast, March 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] **48-3264**

Yukon Territory snow survey bulletin and water supply forecast, May 1, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] **48-4127**

Yukon Territory snow survey bulletin and water supply forecast, May 15, 1994. Canada. Indian and Northern Affairs. Water Resources Division, [1994,eng] **48-4126**

See [also]: River flow; Runoff

Streams

Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] **48-3008**

Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] **48-2055**

McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] **48-3038**

See [also]: Rock streams

Streets

Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] **48-5076**

Strength

High temperature tests and methods of describing the changes in the characteristics of low-alloy steels. Makarova, I.P., et al, [1990,rus] **48-56**

See [also]: Bearing strength; Concrete strength; Flexural strength; Frozen ground strength; Frozen rock strength; Ice cover strength; Ice strength; Impact strength; Shear strength; Snow strength; Soil strength; Tensile properties; Ultimate strength

Stress concentration

Brittle compressive failure of salt-water columnar ice under biaxial loading. Smith, T.R., et al, [1994,eng] **48-5163**

Calculation of frost heave stress acting on the foundation bottom. Tang, S.C., [1993,eng] **48-462**

Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] **48-4567**

Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] **48-3973**

Development of fabric in ice. Van der Veen, C.J., et al, [1994,eng] **48-3251**

Finite-element simulation of ice-sheet indentation. Khoo, H.A., et al, [1994,eng] **48-4817**

Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] **48-1005**

Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] **48-1362**

Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] **48-5167**

Influences of aerodynamic forces in ice shedding. Scavuzzo, R.J., et al, [1994,eng] **48-4829**

Interplay between damage and fracture in ice-structure interaction. Jordaan, I.J., et al, [1992,eng] **48-1555**

Method of determining the stress of local flow in areas of stress concentration at low climatic temperatures. Novopashin, M.D., et al, [1990,rus] **48-61**

Microstructure-based constitutive law for snow. Mahajan, P., et al, [1993,eng] **48-2868**

Pack ice driving forces inferred from MOLIKPAQ ice loads. Wright, B., et al, [1992,eng] **48-1556**

Penetration fracture of sea ice plate: simplified analysis and size effect. Bažant, Z.P., et al, [1994,eng] **48-4816**

Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] **48-4181**

Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] **48-2219**

Scale effects in distribution of the floe internal stresses. Sukhorukov, K.K., [1994,eng] **48-5583**

Size effect on pack ice driving forces. Croasdale, K.R., et al, [1992,eng] **48-1557**

Snow layers as avalanche triggers. Schweizer, J., [1993,eng] **48-2851**

Stress distribution during ice indentation. Frederking, R.M.W., et al, [1992,eng] **48-1539**

Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] **48-4448**

Stress relaxation
See [also]: Relaxation (mechanics)
Stress strain diagrams
Brittle to ductile transition of ice in compression. Nixon, W.A., [1994,eng] **48-3013**
Buckling of geodesic domes under snow loads. Part 8. Sugino, H., et al, [1993,jpn] **48-1999**
Constitutive relations of frozen soil in uniaxial compression. Zhu, Y.L., et al, [1992,eng] **48-1399**
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] **48-3394**
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites. Madhukar, M.S., et al, [1994,eng] **48-5150**
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] **48-2536**
Practical elastic moduli for polycrystalline ice. Derradji-Aouat, A., et al, [1994,eng] **48-3014**
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] **48-5393**
Proportional strain tests of fresh-water ice rubble. Løset, S., et al, [1993,eng] **48-2219**
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] **48-68**
Strength and yield criteria of frozen soil. Ma, W., et al, [1992,chi] **48-1417**
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] **48-5395**
Strengthening of marginal soils by confined stone columns. Bauer, G.E., et al, [1994,eng] **48-3355**
Theoretical and experimental results of using binders for snow roads and runways in Antarctica. Barber, M., et al, [1993,eng] **48-1171**
Stresses
Deformation of a pressure vessel during failure caused by a technological defect. Ammosov, A.P., et al, [1990,rus] **48-55**
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] **48-3574**
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] **48-4838**
Sticky spots under ice streams. Alley, R.B., [1992,eng] **48-2623**
See [also]: Cold stress; Shear stress; Strength; Tensile properties; Thermal stresses
Striations
Glacial striated rocks near Zirl and Würm-glacial erosion in the central Inn valley. Patzelt, G., [1977,ger] **48-3313**
Highly mobile Laurentide ice sheet revealed by satellite images of glacial lineations. Boulton, G.S., et al, [1990,eng] **48-1505**
Ice flow and glacial transport in lower St. Lawrence, Quebec. Rappol, M., [1993,eng] **48-3261**
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] **48-2671**
Soft-sediment striated surfaces and massive diamicton facies produced by floating ice. Woodworth-Lynas, C.M.T., et al, [1994,eng] **48-5040**
See [also]: Ice scoring
Structural analysis
Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] **48-3063**
Arctic tanker 80/20 hullform optimisation. Volume V—Optimisation of structure. R.P. Browne Marine Consultants Limited, [1993,eng] **48-4125**
Behavior of fiber-reinforced plastics as construction materials in extreme environments. Dutta, P.K., et al, [1993,eng] **48-4362**
Buckling of geodesic domes under snow loads. Part 8. Sugino, H., et al, [1993,jpn] **48-1999**
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] **48-3973**
Fractal analysis of frost-resistant reinforced cement. Nakamura, M., et al, [1993,eng] **48-1601**
Ice loading on a multifaceted conical structure. Irani, M.B., et al, [1993,eng] **48-2690**
ICETECH '94—proceedings. International Conference on Ships and Marine Structure in Cold Regions, 5th, Calgary, Alberta, Canada, Mar. 1994, [1994,eng] **48-4289**
Measuring air in fresh and hardened concrete. Hover, K.C., [1993,eng] **48-2757**
MSV Fennica, a novel icebreaker concept. Lohi, P., et al, [1994,eng] **48-4301**
New Russian arctic regulations versus CASPPR. Karavanov, S.B., et al, [1994,eng] **48-4292**
On the structure of three-dimensional shear flows. Hopkins, M.A., et al, [1993,eng] **48-2085**
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] **48-4299**
Reconstruction of the CCGS *Louis S. St. Laurent*. Stocks, D.T., et al, [1994,eng] **48-4300**
Revolutionary icebreaker design. Johansson, B.M., et al, [1994,eng] **48-4303**
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] **48-1258**
Study on the evaluation methods for the strength of pavement materials. Kiriyama, T., et al, [1993,eng] **48-5091**
Why is there air in concrete. Hover, K.C., [1993,eng] **48-286**
Structural changes
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] **48-1256**
Structures
Comparison of analytical snow pressure models. McClung, D.M., [1993,eng] **48-2508**
Designing ice-resistant structures according to the limit strength criterion. Appolonov, E.M., [1992,rus] **48-749**
Impact of nonstationary temperature effects on the stress state of integrated structures. Sobakin, A.A., et al, [1990,rus] **48-60**
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] **48-606**
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] **48-1104**
See [also]: Buildings; Concrete structures; Floating structures; Hydraulic structures; Inflatable structures; Offshore structures; Pile structures; Steel structures; Subsurface structures; Superstructures; Surface structure; Undersnow facilities
Studs
See [also]: Tires
Styrofoam
See [also]: Cellular plastics
Subarctic landscapes
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] **48-82**
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] **48-4808**
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] **48-641**
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] **48-937**
Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] **48-4998**
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] **48-5007**
Boulder clusters in glacial flutes. Rose, J., [1992,eng] **48-2519**
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] **48-4635**
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] **48-1229**
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] **48-639**
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] **48-4060**
Composition and distribution of attached algal communities in small rivers of the Upper Kolyma River basin. Potapova, M.G., [1992,rus] **48-1624**
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] **48-643**
Dune development on a Canadian subarctic coastline. Ruz, M.H., et al, [1994,eng] **48-3805**
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] **48-650**
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] **48-637**
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] **48-5115**
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] **48-4375**
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] **48-1152**
Factoral-genetic systematization of Middle Siberia subarctic soils. Ershov, IU.I., [1993,eng] **48-2279**
Floodplain deposits in northern Yakutia. Zaikanov, V.G., [1993,eng] **48-2541**
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] **48-638**
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] **48-644**
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] **48-647**
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] **48-649**
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] **48-5125**
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] **48-2156**
Geological Survey of Canada radiocarbon dates XXX. McNeely, R., et al, [1991,eng] **48-3935**
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] **48-457**
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] **48-4636**
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] **48-1115**
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] **48-3785**
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] **48-3801**
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] **48-3195**
Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] **48-84**
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] **48-81**
Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] **48-4994**
Microflora of acid organogenic soils in the mountainous subarctic region of north-eastern Asia. Grishkan, I.B., et al, [1993,eng] **48-2301**
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] **48-2150**
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] **48-4650**
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] **48-645**
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] **48-83**
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] **48-347**
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] **48-2414**
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] **48-4279**
Paleoclimatic implications of Canadian Pleistocene stratigraphy. Hughes, O.L., et al, [1993,eng] **48-972**
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] **48-211**
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] **48-1383**
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] **48-3491**
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] **48-4639**
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] **48-691**
Role of snow cover in the pollution of landscapes in the Murmansk region. Ratkin, N.E., et al, [1992,rus] **48-2119**
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] **48-4811**
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] **48-1159**
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] **48-2567**
Science research needs on federally protected Alaskan lands. Hopkins, D.M., ed, et al, [1990,eng] **48-1274**
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] **48-4638**
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] **48-940**
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] **48-2660**
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] **48-1151**
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] **48-1892**
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] **48-646**
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] **48-648**
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] **48-3508**
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] **48-642**
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] **48-640**
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] **48-5419**
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] **48-2470**
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] **48-696**
Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] **48-4374**
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] **48-2543**
See [also]: Subpolar regions
Subglacial caves
Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] **48-4582**
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] **48-4105**
Subglacial drainage
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] **48-1220**
Delving into the west antarctic ice sheet. Blankenship, D.D., et al, [1993,eng] **48-771**
Depression discovered in Midui Glacier, southeast Tibet. Huang, M.H., [1993,chi] **48-4582**
Glaciological research at Vernagtferner/Oetztal Alps. Reinwarth, O., [1993,eng] **48-2785**
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland. Brown, G.H., et al, [1990,eng] **48-1589**
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] **48-2384**
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] **48-3597**
Ice sheet dynamics inferred from glaciofluvial sedimentology. Brennand, T.A., et al, [1993,eng] **48-1218**
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] **48-7**
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] **48-5139**

Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918
Radar study of antarctic ice stream stagnation. Retzlaff, R., et al, [1993,eng] 48-3581
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] 48-5039
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] 48-2396
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] 48-1363
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] 48-5160
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603

Subglacial navigation
Precision navigation under ice cover. Massey, J., [1993,eng] 48-1773
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo*. Langseth, M., et al, [1994,eng] 48-3269
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155

Subglacial observations
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Air-deliverable, ice-penetrating sonobuoy. Feltz, L.V., et al, [1991,eng] 48-3664
Antarctic landscape formation by mountain glaciation. Holmlund, P., et al, [1994,eng] 48-4987
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC). Schultz, A., et al, [1993,eng] 48-327
Beaufort Sea continental shelf as a seasonal source of atmospheric methane. Kvenvolden, K.A., et al, [1993,eng] 48-2576
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Concepts for offshore exploration in pack-ice areas—Phase II. Summary report.[1993,eng] 48-2643
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] 48-4267
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Development of high resolution ice echo sounder. Suitz, T., et al, [1993,eng] 48-1065
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
Evidence for Quaternary collapse of West Antarctic ice sheet. Burckle, L.H., [1993,eng] 48-3575
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Glaciers. Knight, P.G., [1993,eng] 48-3137
Global change, antarctic meteorite traps and the East Antarctic ice sheet. Delisle, G., [1993,eng] 48-2402
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Ice dynamics in the Sør Rondane Mountains. Pattyn, F., et al, [1993,eng] 48-2141
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] 48-5172
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] 48-3589
Laser-acoustic system for vertical profiling buried and surface ice. Hickman, G.A., et al, [1990,eng] 48-4907
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Measurement of streamflow under ice cover in North America. Wagner, C.R., [1994,eng] 48-5591
Moraine formation below a Norwegian temperate valley glacier. Benn, D.I., [1994,eng] 48-4976
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] 48-4982
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] 48-2619
Radar soundings of basal ice, East Antarctica. Holmlund, P., [1993,eng] 48-1341
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo*. Langseth, M., et al, [1994,eng] 48-3269
Seasonal variability in particle sedimentation under permanent ice cover in the Arctic Ocean. Hargrave, B.T., et al, [1994,eng] 48-4019
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155
Sticky spots under ice streams. Alley, R.B., [1992,eng] 48-2623
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] 48-1081
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] 48-5160
Under-ice broadband transient measurements and processing. Meredith, R.W., [1992,eng] 48-4744
Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] 48-1079
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] 48-1080

Subgrade preparation
Method of forming soil base on frozen ground. Petrov, B.G., et al, [1992,eng] 48-5512
Mixture for construction of car-road base. Leoshkevich, E.A., et al, [1992,eng] 48-4428

Subgrade soils
Compressing properties and salt heaving mechanism study of sulphate salty soil. Fei, X.L., et al, [1993,eng] 48-5204
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. Hein, D.K., et al, [1993,eng] 48-5077
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Evaluation of in-service subgrade resilient modulus with consideration of seasonal effects. Lee, W.J., [1994,eng] 48-3544
Fly ash—cement stabilized (Geocrete) base course for pavements in Alberta. Joshi, R.C., [1993,eng] 48-5087
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost penetration and heave in subgrades under channel linings. Guo, D.X., et al, [1993,chi] 48-4500
Frost penetration and heave under canals with sloping sides. Guo, D.X., et al, [1993,eng] 48-5207
Frost susceptibility of compacted coal ash with proper mixing ratio of fly ash to bottom ash. Chun, B.S., et al, [1993,eng] 48-3117
Frost susceptibility of powdered calcium carbonate. Chen, X.B., et al, [1993,eng] 48-5198
Method of forming soil base on frozen ground. Petrov, B.G., et al, [1992,eng] 48-5512
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,chi] 48-4499
Numerical analysis of temperature and stress on the canal subsoil during freezing. Zhang, Z., et al, [1993,eng] 48-5262
Seasonal nondestructive evaluation of frost-heave prevention layers in asphalt pavements. Kubo, H., et al, [1992,eng] 48-2115
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] 48-420

Subgrades
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Porous slab mixtures to prevent frost damage to roads. Zhu, Y.B., et al, [1993,chi] 48-4506
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] 48-5076
Research of porous slab structures for preventing frost damage of roads. Zhu, Y.B., et al, [1993,eng] 48-5266
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] 48-4909
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] 48-5069
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] 48-1840
User's guide: subsurface drainage for military pavements. Grogan, W.P., [1992,eng] 48-4751
See [also]: Foundations; Pavement bases; Permafrost bases; Roadbeds

Sublimation
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] 48-3318
Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659
See [also]: Evaporation; Ice sublimation; Snow evaporation

Submarine geology
See [also]: Marine geology

Submarine permafrost
See [also]: Subsea permafrost

Submarine topography
See [also]: Bottom topography; Ocean bottom

Submarines
Data bases and map of units of radiational risks in Russian Arctic. Baklanov, A., et al, [1993,eng] 48-4552
Dumping of radioactive wastes into the sea environment: scientific and practical aspects. Kuznetsov, IU.V., et al, [1993,eng] 48-4513
Environamental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517
Ice penetrating moored mine. Humphrey, S.A., [1990,eng] 48-2262
Multipurpose underwater transport ship outfitted for the Arctic. Dronov, B.F., et al, [1992,rus] 48-748
SCICEX-93: arctic cruise of the U.S. Navy nuclear powered submarine USS *Pargo*. Langseth, M., et al, [1994,eng] 48-3269
Secrecy under the ice frustrates global warming studies.[1990,eng] 48-1503
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155
System of radioecological monitoring for sunken nuclear submarine. Lisovskiĭ, I.V., [1993,eng] 48-4515

Submerged ice
See [also]: Underwater ice

Subpermafrost ground water
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Permafrost and groundwater in the Greater Khingan Range. Yuan, H.Y., et al, [1993,eng] 48-5259
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247

Subpolar regions
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Factors influencing atmospheric composition over subarctic North America during summer. Wofsy, S.C., et al, [1994,eng] 48-4634
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Macrobenthos communities in Baffin I. fiords. Aitken, A.E., et al, [1993,eng] 48-1833
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Nitrogen species distribution in Canadian subarctic atmospheres. Singh, H.B., et al, [1994,eng] 48-4631
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
Ozone and aerosol distributions in the summertime troposphere over Canada. Browell, E.V., et al, [1994,eng] 48-4625
Probable deep winter convection in Fram Strait. Bogorodskiĭ, P.V., et al, [1992,eng] 48-1767
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Solution to problems in mining ore deposits in the North. Grinev, V.G., [1992,rus] 48-652
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609

Tropospheric aerosol chemistry over Canadian wetlands. Gorzelska, K., et al, [1994,eng] 48-4627
Tropospheric aerosol densities over central Canada. Gregory, G.L., et al, [1994,eng] 48-4626
Tropospheric nitrogen species partitioning over Canada. Sandholm, S., et al, [1994,eng] 48-4632
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
See [also]: Subarctic landscapes

Subsea permafrost
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Laying arctic gas pipeline across Baidaratskaya Gulf. Shakirov, R.M., [1993,eng] 48-4314
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443

Subsidence
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802

Substrates
Aircraft window defroster. Mukherjee, A., [1990,eng] 48-1874
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Subglacial drainage beneath the Laurentide ice sheets. Clark, P.U., et al, [1994,eng] 48-3628
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607

Subsurface drainage
Evaluation of frost action mitigation procedures for highly frost-susceptible soils. MacKay, M.H., et al, [1992,eng] 48-2114
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] 48-2378
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
Mining impact on permafrost hydrology. Klimovskii, I.V., et al, [1993,eng] 48-522
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
User's guide: subsurface drainage for military pavements. Grogan, W.P., [1992,eng] 48-4751

Subsurface investigations
Air-gap formation by snow melting. Nohguchi, Y., [1993,eng] 48-2862
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-257
Antarctic career move for ageing torpedo. Anderson, I., [1993,eng] 48-3626
Crash landings in Greenland—4. Traces obliterated. Ancker, P.E., [1986,dan] 48-2652
Depth of penetration in antarctic firn at 10 GHz. Davis, C.H., et al, [1993,eng] 48-2110
Detection of a straight metal tube by snow search radar. Mitsuhashi, R., et al, [1993,eng] 48-1713
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Enhancement of radar imaging by snow permittivity. Mitsuhashi, R., et al, [1993,eng] 48-3812
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
FMCW radar investigation of snow pack evolution. Koh, G., [1993,eng] 48-2936
Ground penetrating radar for sub-road permafrost detection. Zeng, Z.G., et al, [1993,eng] 48-494
Instruments for measuring subice algal profiles and productivity *in situ*. Herman, A.W., et al, [1993,eng] 48-3201
Microwave locator of objects buried in snow. Fitzgerald, L., [1994,eng] 48-3276
Microwave locator of objects buried in snow. Stanford, M., [1994,eng] 48-3275
Pleistocene ice scoring in the Arctic Ocean. Vogt, P.R., et al, [1994,eng] 48-4662
Radar detecting on permafrost distribution under the asphalt road of Qinghai-Xizang Highway. Zeng, Z.G., et al, [1993,chi] 48-4393
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] 48-2064
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
Redistribution of subsurface neutrons caused by ground ice on Mars. Feldman, W.C., et al, [1993,eng] 48-2057
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
Seismic survey in arctic regions. Hess, G., et al, [1993,eng] 48-155
Semi-quantitative geophysical investigation of permafrost in northern Québec. Seguin, M.K., et al, [1994,eng] 48-4820
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] 48-4918
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831

Subsurface structures
Aircraft deicer system. Manda, L.J., et al, [1993,eng] 48-1940
Concrete goes to sea for oil.[1994,eng] 48-4039
Freeze plug isolation for undersea gas line. Knott, T., [1994,eng] 48-5046
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
Ice breaker. Hellmann, J.H., et al, [1990,eng] 48-1938
Icebreaking ship. Jans, P., et al, [1993,eng] 48-1734
Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517
Rock geomechanics in the cryolithozone. Izakson, V.IU., et al, [1993,eng] 48-2372
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135

Sunlight
Ozone depletion during polar sunrise. McConnell, J.C., et al, [1993,eng] 48-3051
Polar sunrise studies. Bottenheim, J.W., [1993,eng] 48-3048
Spectral light environment in sea ice. Kishino, M., [1993,eng] 48-1077

Sunshine
See [also]: Insolation

Supercooled clouds
Aerosol-cloud chemical fractionation: enrichment factor analysis of cloud water. Carter, E.J., et al, [1993,eng] 48-2994
Aggregation of snow crystals in the early growth stage. Takahashi, T., et al, [1992,jpn] 48-3202
Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] 48-1745
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] 48-2556
Phase change from cloud droplets to snow particles. Wada, M., [1993,eng] 48-1680
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] 48-3010
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Snowfall rate and supercooled liquid water content. Adams, W.M., et al, [1993,eng] 48-1725
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Theoretical investigation of the growth rates of ice crystals in clouds. Ji, W.S., [1992,eng] 48-3527

Supercooled fog
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
Investigation of crystallization of charged, supercooled water fog. Dubrovich, N.A., et al, [1993,eng] 48-71
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065

Supercooling
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Cell wall and freezing injury: a mini-review. Tao, D.L., et al, [1993,eng] 48-1256
Comment and reply on paper by Tinsley et al. Detwiler, A., et al, [1993,eng] 48-955
Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] 48-1257
Density and structure of ice accretion predicted by a random-walk model. Szilder, K., [1993,eng] 48-957
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] 48-5024
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] 48-5056
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Effects of supercooling and freezing on natural convection in seawater. Brewster, R.A., et al, [1994,eng] 48-3803
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Freezing rate due to heterogeneous nucleation. Vali, G., [1994,eng] 48-5058
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384
Heuristic freezing spray model of vessel icing. Blackmore, R.Z., et al, [1994,eng] 48-4937
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
Noncritical behavior of density fluctuations in supercooled water. Xie, Y.L., et al, [1993,eng] 48-1020
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] 48-4715
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Simulation of supercooling and size distribution in frazil ice dynamics. Svensson, U., et al, [1994,eng] 48-3826
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Supersaturation
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Inclusion of ice growth processes in cloud models. DeMott, P.J., et al, [1994,eng] 48-2511
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600

Superstructures
Bering Sea topside icing probabilities for two naval combatants. Thomas, W.L., III, [1991,eng] 48-4735
Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
Simulating superstructure icing on the entire vessel. Zakrzewski, W.P., et al, [1992,eng] 48-1546
Superstructure spray and ice accretion on a large U.S. Coast Guard cutter. Ryerson, C.C., [1993,eng] 48-855

Supplies
See [also]: Logistics

Supports
Anti-skid device for vehicle wheels with automatic positioning by securing members. Metraux, M., [1991,eng] 48-1365
Cross-type clamp to join snow net cables. Bolliger, R., [1993,eng] 48-1284
New and recycled plastic composites for roadside safety hardware. McDevitt, C.F., et al, [1993,eng] 48-2093
Snow-plow. Grübler, W., et al, [1992,eng] 48-1367
See [also]: Pipeline supports; Power line supports

Suprapermafrost ground water
Formation of suprapermafrost ground water on alassy. Arkhipov, V.V., [1988,rus] 48-914
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429
Permafrost and groundwater in the Greater Khingan Range. Yuan, H.Y., et al, [1993,eng] 48-5259

Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Soil water chemistry during active layer refreezing. Marlin, C., et al, [1993,fre] 48-970
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Water and heat transfer in the active layer. Wang, Y., et al, [1993,eng] 48-5247

Surface boundary layer
See [also]: Atmospheric boundary layer

Surface drainage
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Analysis of the surface hydrology in a regional climate model. Giorgi, F., et al, [1994,eng] 48-2593
Application of a conceptual streamflow model in a glacierized drainage basin. Moore, R.D., [1993,eng] 48-137
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Forest floor frost dynamics during spring snowmelt in a boreal forested basin. Stein, J., et al, [1994,eng] 48-4449
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259

Surface effect vehicles
See [also]: Air cushion vehicles

Surface energy
1990 antarctic surface energy balance components, Zhongshan Station. Bian, L.G., et al, [1993,eng] 48-1514
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] 48-2919
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Condensation and vaporization behavior of ices containing SO_2, H_2S, and CO_2: implications for Io. Sandford, S.A., et al, [1993,eng] 48-2997
Daily energy balance of the Greenland ice sheet. Henneken, E.A.C., et al, [1994,eng] 48-3517
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Model for the surface balance of ice masses: pt.1. Alpine glaciers. Oerlemans, J., [1991,eng] 48-3653
Numerical model of the West Greenland ice sheet. Greuell, W., et al, [1994,eng] 48-3519
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
Parameterization of global and longwave incoming radiation for the Greenland Ice Sheet. Konzelmann, T., et al, [1994,eng] 48-3522
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615

Surface properties
Adhesion of fresh and saline ice to bare and coated steel surfaces. Nelson, W.G., et al, [1994,eng] 48-3022
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Polar deposits on Mars. Thomas, P., et al, [1992,eng] 48-5042
Radar photography of ice at the north pole of Mercury. Butler, B.J., et al, [1993,eng] 48-752
Review of current research on Titan surface properties. Lunine, J.I., [1993,eng] 48-1508
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Seasat A scatterometer observations of Greenland ice sheet surface. Long, D.G., et al, [1994,eng] 48-5159
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] 48-2088
See [also]: Glacier surfaces; Ice surface; Microrelief; Snow surface

Surface roughness
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] 48-4831
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] 48-5027
Analysis of satellite-altimeter height measurements above continental ice sheets. Femenias, P., et al, [1993,eng] 48-3585
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] 48-3594
Consistency in long-term observations of oceans and ice from space. Zabel, I.H.H., et al, [1994,eng] 48-4414
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574
Ice sheet surface variations derived from radar altimetry. Davis, C.H., et al, [1993,eng] 48-3595
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] 48-5004
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] 48-1011
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Prediction of ice shapes and their effect on airfoil drag. Shin, J.W., et al, [1994,eng] 48-4062
Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Seasonal changes in the longitudinal profile of pavements subject to frost action. Novak, E.C., Jr., et al, [1992,eng] 48-2116
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109

Surface structure
Airborne laser geodetic survey of Greenland glaciers. Garvin, J.B., et al, [1993,eng] 48-1352
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Change in surface elevation of glaciers in the eastern Alps, 1979-1989. Finsterwalder, R., et al, [1991,ger] 48-3660
Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] 48-2294
Efficiency of using non-traditional hull lines for icebreakers. Ierusalimskiĭ, A.V., et al, [1994,eng] 48-4307
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Geophysical field area fraction estimation. Key, J.R., [1993,eng] 48-2161
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] 48-4807
Ice-flow features on Ice Stream B, Antarctica, revealed by SPOT HRV imagery. Merry, C.J., et al, [1993,eng] 48-3578
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt, C., et al, [1993,eng] 48-74
Laboratory impact tests on freshwater ice. Timco, G.W., et al, [1993,eng] 48-2735
Photometry of icy satellite Mimas. Verbiscer, A.J., et al, [1992,eng] 48-989
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332
Retractable tire stud. Nicholas, J.G., [1993,eng] 48-1653
Scanning electron microscope examination of glacial abrasion features on quartzite bedrock. Sellier, D., et al, [1993,fre] 48-2671
Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] 48-4034
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Texture-based classification of cloud and ice-cap surface features. Rees, W.G., et al, [1993,eng] 48-1331
Tread for pneumatic tire intended for winter driving. Lagnier, A., [1991,eng] 48-1518
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582

Surface temperature
Antarctic climate modeling with general circulation models of the atmosphere. Genthon, C., [1994,eng] 48-4699
Arctic Ocean Buoy Program data report for 1 January 1986-31 December 1986. Colony, R.L., et al, [1989,eng] 48-3333
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Associations between snow cover extent and surface air temperature over North America. Robinson, D.A., et al, [1993,eng] 48-2944
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Calculation of surface temperature and albedo of arctic sea ice from AVHRR. Lindsay, R.W., et al, [1993,eng] 48-1354
Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] 48-4194
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] 48-3390
Diatomic evidence of Greenland ice sheet/ocean interactions. Williams, K.M., [1993,eng] 48-1512
Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] 48-3249
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Examining the influence of snow cover on morning air temperature. Hogan, A.W., et al, [1993,eng] 48-2948
Frost formation and heat transfer on circular cylinders in cross-flow. Raju, S.P., et al, [1993,eng] 48-2155
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Improved satellite sounding of heat flux over sea ice. Francis, J.A., [1994,eng] 48-4846
Influence of thermal inertia on temperatures and frost stability on Triton. Spencer, J.R., et al, [1992,eng] 48-1606
Interannual and climatic characteristics of an ice ocean circulation model. Hibler, W.D., III, et al, [1993,eng] 48-4209
International Arctic Buoy Program data report for 1 January 1992-31 December 1992. Colony, R.L., et al, [1993,eng] 48-3285
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] 48-62
Investigation of climate drift in a coupled atmosphere-ocean-sea ice model. Moore, A.M., et al, [1994,eng] 48-5372
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Isotopic patterns in modern global precipitation. Rozanski, K., et al, [1993,eng] 48-1495
Monte Carlo climate change forecasts with a global coupled ocean-atmosphere model. Cubasch, U., et al, [1994,eng] 48-5368
Multi-year sea ice mapping by thermal infrared radiometry. Christensen, F.T., et al, [1994,eng] 48-4472
N-factor maps of Russian permafrost region. Shur, IU.L., et al, [1993,eng] 48-455
North Atlantic sea surface salinity, ice melting and abrupt climatic changes. Paterne, M., et al, [1993,eng] 48-4208
Northern Hemisphere response to orbital forcing. Koç, N., et al, [1994,eng] 48-4950
Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] 48-1789
Note on orbital control of equator-pole heat fluxes. Lindzen, R.S., et al, [1994,eng] 48-5371
NYTEMP user's manual: a pavement temperature model. Chen, H.J., [1993,eng] 48-1839
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] 48-2537
One-dimensional study of possible cirrus cloud feedbacks. Sinha, A., et al, [1994,eng] 48-2890
Quaternary sea ice extent from dinoflagellate cyst assemblages. De Vernal, A., et al, [1993,eng] 48-4207
Radiometric acquisition of sea ice surface temperatures. Maslanik, J.A., et al, [1993,eng] 48-1351
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Rock surface temperatures in the high altitude region of the Nepal Himalaya. Shiraiwa, T., [1992,eng] 48-3156
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Sea ice-atmosphere interaction and surface energy flux. Steffen, K., et al, [1992,eng] 48-4863
Semi-empirical transient method for modelling frost formation on a flat plate. Sherif, S.A., et al, [1993,eng] 48-3200

Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] 48-5080
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Simulation of ice accumulation at the surface of Antarctica. Genthon, C., [1993,eng] 48-4184
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Snow surface temperature measurements by infrared scanner. Moritz, E., [1986,ger] 48-618
Spaceborne/ground truth radiometric ice sheet correlations. Haefliger, M., et al, [1993,eng] 48-1299
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615
Surface temperature and salinity of the Okhotsk Sea. IAkunin, L.P., [1993,eng] 48-1088
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Valley air temperature during frosting conditions. Díaz, D.P., et al, [1993,eng] 48-2203

Surface tension
See [also]: Interfacial tension

Surface waters
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Anthropogenic ^{129}I in the Kara Sea. Raisbeck, G.M., et al, [1993,eng] 48-4526
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Freshwater tardigrades from Devon I., Canada. Van Rompu, E.A., et al, [1992,eng] 48-3608
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] 48-4973
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Preliminary evaluation of the analytical holding time for white phosphorus in surface water. Walsh, M.E., et al, [1994,eng] 48-5405
Qualitative condition of surface waters in Komi ASSR. Kokovkin, A.V., [1990,rus] 48-5403
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Water resources data for Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] 48-1462

Surging glaciers
See [also]: Glacier surges

Surveying
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] 48-4819
Glacier mass-balance measurements: a manual for field and office work. Østrem, G., et al, [1991,eng] 48-312
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] 48-2470

Surveys
Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Results of a survey on WDC-A activities. Shartran, M.J., [1978,eng] 48-2982
See [also]: Aerial surveys; Electromagnetic prospecting; Exploration; Geodetic surveys; Geological surveys; Geophysical surveys; Glacier surveys; Ice surveys; Infrared reconnaissance; Magnetic surveys; Mapping; Oceanographic surveys; Permafrost surveys; Photogrammetric surveys; Photographic reconnaissance; Route surveys; Seismic surveys; Site surveys; Snow surveys; Soil surveys; Topographic surveys

Survival
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] 48-3345
See [also]: Cold weather survival; Viability

Suspended pipelines
Distinguishing features of pipeline construction in arctic regions. Kharionovskii, V.V., [1994,eng] 48-3990
Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] 48-3404

Suspended sediments
Arctic sea ice sediment enrichment through frazil entrainment. Ackermann, N.L., et al, [1994,eng] 48-4053
Clay-mineral flux in the Fram Strait and Norwegian Sea. Berner, H., et al, [1994,eng] 48-3317
Comparison of bed load yield estimates for a glacial meltwater stream. Warburton, J., [1990,eng] 48-1584
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Erosion, debris flows and environment in mountain regions. Walling, D.E., ed, et al, [1992,eng] 48-4405
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Ice and sedimentation processes in the Saint John River, Canada. Beltaos, S., et al, [1994,eng] 48-5537
Introduction and dispersal of suspended sediment from the Cayley Glacier into Brialmont Cove, Antarctica. Williams, E.T., [1994,eng] 48-3918
Reactive transport of suspended particles: mechanisms and modeling. Mercier, R.S., [1985,eng] 48-4895
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
Sampling standards for arctic sediment transfer studies. Clark, M.J., et al, [1988,eng] 48-2567
Sediment sources and delivery in a drainage basin in Greenland. Hasholt, B., et al, [1992,eng] 48-4406
Sediment yields in small drainage basins in British Columbia. Owens, P., et al, [1992,eng] 48-4407
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] 48-2802
Surface sediment distribution in the Fram Strait. Hebbeln, D., et al, [1993,eng] 48-4089
Suspended sediment load and sources in alpine glacier basins. Gurnell, A.M., et al, [1990,eng] 48-1592
Suspended sediment relationships in glacier-fed Pakistani rivers. Kelly, R.E.J., [1990,eng] 48-2664
Suspended sediment transport in glacier meltwaters. Collins, D.N., [1990,eng] 48-1590
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539
Varve deposition in three small Canadian mountain lakes. Desloges, J.R., [1994,eng] 48-4372
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Water resources data for Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] 48-1462
Weddell Sea algal communities. Fahl, K., et al, [1993,eng] 48-597

Swamps
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskii, N.N., ed, et al, [1992,rus] 48-4151
Canadian bog landforms in relation to permafrost patterns. Vitt, D.H., et al, [1994,eng] 48-3501
Effect of lowered water table on nitrous oxide fluxes from northern peatlands. Martikainen, P.J., et al, [1993,eng] 48-1121
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] 48-501
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Recultivation of oil-contaminated soils. Chalysheva, L.V., et al, [1990,rus] 48-5404
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
Stratigraphy of an Eocene swamp in Axel Heiberg I. Greenwood, D.R., et al, [1993,eng] 48-3132
Thaw settlement of railway foundations in permafrost swamp regions. Yang, H.R., et al, [1993,eng] 48-5256

Sweden
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] 48-4964
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] 48-3964
Composition of melt water from urban snow. A laboratory study. Viklander, M., et al, [1994,eng] 48-3968
Dating of Swedish deglaciation from glacial deposits. Strömberg, B., [1994,eng] 48-4990
Environmental deposition of PCDDs and PCDFs as determined by the analysis of snow samples from northern Sweden. Marklund, S., et al, [1991,eng] 48-3755
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Frost Data Base (FDB). Svensson, J., [1993,swe] 48-3078
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
Geochemical control on subarctic lake sediment composition. Snowball, I.F., [1993,eng] 48-5013
Glacier of Sweden. Schytt, V., [1993,eng] 48-4031
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Impact of a repository on permafrost development during glaciation advance. Vallander, P., et al, [1991,eng] 48-4761
Infrared spectroscopy of stratospheric trace gases. Adrian, G.P., et al, [1994,eng] 48-5475
Insulated compost containers for cold climate. Nilsson, P., et al, [1994,eng] 48-3977
Methods and materials for snow and ice control on Swedish roads and runways. Gustafson, K., [1993,eng] 48-1193
Military vehicles for cold climates. Falk, A., [1994,eng] 48-3946
MINSALT—extension of the regions in Sweden where salt is not used: effect studies. Øberg, G., [1993,eng] 48-1208
Prediction of ice loads on a mast using general weather data. Sundin, E., [1994,eng] 48-5573
Proposal for new winter road maintenance strategy—MINSALT project. Axelson, L., [1993,eng] 48-1189
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] 48-3429
Results from full scale measuring of ice and wind loads on a high mast in Sweden. Fahleson, C., [1993,eng] 48-853
Roadway management in cold regions: a summary of Scandinavian practice. Bennett, F.L., [1994,eng] 48-3368
Short term variations in ice dynamics of a glacier in Sweden. Jansson, E.P., [1993,eng] 48-3535
Stabilization of sand in a roadbase—Swedish road research. Lindh, E., et al, [1993,swe] 48-1377
Sustainable urban development in cold climate. Lundborg, G., [1994,eng] 48-3883
Ten-year record of the different levels of the ^{14}C activities over Sweden and the Arctic. Olsson, I.U., [1993,eng] 48-2746
TV-video observation of englacial voids in Storglaciären, Sweden. Pohjola, V.A., [1994,eng] 48-5160
Weather forecasts and information on road conditions—MINSALT. Axelson, L., [1993,eng] 48-1202

—Abisko
Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] 48-1230
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Transpiration of sub-arctic parasitic angiosperms. Seel, W.E., et al, [1994,eng] 48-5419

—Åre
Stratospheric trace gas measurements in Sweden. Bell, W., et al, [1994,eng] 48-5476

—Kiruna
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] 48-5470

Switzerland
Avalanches generated by snow and thunderstorms in Switzerland. Kerkmann, J., et al, [1993,ita] 48-1132
Chemical composition of precipitation in a prealpine area of eastern Switzerland. Langenegger, O., [1990,eng] 48-1593
Chemical composition of snow cover on the western Swiss Alps. Parriaux, A., et al, [1990,eng] 48-1594
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Glaciers of the Swiss Alps 1987/88 and 1988/89. Aellen, M., et al, [1993,ger] 48-1211
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
How many reservoirs? An analysis of flow recessions from a glacier basin. Gurnell, A.M., [1993,eng] 48-2403
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland. Brown, G.H., et al, [1990,eng] 48-1589
Interaction between snow and permafrost: basic study in the Upper Engadin. Keller, F., [1994,ger] 48-5036
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Long-term records of snow cover water equivalent in the Swiss Alps. 2. Simulation. Rohrer, M.B., et al, [1994,eng] 48-4710
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data. Wiesmann, A., et al, [1994,eng] 48-3469
Results from the Colle Gnifetti ice-core programme. Wagenbach, D., [1994,eng] 48-2714
Retreat of alpine glaciers and the global greenhouse effect. Haeberli, W., [1994,ger] 48-5099
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Synchronous image of the isotopic composition of the snow cover in the western Swiss Alps. Dray, M., et al, [1990,fre] 48-1591
Three-dimensional flow and age distribution at a high-altitude ice-core drilling site. Wagner, S., [1994,eng] 48-2718
Variability of runoff from partially-glacierised alpine basins. Collins, D.N., et al, [1990,eng] 48-1587
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Water balance and glacier mass balance in the Swiss Alps. Aellen, M., et al, [1990,fre] 48-1572

—Alps
Climatic change and debris flow activity in high-mountain areas. Zimmermann, M., et al, [1989,eng] 48-2571
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] 48-3583
Drumlins in a full alpine setting: some examples from Switzerland. Van der Meer, J.J.M., et al, [1992,eng] 48-2520
Effects of long-term warming on alpine snow and ice. Kuhn, M., [1989,eng] 48-2458

Glacier fluctuations and changes in the forest-limit in the Alps. Bortenschlager, S., [1989,eng] 48-2572
Glaciers of the Alps. Rott, H., et al, [1993,eng] 48-4028
Interaction between snow cover and high mountain permafrost, Murtèl/Corvatsch, Swiss Alps. Keller, F., et al, [1993,eng] 48-411
Millimeter-wave measurements of chlorine monoxide at the Jungfraujoch alpine station. Gerber, L., et al, [1994,eng] 48-5460
Monitoring the long-term evolution of mountain permafrost in the Swiss Alps. Haeberli, W., et al, [1993,eng] 48-389
Morphogenesis and morphodynamics in high mountain environments—Field trip D4, Swiss Alps. Haeberli, W., ed, et al, [1990,eng] 48-3034
Possible effects of climatic change on the evolution of alpine permafrost. Haeberli, W., [1989,eng] 48-2570
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] 48-1378
Spatial differences of maximum snow cover depth in the Swiss Alps. Filliger, P., et al, [1986,ger] 48-614
Stratospheric chemistry over the Swiss Alps. Van Roozendael, M., et al, [1994,eng] 48-5485
Survey of rock glaciers in the Swiss Alps. Vonder Mühll, D.S., et al, [1993,eng] 48-473
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057

—Clariden Glacier

Nivological measurements on the Clariden glacier (Swiss Alps) from 1914 to the present. Kappenberger, G., [1993,ita] 48-4103

—Davos

Transfer of atmospheric constituents into an alpine snow field. Baltensperger, U., et al, [1993,eng] 48-1234

—Haut Glacier d'Arolla

Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] 48-3258

—Rigi, Mount

Contributions of cloud processes to precipitation chemistry in mixed phase clouds. Collett, J.L., Jr., et al, [1993,eng] 48-218
Goals of Mount Rigi winter precipitation project. Staehelin, J., et al, [1993,eng] 48-216
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Occurrence and the fate of organic pollutants in the atmosphere. Hart, K.M., et al, [1993,eng] 48-219

Symposia

See [also]: Meetings

Synoptic meteorology

Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] 48-3497
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Cyclonic atmospheric response to sea ice variations. Simmonds, I., et al, [1993,eng] 48-959
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Hemispheric snow cover from satellites. Robinson, D.A., [1993,eng] 48-1350
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] 48-4595
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] 48-2346
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] 48-2964
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
Mesoscale vortex over Halley Station, Antarctica. Turner, J., et al, [1993,eng] 48-1834
Observations of a snow band in a symmetrically unstable flow over Alberta. Aktary, N., et al, [1993,eng] 48-3496
Precipitation from convective boundary layers in arctic air masses. Olafsson, H., et al, [1994,eng] 48-3134
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] 48-608
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Price, J.D., et al, [1994,eng] 48-5506
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358
Snowfall in the lee of Lakes Erie and Ontario. Leathers, D.J., et al, [1993,eng] 48-2960
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] 48-4067
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] 48-809
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] 48-313

Synthetic aperture radar

Active and passive microwave remote sensing of frozen lakes for regional climate studies. Hall, D.K., [1993,eng] 48-1795
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066
Application of ERS-1 SAR and scatterometer data for studies of the antarctic ice sheet. Rott, H., et al, [1994,eng] 48-3437
Arctic sea ice microwave signature and geophysical processes study. Onstott, R.G., et al, [1993,eng] 48-1693
Aspects of the detection of oil under sea ice using radar methods. Tunaley, J.K.E., et al, [1986,eng] 48-4175
Backscatter characteristics of the winter ice cover in the Beaufort Sea. Kwok, R., et al, [1994,eng] 48-4055
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714
Capabilities of ERS-1 SAR for snow and glacier monitoring in alpine areas. Rott, H., et al, [1994,eng] 48-3478
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Computer assisted ice monitoring and remote sensing for arctic offshore drilling systems. Saint, S.R., et al, [1993,eng] 48-179
Deriving snow liquid water content using C-band polarimetric SAR. Shi, J.C., et al, [1993,eng] 48-1705
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] 48-1721
Developing automated analysis methods for sea ice imagery. Fetterer, F.M., [1993,eng] 48-1962
Doppler spectral method of identifying water and ice in marginal-ice-zone imagery. Rufenach, C.L., et al, [1993,eng] 48-1689
Effect of land-cover type and season in microwave remote sensing of snow. Jääskeläinen, V., et al, [1993,eng] 48-1707
ERS-1 data for mapping of the Antarctic Peninsula by shape-from-shading technique. Fiksel, T., et al, [1994,eng] 48-3440
ERS-1 SAR analysis of arctic ice concentration during the melt season. Askne, J., et al, [1993,eng] 48-1686
ERS-1 SAR for snow monitoring. Guneriussen, T., et al, [1993,eng] 48-1729
ERS-1 SAR investigations of snow and ice facies on ice caps in the European high Arctic. Dowdeswell, J.A., et al, [1994,eng] 48-3485
ERS-1 SAR observations of swell travelling into the ice. Lehner, S., et al, [1994,eng] 48-3457
ERS-1 SAR use to determine lake depths in arctic and subarctic regions. Mellor, J.C., [1994,eng] 48-3484
ERS-1 SAR: stress indicator for antarctic ice streams. Vaughan, D.G., et al, [1994,eng] 48-3445
Estimating snow cover with the ERS-1 satellite: preliminary results from eastern Quebec. Bernier, M., et al, [1994,fre] 48-4484
Experience from using ERS-1 SAR for Baltic Sea ice mapping. Leppäranta, M., [1993,eng] 48-1056
Extraction and analysis of sea ice leads from SAR images. Van Dyne, M., et al, [1993,eng] 48-1691
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] 48-3438
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Extraction of marginal-ice-zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1993,eng] 48-1688
Feature extraction technique for synthetic aperture radar (SAR) sea ice imagery. Soh, L.K., et al, [1993,eng] 48-1692
Fusion of ERS-1 SAR and SSM/I ice data. Ramseier, R.O., et al, [1994,eng] 48-3466
Geomorphology and thawing dynamics at Potter Peninsula. Hochschild, V., et al, [1994,eng] 48-3486
Geophysical Processor System: automated analysis of ERS-1 SAR imagery. Stern, H.L., et al, [1994,eng] 48-3451
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany. Wang, C., et al, [1993,eng] 48-1720
Great Lakes SAR ice research applications demonstration. Leshkevich, G., et al, [1994,eng] 48-3473
Greenland ice sheet change detection by SAR. Fahnestock, M.A., et al, [1993,eng] 48-1345
Hough transform algorithm for sea ice lead analysis: an evaluation. Gineris, D.J., et al, [1993,eng] 48-4752
Ice studies in the Barents Sea by ERS-1 SAR during SIZEX 92. Sandven, S., et al, [1993,eng] 48-131
Ice-atmosphere interactions in the central Arctic. Maslanik, J.A., et al, [1994,eng] 48-3468
Identification of modeled ocean plumes in Greenland gyre ERS-1 SAR data. Carsey, F.D., et al, [1993,eng] 48-2210
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Intercomparison of ERS-1 SAR, airborne SLAR and electromagnetic ice-thickness data. Ikeda, M., et al, [1994,eng] 48-3456
Leadex environmental phenomena and effects observed by DMSP, NOAA, and ERS-1 satellites. Fett, R.W., [1993,eng] 48-2135
Mapping of snow cover by ERS-1 SAR. Solberg, R., [1993,eng] 48-1717
Marginal ice zone signatures observed by the ERS-1 SAR during SIZEX '92. Shuchman, R.A., et al, [1993,eng] 48-1695
Measurements of snow- and glacier-covered areas with single-polarization SAR. Shi, J.C., et al, [1993,eng] 48-1302
Microwave remote sensing for hydrological parameterization. Blyth, K., [1993,eng] 48-2377
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480
Modeling and observation of polarimetric SAR response to dry snow. Shi, J.C., et al, [1993,eng] 48-1706
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Modeling of snowmelt runoff in Ontario from SAR data. Seglenieks, F., et al, [1993,eng] 48-2969
Monitoring freeze-thaw along north-south Alaskan transects using ERS-1 SAR. Rignot, E.J.M., et al, [1993,eng] 48-1719
Monitoring sea ice flux through Fram Strait. Schweiger, A.J., et al, [1994,eng] 48-3450
Multi-sensor and ground-truth investigation of Weddell Sea ice conditions. Viehoff, T., et al, [1994,eng] 48-3452
Multifrequency and polarimetric SAR observations on alpine glaciers. Rott, H., et al, [1993,eng] 48-1306
Near real time satellite SAR image data transmission system. Sobue, S., et al, [1993,eng] 48-1055
Ocean-ice interaction in the marginal ice zone. Liu, A.K., et al, [1994,eng] 48-3458
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Odden ice tongue in the Greenland Sea. Wadhams, P., et al, [1994,eng] 48-3453
Operational mapping of ice conditions using ERS-1 images in the Baltic Sea. Seinä, A., et al, [1994,eng] 48-3467
Operational use of ERS-1 SAR data to monitor ice conditions in the Gulf of St. Lawrence. Shokr, M.E., et al, [1994,eng] 48-3471
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Potential of RADARSAT for sea ice applications. Ramsay, B., et al, [1993,eng] 48-2499
Proceedings. Space at the service of our environment. ERS-1 Symposium, 2nd, Hamburg, Germany, Oct. 11-14, 1993, [1994,eng] 48-3433
Radar observation of an arctic polynya under summer conditions. Gudmandsen, P., et al, [1994,eng] 48-3461
Radar scattering from snow facies of the Greenland ice sheet. Rignot, E.J.M., et al, [1993,eng] 48-1716
Real time ice monitoring demonstration in the Baltic Sea. Herland, E.A., [1994,eng] 48-3474
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] 48-4123
Remote sensing for ice monitoring along Canada's east coast. Gauthier, M.F., et al, [1993,eng] 48-1728
River ice conditions determined from ERS-1 SAR. Gatto, L.W., [1993,eng] 48-2935
SAR application calibration requirements. Brown, R.J., et al, [1993,eng] 48-1511
SAR backscatter from sea ice. Joughin, I.R., et al, [1993,eng] 48-4156
SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479
SAR detection of snow-covered objects. Yamaguchi, Y., et al, [1994,eng] 48-5135
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Satellite observations of oceans and ice. Jezek, K.C., et al, [1988,eng] 48-1467
Scatterometer measurements of arctic sea ice at C-band. Grandell, J., et al, [1993,eng] 48-1701
Sea ice activities at the Canada Centre for Remote Sensing. Manore, M., [1994,eng] 48-3465
Sea ice lead dynamics from ERS-1 SAR. Stern, H.L., et al, [1994,eng] 48-3448
Sea ice mapping and icebreaker operations in the Gulf of Bothnia. Thompson, T., et al, [1994,eng] 48-3449
Sea ice monitoring of the Northern Sea Route by ERS-1 SAR data. Johannessen, O.M., et al, [1994,eng] 48-5594
Sea ice motion in the Weddell Sea, Antarctica from pairs of ERS-1 SAR images. Turner, J., et al, [1994,eng] 48-3455
Sea-ice and climate: an approach using SAR data. Roth, R., et al, [1994,eng] 48-3459
Segmentation of ERS-1 sea ice imagery for polar operations. Walker, N.P., et al, [1994,eng] 48-3460

Segmentation of synthetic-aperture radar imagery of sea ice. Sephton, A.J., et al, [1994,eng] 48-4034
Shortwave albedo of snow cover over sea ice. Barber, D.G., et al, [1993,eng] 48-1802
Simulation of ice applications requirements and ground segment performance. Whitman, J.W.E., et al, [1993,eng] 48-2500
SIZEX 89—a prelaunch ERS-1 experiment: experiment report. SIZEX Group, [1989,eng] 48-2631
SIZEX'92 ERS-1 SAR ice validation experiment. Sandven, S., et al, [1994,eng] 48-3464
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] 48-5136
Snow wetness retrieval algorithm for SAR. Shi, J.C., et al, [1992,eng] 48-3284
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] 48-1062
SSM/I sea ice products validation. Jentz, R.R., et al, [1991,eng] 48-3670
Study on SAR land applications for snow and glacier monitoring. Executive summary. Rott, H., et al, [1988,eng] 48-2363
Study on SAR land applications for snow and glacier monitoring. Final report. Rott, H., et al, [1988,eng] 48-3332
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Synthetic aperture radar imagery for operational ice analysis. Fetterer, F., et al, [1991,eng] 48-4737
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] 48-1772
Transpolar ice drift north of Fram Strait studied from ERS-1 SAR imagery. Kergomard, C., et al, [1994,eng] 48-3447
Validation of ERS-1 SAR for arctic ice properties from ARCTIC-91. Askne, J., et al, [1994,eng] 48-3446
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443
Velocities and mass balance of Pine Island Glacier from ERS-1 SAR images. Lucchitta, B.K., et al, [1994,eng] 48-3439
Water equivalent of snow and backscattering at C-band. Kondoh, A., et al, [1993,eng] 48-1708

Synthetic materials
Freeze-thaw fabrication of macroporous hydrogel polymers. Atkins, T.W., et al, [1993,eng] 48-5015
Prestressed ice as indigenous polar construction material. Nese, P.I., et al, [1991,eng] 48-4040

Taiga
Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643
Correlation of Russian, US, and Canadian classification systems for selected tundra and taiga soils (in N-E Russia). Mazhitova, G., et al, [1993,eng] 48-2275
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Extreme anthropogenic loads and the northern ecosystem condition. Kriuchkov, V.V., [1993,eng] 48-5388
Factoral-genetic systematization of Middle Siberia subarctic soils. Ershov, IU.I., [1993,eng] 48-2279
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644
Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
Landscape ecological features of the subarctic mountain zone of Transbaikalia. Kuz'min, V.A., et al, [1993,eng] 48-3801
Latitudinal differentiation of vegetation along the Russo-Finnish border. IUrkovskaia, T.K., et al, [1993,rus] 48-5287
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] 48-2124
Microelements in soils of southern Yakutia. Shindler, D.R., et al, [1992,rus] 48-4146
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Pedogenic functions of water-soluble organic matter in taiga landscapes. IAshin, I.M., et al, [1993,eng] 48-1888
Planned industrial regions in the Amur taiga zone. Rianskiĭ, F.N., [1989,rus] 48-902
Plant resources of Siberia: their contemporary state and protection. Koropachinskiĭ, I.IU., et al, [1994,eng] 48-2479
Pool and renovation time of soil carbon in northern taiga and tundra of European Russia. Cherkinskiĭ, A.E., et al, [1993,eng] 48-2306
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
Problem of taiga origin. History of the subject. Prilepskiĭ, N.G., [1993,rus] 48-5272
Problems in the use of natural resources in the taiga zone. Mikhaĭlov, IU.P., ed, et al, Expanded session of the Scientific Council of the Siberian Branch of the Academy of Sciences of the USSR on the combined development of taiga territories, 16th, Irkutsk, 24-25 Nov. 1987, [1989,rus] 48-900
Problems of genesis and classification of north taiga soils of the European Russia. Vtiurin, G.M., [1993,eng] 48-2280
Pyrogenesis and evolution of cryogenic soils. Chevychelov, A.P., [1993,eng] 48-2289
Questions on the melioration of taiga soils in the Transural. Bachurin, G.V., et al, [1989,rus] 48-907
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137
Snowmelt runoff in a boreal forest in Quebec (I). Ishii, Y., et al, [1992,jpn] 48-3209
Socio-economic and ecological problems in using the natural resources in taiga regions of the Irkutsk North. Vysotskiĭ, V.N., et al, [1989,rus] 48-906
Soil cover of the southern taiga in Central Siberia. Gorbachev, V.N., et al, [1992,rus] 48-4149
Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Soils of the taiga land of Siberia. Korsunov, V.M., et al, [1988,rus] 48-309
Strategy of developing regions in the European northeast of the USSR. Bratsev, A.P., et al, [1990,rus] 48-5402
Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642
Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543

Tailings
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] 48-3391
Mining impact on permafrost hydrology. Klimovskiĭ, I.V., et al, [1993,eng] 48-522

Taliks
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Isotopic and chemical composition of ground ice in West Siberia. Kritsuk, L.N., et al, [1993,eng] 48-523
Origin and treatment of the icings in Gulian region, northern Da Hinggan Ling, northeast China. Luo, M.R., et al, [1993,eng] 48-429

Taliks beneath lakes
Effect of lake proximity on permafrost formation. Wu, Q.B., et al, [1993,eng] 48-485
Software for permafrost seepage calculations beneath earth dams. Bituirin, A.K., et al, [1994,eng] 48-4806

Taliks beneath rivers
Degeneration of permafrost in upstream valley region of Heilong River. Yu, S.Q., et al, [1993,eng] 48-493

Talus
Alpine lithofacies variation: working toward a physically- based model. Morris, S.E., et al, [1990,eng] 48-2104
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050
Hillslope geomorphology and geotechnique. Bovis, M.J., [1993,eng] 48-693
Periglacial mass movement in the head area of the Urumqi River. Cui, Z.J., et al, [1993,eng] 48-5202
Periglacial mass movement in the head area of Urumqi River. Cui, Z.J., et al, [1993,chi] 48-4487
Stone roundness of moraines connected with Taku Glacier, southeastern Alaska. Seppälä, M., [1976,eng] 48-1465
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342
Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] 48-3341

Tanker aircraft
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622

Tanker ships
Arctic tanker 80/20 hullform optimisation. Volume III—Route conditions. McCallum, J.S., et al, [1993,eng] 48-4124
Arctic tanker 80/20 hullform optimisation. Volume V—Optimisation of structure. R.P. Browne Marine Consultants Limited, [1993,eng] 48-4125
Rudder/propulsion device arrangements on icegoing vessels. Bäckström, M., et al, [1993,eng] 48-102
Study of Canadian applications for Thyssen-Waas icebreaking bow. Thompson, R., et al, [1990,eng] 48-3336
Tanker under retrofit for arctic service gets new propulsion design.[1993,eng] 48-605

Tanks (containers)
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Corrosion protection for ballast tanks of arctic offshore structures. Kwan, G.H.H., [1990,eng] 48-3746
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] 48-5008
Effect of aqueous solutions of anti-icing additive on Thiokol sealants. Likhterova, N.M., et al, [1993,eng] 48-982
See [also]: Storage tanks

Tectonics
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-3257
Arctic Ocean gravity field derived from ERS-1 satellite altimetry. Laxon, S., et al, [1994,eng] 48-5107
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] 48-3297
Cenozoic ice sheet response to free CO_2 variations. Saltzman, B., et al, [1993,eng] 48-4197
Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169
Earthquake Alaska—are we prepared. Combellick, R.A., ed, et al, [1994,eng] 48-5035
Geodynamic controls on glaciation in Earth history. Eyles, N., et al, [1994,eng] 48-5038
Glacial and tectonic development of the Antarctic Peninsula. Bart, P., [1993,eng] 48-4244
Glacial geology of Central and North Victoria Land, Antarctica. Verbers, A.L.L.M., et al, [1992,eng] 48-741
Glacial response to climate change and epeirogeny in the Nepalese Himalaya. Miller, M.M., et al, [1989,eng] 48-2661
Glacier mass balance variations related to tectonic activity. Cohen, S.C., [1993,eng] 48-1362
Glaciotectonic structures in eastern and arctic Canada. Dredge, L.A., [1993,eng] 48-3121
Icelandic glaciotectonic deformations. Hart, J.K., [1994,eng] 48-4985
Origin of the Gamburtsev Subglacial Mountains. Veevers, J.J., [1994,eng] 48-4982
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] 48-5127
Permafrost evolution in Cenozoic Eurasia. Danilov, I.D., et al, [1993,eng] 48-515
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Seismic survey of the Barents Sea basement. Johansen, S.E., et al, [1994,eng] 48-4445
Similarity between thermal ice ridge and plate tectonics. Toukairin, A., et al, [1993,eng] 48-1087
Snow cover metal content near an earthquake epicenter. Nikonov, A.A., et al, [1993,eng] 48-1824
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292
Study of a glaciotectonic landform, Prince Albert, Saskatchewan. Christiansen, E.A., et al, [1993,eng] 48-1224
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] 48-72
Vendian geology of Svalbard. Harland, W.B., et al, [1993,eng] 48-1777

Telecommunication
International Ice Patrol '94. Haines, R., [1994,eng] 48-2760
Operation Deep Freeze 93/94 end of season report. U.S. Naval Support Force Antarctica, [1994,eng] 48-4651
See [also]: Data transmission

Telemetering equipment
Ice-Ocean Environmental Buoys deployment in 1991-92. Krishfield, R., et al, [1993,eng] 48-3752
See [also]: Remote sensing

Telluric current exploration
See [also]: Electromagnetic prospecting

Temperature

See [also]: Air temperature; Frozen ground temperature; Frozen rock temperature; Ice temperature; Low temperature research; Low temperature tests; Snow surface temperature; Snow temperature; Soil temperature; Surface temperature; Thermal properties; Water temperature

Temperature control

Aircraft icing prevention. Czaplyski, V., [1993,eng] **48-2880**
Application of thermalpile to culvert engineering in permafrost region. Ding, J.K., et al, [1993,eng] **48-375**
Building construction on permafrost foundations. Goncharov, IU.M., [1993,eng] **48-519**
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] **48-4169**
Computer design of terminal heating substations for district heating. Burd, A.L., [1993,eng] **48-2045**
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] **48-2050**
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] **48-2371**
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] **48-600**
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] **48-2597**
Freezing processes used in the food industry. George, R.M., [1993,eng] **48-228**
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] **48-394**
Hybrid electronic control system and method for cold weather garment. Batcheller, B.D., et al, [1991,eng] **48-2250**
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] **48-403**
Method and apparatus for thermal control of automotive components. Inkmann, M.S., et al, [1992,eng] **48-2240**
Open-top devices for manipulating field temperatures in tundra ecosystems. Marion, G.M., et al, [1993,eng] **48-880**
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] **48-347**
Polyolefin composites containing a phase change material. Salyer, I.O., [1991,eng] **48-1366**
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] **48-2601**
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] **48-2600**
Using passive refrigeration to stabilize foundations in cold climates. Yarmak, E., Jr., et al, [1993,eng] **48-2214**

Temperature distribution

Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] **48-459**
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] **48-2632**
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] **48-2904**
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] **48-2537**
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] **48-2455**
Study of thermal distribution in concrete located in cold sea environment. Sakurai, H., et al, [1990,jpn] **48-4667**

Temperature effects

3CaO-SiO2 hydration under decreased temperatures. Kliusov, A.A., [1994,eng] **48-2317**
Activation of stratospheric chlorine by reactions in liquid sulphuric acid. Cox, R.A., et al, [1994,eng] **48-5497**
Adsorption of organic vapors on ice and quartz sand at temperatures below 0 C. Goss, K.U., [1993,eng] **48-4025**
Advances in plant cold hardiness. International Plant Cold Hardiness Seminar, 4th, Uppsala, Sweden, July 1-5, 1991, [1993,eng] **48-1249**
All about ice. Davey, R., et al, [1993,eng] **48-2759**
Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] **48-459**
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] **48-497**
Anisotropic elasticity of polycrystalline ice I(h). Nanthikesan, S., et al, [1994,eng] **48-3250**
Application limit for reducing heave of sulphate saline soil by mixing sodium chloride. Ding, Y.Q., et al, [1993,eng] **48-376**
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] **48-1230**
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] **48-2413**
Asphalt viscoelasticity under high and low temperatures. Hase, M., [1993,ger] **48-607**
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] **48-133**
Astrochemical implications of ice system condensation. Sandford, S.A., et al, [1993,eng] **48-2919**
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] **48-4921**
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] **48-4170**
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] **48-2220**
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] **48-2752**
Cactus freezing tolerance in Canada and the U.S. Loik, M.E., et al, [1993,eng] **48-2559**
Carbon centre types as determined by MAS-CP n.m.r. on frozen fossil fuels. Goldstein, T.P., et al, [1994,eng] **48-4044**
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] **48-351**
Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] **48-4475**
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] **48-3076**
Coefficients of linear expansion of freezing soils. Mordovskii, S.D., et al, [1993,eng] **48-70**
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] **48-1252**
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] **48-4835**
Cold-induced changes in plant freezing tolerance. Monroy, A.F., et al, [1993,eng] **48-1758**
Comparison of pressuremeter test results in sea ice. Steel, A., et al, [1994,eng] **48-4481**
Concrete precooling method by means of dry ice. Takeuchi, H., et al, [1993,eng] **48-2371**
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] **48-5029**
Coupled heat and mass transfer during freeze drying processes. Peng, S.W., et al, [1994,eng] **48-3318**
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] **48-1529**
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] **48-2999**
Debris entrainment at an antarctic glacier bed. Tison, J.L., et al, [1993,eng] **48-2393**
Deep supercooling in woody plant tissues. Ashworth, E.N., [1993,eng] **48-1257**
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] **48-2825**
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] **48-1672**
Dielectric properties of ice at various radio frequencies. Moore, J.C., et al, [1993,eng] **48-3002**
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] **48-1867**
Dielectric properties of supercooled water/alcohol solutions. Noyel, G.A., et al, [1990,eng] **48-5024**
Dielectric spectra of supercooled carbonate solutions. Jorat, L.J., et al, [1990,eng] **48-5056**
Diffuse neutron-scattering study of deuterated ice Ih. Li, J.C., et al, [1994,eng] **48-5154**
Diffusion and CIDEP of H and D atoms in solid H_2O, D_2O and isotopic mixtures. Bartels, D.M., et al, [1992,eng] **48-5032**
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] **48-447**
Dynamic elastic modulus and strength of saturated frozen silt. Ping, H., et al, [1993,eng] **48-395**
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] **48-3394**
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] **48-2367**
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] **48-3194**
Effect of altered climatic variables on ice sheet reconstruction. Hyde, W.T., et al, [1993,eng] **48-947**
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] **48-753**
Effect of climatic changes on arctic permafrost environments. Schmitt, E., [1993,eng] **48-451**
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] **48-2019**
Effects of freezing stress on plant photosynthesis. Bauer, H., et al, [1992,eng] **48-3606**
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] **48-3346**
Electron impact ionization of H2O ice. Safvan, C.P., et al, [1993,eng] **48-341**
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] **48-3520**
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] **48-3834**
Example of a low-temperature-triggered landslide. Govi, M., et al, [1993,eng] **48-3192**
Excipient stabilization of protein freeze-drying. Izutsu, K.I., et al, [1994,eng] **48-4657**
Experimental investigation of optical snow properties. Sergent, C., et al, [1993,eng] **48-1336**
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] **48-486**
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] **48-2373**
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] **48-2111**
Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] **48-644**
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] **48-601**
Formulating automatic transmission fluids with improved low temperature fluidity. Watts, R.F., et al, [1991,eng] **48-3931**
Freeze-thaw action correlated to gold placer formation. Wang, C.H., [1993,eng] **48-476**
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] **48-1260**
Frost-seeding of summer turnip rape in the subarctic. Sparrow, S.D., et al, [1992,eng] **48-2156**
Gas hydrate dissociation regime in highly permeable beds. Tsypkin, G.G., [1993,eng] **48-974**
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] **48-5114**
Glacier mass balance, pt. 2. Application to Greenland ice sheet. Oerlemans, J., et al, [1991,eng] **48-3654**
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] **48-4658**
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] **48-5384**
Global warming and the growth of ice sheets. Ledley, T.S., et al, [1994,eng] **48-3255**
Growth rates of icicles. Maeno, N., et al, [1994,eng] **48-5168**
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] **48-5019**
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] **48-342**
High temperature tests and methods of describing the changes in the characteristics of low-alloy steels. Makarova, I.P., et al, [1990,rus] **48-56**
Hopping and dissipative tunneling of orientation defects in ice. Careri, G., et al, [1994,eng] **48-4703**
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] **48-2213**
Ice accretion on conductors energized by AC or DC. Farzaneh, M., et al, [1994,eng] **48-4263**
Ice film defects derived from isotopic exchange rates. Devlin, J.P., [1991,eng] **48-946**
Ice formation damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] **48-2751**
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] **48-2451**
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] **48-4478**
Ice phase variables in cloud parameterization. Sundqvist, H., [1993,eng] **48-1745**
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] **48-4821**
Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] **48-4807**
Ice triaxial deformation and fracture. Rist, M.A., et al, [1994,eng] **48-5167**
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] **48-2208**
Ice/solid adhesion analyzed with Raman microprobe. Sonwalkar, N., et al, [1993,eng] **48-2048**
Ice: escape & evade. Cox, B., [1990,eng] **48-1919**
Impact of nonstationary temperature effects on the stress state of integrated structures. Sobakin, A.A., et al, [1990,rus] **48-60**
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, L., [1993,eng] **48-3613**
Influence of atmospheric carbon dioxide on tree line extent. D'Arrigo, R.D., et al, [1993,eng] **48-1115**
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] **48-4288**
Influence of salinity on the compressive strength behavior of frozen soils. Wijeweera, H., et al, [1993,eng] **48-483**
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] **48-3785**
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] **48-5155**
Infrared spectra of frozen clay-water system. Mizoguchi, M., et al, [1993,eng] **48-1231**
Infrared study of simulated polar stratospheric cloud chemistry. Horn, A.B., et al, [1994,eng] **48-3811**
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] **48-2512**
Investigation of ice in supercooled clouds, pt.2. Song, N.H., et al, [1994,eng] **48-2556**
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] **48-4285**
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] **48-2146**
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] **48-3922**
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] **48-4851**
Laboratory velocities and attenuation of P-waves in limestones during freeze-thaw cycles. Remy, J.M., et al, [1994,eng] **48-3223**
Lidar observations of cirrus scattering properties. Ansmann, A., et al, [1993,eng] **48-928**
Low temperature crack growth behavior in pipeline steel. Romilly, D.P., [1993,eng] **48-2143**
Low temperature effects on reinforced concrete tanks. Mikhailov, K.V., et al, [1982,eng] **48-5391**
Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] **48-478**
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] **48-2449**
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] **48-3625**
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] **48-4167**
Mechanisms of antarctic stratospheric cloud formation. Gobbi, G.P., et al, [1993,eng] **48-339**
Melting with salt and heating with ice. Bohren, C., [1994,eng] **48-3239**

Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Micromechanics of steel fiber pull-out: rate sensitivity at very low temperatures. Banthia, N., et al, [1992,eng] 48-2080
Microphysical feedback of cirrus cloud in climate change. Suzuki, T., et al, [1993,eng] 48-3500
Microphysical structures of stratiform and cirrus clouds. Heymsfield, A.J., [1993,eng] 48-1880
MLS ClO observations and arctic polar vortex temperatures. Schoeberl, M.R., et al, [1993,eng] 48-4642
Model of frost heaving in cryogenic soils. Grechishchev, S.E., et al, [1993,eng] 48-386
Molecular biology of plant cold hardiness development. Lee, S.P., et al, [1993,eng] 48-1250
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759
Nitric oxide/sulfuric acid reactions at stratospheric temperatures. Fried, A., et al, [1994,eng] 48-3149
Nitrogen ice spectra with application to Triton. Grundy, W.M., et al, [1993,eng] 48-2381
Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645
Noncritical behavior of density fluctuations in supercooled water. Xie, Y.L., et al, [1993,eng] 48-1020
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
Nonlinear fracture analysis of saline ice: size, rate, temperature effects. DeFranco, S.J., et al, [1992,eng] 48-1553
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450
Nucleation of ice. Vali, G., [1991,eng] 48-1119
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] 48-3144
Numerical study of the cloud seeding effects. Ćurić, M., et al, [1990,eng] 48-2081
On the adsorption of NO and NO2 on cold H2O/H2SO4 surfaces. Saastad, O.W., et al, [1993,eng] 48-621
On the distribution of cold air near the vortex edge in the lower stratosphere. Tao, X., et al, [1994,eng] 48-3145
On the nature of photo charge carriers in ice. Petrenko, V.F., et al, [1994,eng] 48-4925
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Pavement performance and low temperature cracking of subarctic and arctic airfields. Vinson, T.S., et al, [1993,eng] 48-472
Permafrost melting and stability of offshore methane hydrates subject to global warming. Hatzikiriakos, S.G., et al, [1994,eng] 48-4938
Permafrost preservation during global warming. Vialov, S.S., et al, [1993,eng] 48-537
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Physiological changes in alpine snowbed plants in Japan. Shibata, O., et al, [1993,eng] 48-939
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Plant physiological responses to polar desert climate. Welker, J.M., et al, [1993,eng] 48-1385
Plant viability as a function of temperature stress. Von Fircks, H.A., et al, [1993,eng] 48-2753
Polarization signatures of frozen and thawed forests of varying environmental state. Kwok, R., et al, [1994,eng] 48-4833
Pressure effects on the hydrogen bond in ice up to 80 GPa. Pruzan, P., [1994,eng] 48-5385
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] 48-4715
Proton stability of high pressure ice at low temperature. Pruzan, P., et al, [1993,eng] 48-2092
Radar backscatter from sea ice during freeze-up. Carlström, A., et al, [1993,eng] 48-1227
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] 48-209
Recent sea-ice retreat west of the Antarctic Peninsula. Jacobs, S.S., et al, [1993,eng] 48-620
Reversible first-order transition between two H_2O amorphs at 0.2 GPa and 135 K. Mishima, O., [1994,eng] 48-3939
Role of ice-binding proteins in frost tolerance of winter rye. Griffith, M., et al, [1993,eng] 48-1254
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Satellite infrared analysis of cloud optical depth. Prata, A.J., et al, [1993,eng] 48-2762
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Seasonal ablation of West Greenland ice sheet margin. Braithwaite, R.J., et al, [1993,eng] 48-2390
Sensitivity to climate change of the mass balance of glaciers in southern Norway. Laumann, T., et al, [1993,eng] 48-3592
Simulation of 1979 stratospheric sudden warming. Manney, G.L., et al, [1994,eng] 48-5005
Simulation of cometary regolith development. Grün, E., et al, [1993,eng] 48-754
Simulation of oil biodegradation under an ice cover. Pelletier, E., et al, [1986,eng] 48-4171
Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967
Simulation of stratospheric heterogeneous nucleation processes. Hanson, D.R., et al, [1993,eng] 48-2471
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] 48-2591
Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754
SO2 uptake on ice spheres: liquid nature of the ice-air interface. Conklin, M.H., et al, [1993,eng] 48-954
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Stratiform cloud structure at negative temperatures. Nevzorov, A.N., et al, [1992,eng] 48-1765
Strength and yield criteria of frozen soil. Ma, W., et al, [1993,eng] 48-431
Stress theory of low-temperature steel brittleness. Yan, X.Q., et al, [1994,eng] 48-5158
Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Studies of the nature of the ordering transformation in ice Ih. Glen, J.W., et al, [1991,eng] 48-945
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147
Sulfur dioxide reactions on ice surfaces. Conklin, M.H., et al, [1993,eng] 48-132
Sulfur dioxide reactions on ice surfaces: implications for dry deposition to snow. Conklin, M.H., et al, [1993,eng] 48-3906
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Temperature effect on the redistribution of microelements in the soil massif. Fedoseeva, V.I., et al, [1993,eng] 48-517
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Temperature-independent relationships for frozen soils: discussion. Juárez-Badillo, E., et al, [1993,eng] 48-1530
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Thermal convection, morphological stability and the dendritic growth of crystals. Koo, K.K., et al, [1992,eng] 48-2894
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Toward the simulation of the effects of the Great Lakes on regional climate. Bates, G.T., et al, [1993,eng] 48-1835
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Temperature gradients
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Creep of piles in frozen sand. Pressnail, K.D., [1991,eng] 48-1461
Depth-hoar crystal growth in the surface layer under high temperature gradient. Fukuzawa, T., et al, [1993,eng] 48-2825
Frost heave characteristics of a clayey silt subjected to small temperature gradients. Konrad, J.M., et al, [1994,eng] 48-3832
Frost heave simulation with segregation potential concept. Shen, M., et al, [1993,eng] 48-452
Growth condition of an ice layer in freezing soils under applied loads: I. Experiment. Takeda, K., et al, [1993,eng] 48-2443
Growth rates of depth hoar (II). Fukuzawa, T., et al, [1992,jpn] 48-3204
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
On the temperature distribution near a cold surface. Yen, Y.C., [1993,eng] 48-2537
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845

Temperature inversions
Internal atmospheric gravity waves near the coast of Antarctica. Egger, J., et al, [1993,eng] 48-1116
Large temperature variations in winter around Svalbard. Enomoto, H., et al, [1993,eng] 48-1856
On the breakup of the nocturnal cooling layer in a basin in snowmelt season. Kodama, Y., et al, [1992,jpn] 48-3207
Periodic temperature inversions in the arctic troposphere. Nagurnyi, A.P., et al, [1993,eng] 48-1825
Recent changes in arctic temperature inversions. Bradley, R.S., et al, [1993,eng] 48-1469

Temperature measurement
Anti-icing valve. Norris, R.M., et al, [1989,eng] 48-4363
Arctic sea ice surface temperature from AVHRR. Lindsay, R.W., et al, [1994,eng] 48-2891
Bottom melting on FRIS: results from different methods. Grosfeld, K., et al, [1992,eng] 48-237
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Comments on "Paleothermometry by control methods" by MacAyeal and others. Dahl-Jensen, D., et al, [1993,eng] 48-2405
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] 48-380
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Freezing-temperature depressions of aqueous potassium hydrogen carbonate. Apelblat, A., [1994,eng] 48-3813
Geophysical research on permafrost of the Upper Engadine. Mühull, D.V., [1993,ger] 48-1386
Ground temperature measurement at a permafrost site. Collins, C.M., et al, [1993,eng] 48-5199
Ice detector probe. Kleven, L.A., [1991,eng] 48-1942
Ice particle concentrations in cumuliform clouds. Rangno, A.L., et al, [1994,eng] 48-4478
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Manual on the use of thermocouples in temperature measurement. Fourth edition.[1993,eng] 48-3080
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] 48-3625
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] 48-464
Method determining the thermal conductivity of frozen soil with the heat flow meter. Tao, Z.X., et al, [1992,chi] 48-1414
Microwave apparatus for monitoring soil temperatures. Il'in, V.A., et al, [1994,eng] 48-2215
MST-88 multichannel temperature data logger. Wang, L.W., et al, [1993,chi] 48-4592
Permafrost conditions along an onshore-offshore transect of the Canadian Beaufort Shelf. Dallimore, S.R., et al, [1993,eng] 48-372
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Simple temperature estimation method in asphalt mixture layers. Maruyama, T., et al, [1993,eng] 48-5080
Snow surface temperature measurements by infrared scanner. Moritz, E., [1986,ger] 48-618
Snow surface temperatures in West Antarctica. Morris, E.M., et al, [1992,eng] 48-782
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
Subsurface sensors for roads. Schrader, C., et al, [1994,eng] 48-4918
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] 48-406
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984
See [also]: Geothermometry

Temperature monitoring
See [also]: Monitors

Temperature regime
See [also]: Thermal regime

Temperature variations
Century of glacier fluctuations in the Lombardy Alps (Italy). Pelfini, M., et al, [1993,ita] 48-4107
Climatic changes in the Austrian Alps during the period 1775-1989. Sneyers, R., et al, [1993,eng] 48-4113
Climatic data derived from firn cores, Queen Maud Land. Isaksson, E., et al, [1994,eng] 48-5307
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Control of ice melting by temperature perturbation. Ho, C.J., et al, [1993,eng] 48-600
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060

Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] 48-2692
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Global warming on trial. Broecker, W.S., [1992,eng] 48-1611
Ice, climate, and sea level; do we know what is happening. Meier, M.F., [1993,eng] 48-4186
Impacts on the Yukon and the Mackenzie Valley. Parker, N., et al, [1992,eng] 48-2038
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Isotopic paleothermometer calibration for Greenland ice cores. Cuffey, K.M., et al, [1994,eng] 48-5170
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] 48-3509
Melting of a porous medium saturated with water near its density maximum. Kececioglu, I., et al, [1993,eng] 48-1614
Melting of snow with double effect of temperature and concentration. Sugawara M., et al, [1993,eng] 48-2342
Modeling Greenland ice sheet sensitivity to climatic changes. Bøggild, C.E., et al, [1994,eng] 48-3518
Northern Hemisphere snow cover and temperature patterns in the 1980s. Ropelewski, C.F., [1993,eng] 48-1789
Norwegian Holocene glacier fluctuations. Nesje, A., et al, [1993,eng] 48-2566
Novel coordinate transformations in boundary value problems. Øzis, T., [1989,eng] 48-3749
Planning in a climate of change: choices under uncertainty. Etkin, D.A., [1992,eng] 48-2032
Radiative feedback of polar stratospheric clouds on antarctic temperatures. Rosenfield, J.E., [1993,eng] 48-622
Response of polar stratospheric clouds to increasing carbon dioxide. Blanchet, J.P., [1989,eng] 48-1476
Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering. Hall, K.J., [1993,eng] 48-390
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] 48-3932
Snow cover and climate. Cohen, J., [1994,eng] 48-4768
Snow cover effect on permafrost temperature. Liang, L.H., et al, [1993,eng] 48-422
Solidification of a liquid on a moving cold plate. Mahmoud, K.G., [1993,eng] 48-1212
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] 48-5291
Temperature variation at eighteen Canadian weather stations. McCormick, G., [1994,eng] 48-3362
Temperature variations in northern high latitudes, 1960-1990. Walsh, J.E., [1993,eng] 48-1790
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Thermal variation in vegetated or snow-covered background scenes and its effect on passive infrared systems. Peck, L., [1993,eng] 48-2535
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Underground records of changing climate. Pollack, H.N., et al, [1993,eng] 48-1936
Warming of a frozen paper roll. Harnel, J., [1993,eng] 48-984

Tensile properties
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Determining strength of frozen soil with radial-split method. Shen, Z.Y., et al, [1992,chi] 48-1418
Dynamic tensile strength of glass fiber reinforced pultruded composites. Dutta, P.K., et al, [1994,eng] 48-3267
Effect of matrix stiffness on wavy fiber behavior in single-carbon-fiber-epoxy composites. Madhukar, M.S., et al, [1994,eng] 48-5150
End-capping procedure for cored ice samples used in tension tests. Richter-Menge, J.A., et al, [1993,eng] 48-3596
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Five-year experience of low-temperature performance of recycled hot mix. Tam, K.K., et al, [1992,eng] 48-2111
High-strain-rate tensile behavior of sedimentary and igneous rocks at low temperatures. Dutta, P.K., et al, [1993,eng] 48-2536
Ice forces on conical piers—numerical and development of design equations. Derradji-Aouat, A., [1994,eng] 48-3364
Laboratory simulation of first-year sea ice mechanical properties. Kuehn, G.A., [1993,eng] 48-3922
Measurement of cleavage strength in ice crystals by a laser spallation technique. Gupta, V., et al, [1994,eng] 48-3787
Prestressed cryogenic concrete. A review of testing in Spain. Elices, M., [1982,eng] 48-5393
Primary research of determining strength of frozen soil with axial-split method. Shen, Z.Y., et al, [1993,chi] 48-1446
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Reinforcing and prestressing steels for cryogenic applications. Whiteley, J.D., et al, [1982,eng] 48-5396
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Relating the occurrence of crevasses to surface strain rates. Vaughan, D.G., [1993,eng] 48-2389
Tensile fracture of saline ice. DeFranco, S.J., [1993,eng] 48-3533
Tensile strength of first-year sea ice. Richter-Menge, J.A., et al, [1993,eng] 48-3587
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] 48-720
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442

Tension
See [also]: Interfacial tension

Terminology
Dictionary of snow and ice. Japanese Society of Snow and Ice (Nihon seppyo gakkai), [1990,jpn] 48-755
Evaluating oil, gas opportunities in western Siberia—reservoir description. Connelly, W., et al, [1992,eng] 48-2447
International classification of seasonal snow on the ground. Colbeck, S.C., et al, [1993,ita] 48-1135
Multi-lingual index of permafrost terms. Van Everdingen, R.O., [1993,eng] 48-470
Palsa-like mounds developed in a mineral substrate, Fox Lake, Yukon Territory. Harris, S.A., [1993,eng] 48-393
Snow-avalanche impact landforms: a brief discussion of terminology. Luckman, B.H., et al, [1994,eng] 48-4371
Specifying air-entrained concrete. Hover, K.C., [1993,eng] 48-2026
Supraglacial lake drainage near Söndre Strömfjord, Greenland. Russell, A.J., [1993,eng] 48-2406
Systematization of the concepts related to Quaternary deposits and to their gravitational slope processes. Korzhenevskii, B.I., [1992,rus] 48-3726
Terminology and classification of road snow and ice. Maeno, N., [1988,jpn] 48-585
Towards a permafrost information and data system. Barry, R.G., et al, [1993,eng] 48-353

Terraces
Extent and regional differentiation of glacio-isostatic shoreline variation in Spitsbergen. Staäblein, G., [1978,eng] 48-3315
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414
Paleomagnetic and Be-10 dating of glaciofluvial terraces. Pavich, M.J., et al, [1993,eng] 48-1499
Remnant periglacial landforms on an Irish plateau. Coxon, P., [1988,eng] 48-2564
Solifluction on permafrost slopes. Guo, D.X., et al, [1993,eng] 48-388

Terrain
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489

Terrain identification
Active and passive remote sensing of ice. Annual report, Oct. 1, 1990-Sep. 30, 1991. Kong, J.A., [1991,eng] 48-3673
Analysis of visible and microwave satellite data for snow mapping in Alaska. Hall, D.K., et al, [1993,eng] 48-2937
Anomalous-scattering region on Triton. Lee, P., et al, [1992,eng] 48-990
Application of ERS-1 active microwave instrumentation data to remote sensing of snow. Hallikainen, M., et al, [1992,eng] 48-2066
Change detection techniques for ERS-1 SAR data. Rignot, E.J.M., et al, [1993,eng] 48-1229
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] 48-786
Correction of radiometric distortions in snow cover imagery. Holecz, F., et al, [1993,eng] 48-1685
Detecting natural winter-related features using ERS-1 SAR images. Weydahl, D.J., [1994,eng] 48-3481
Detecting seasonal changes at Nordic latitudes using ERS-1 SAR images. Weydahl, D.J., [1993,eng] 48-1721
Developing moderate resolution imaging spectroradiometer (MODIS) snow cover algorithm. Riggs, G., et al, [1993,eng] 48-2927
Effect of land-cover type and season in microwave remote sensing of snow. Jääskeläinen, V., et al, [1993,eng] 48-1707
Glacial deposit analysis of ERS-1 SAR data in northern alpine frontland of Munich, Germany. Wang, C., et al, [1993,eng] 48-1720
IGARSS '93. Better understanding of earth environment. International Geoscience and Remote Sensing Symposium, 13th, Tokyo, Japan, Aug. 18-21, 1993, [1993,eng] 48-1678
Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195
Mapping of snow cover by ERS-1 SAR. Solberg, R., [1993,eng] 48-1717
Measuring alpine snow depths by digital photogrammetry. Part 1. Conjugate point identification. Cline, D.W., [1993,eng] 48-2953
Microwave remote sensing of snow using radar and radiometer. Hallikainen, M., et al, [1994,eng] 48-3480
Monitoring the temporal behaviour of land surfaces with ERS-1 wind-scatterometer data. Wiesmann, A., et al, [1994,eng] 48-3469
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097
SAR data for snow cover determination in mountainous regions. Haefner, H., et al, [1994,eng] 48-3479
Satellite detection of the boreal forest-tundra transition. Awaya, Y., et al, [1993,eng] 48-1697
Satellite measurements for studying the cryosphere. Rott, H., [1990,ger] 48-3126
Scene generation for smart weapons operability enhancement. Welsh, J.P., et al, [1993,eng] 48-690
Snow area detection by using AVHRR/NOAA. Kazama, S., et al, [1993,eng] 48-1724
Snow cover development on Potter Peninsula. Wunderle, S., et al, [1994,eng] 48-3482
Spectral reflectance of thin snow. Nolin, A.W., et al, [1991,eng] 48-3712
Terrain characterization for trafficability. Shoop, S.A., [1993,eng] 48-718
Texture analysis of ERS-1 SAR data from the Antarctic Peninsula. Saurer, H., et al, [1994,eng] 48-3454
Theory of SAR radiometric calibration. Ulander, L.M.H., [1990,eng] 48-1772
Validation of SAR data from ERS-1 on Spitsbergen. Lefauconnier, B., et al, [1994,eng] 48-3443
See [also]: Geobotanical interpretation

Test chambers
Ice model tests of a cylindrical structure. Hayward, R., et al, [1993,eng] 48-1842
Model ice developed at the HSVA ice tank. Evers, K.U., et al, [1993,eng] 48-173
Study on ice tank experimentation (part 2). Kitagawa, H., et al, [1993,eng] 48-174
See [also]: Cloud chambers; Cold chambers; Wind tunnels

Test equipment
Facility for hydraulic tests of a frozen soil. Van Klaveren, R.W., et al, [1993,eng] 48-3837
Fracture toughness and crack growth of brackish ice using chevron-notched specimens. Stehn, L., [1994,eng] 48-5178
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403
Soil sampling for trichlorethylene determination. Hewitt, A.D., [1994,eng] 48-3835
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105

Tests
Detection of frozen soils and soil moisture changes beneath highway pavements. Esch, D.C., [1993,eng] 48-380
Dyeing of snow surfaces to observe snow structure. Kovacs, A., [1993,eng] 48-3601
Ecological safety problems connected at North Range (Island of Novaja Zemlja). Dumik, V.P., et al, [1993,eng] 48-4561
Evaluation of antifreeze solutions for use in ice builders. Morissette, B., et al, [1993,eng] 48-4249
Experience of Thyssen-Waas-Vorschiffs on receiving the icebreaker *Mudyug*.[1990,ger] 48-3930
Ice technology—advancing slowly.[1992,eng] 48-3224
Ice-breaking performance of a new arctic research vessel. Kristensen, D.H., et al, [1994,eng] 48-4302
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Migration of plutonium in arctic terrestrial ecosystems. Jaakkola, T., et al, [1993,eng] 48-4562
Oil in pack ice: preliminary results of three experimental spills. Buist, I.A., et al, [1986,eng] 48-4174
Operational performance of the RV *Nathaniel B. Palmer*. Schultz, L.A., et al, [1994,eng] 48-4308
Radioluminescent lights score high in VFR night air taxi tests. Jensen, G.A., et al, [1987,eng] 48-4134
Recent research on alternative deicers at Chevron. Buscemi, C.D., et al, [1992,eng] 48-2089
Snow characterization for traction testing: a survey of techniques used. Shoop, S.A., et al, [1993,eng] 48-1177
See [also]: Bearing tests; Cold weather tests; Environmental tests; Freeze thaw tests; Hardness tests; High pressure tests; Impact tests; Low temperature tests; Mechanical tests; Penetration tests; Pile load tests; Plasticity tests; Soil tests; Strain tests; Ultrasonic tests

Textures
See [also]: Cryogenic textures; Soil texture

Thaw consolidation
Geocryology of pile foundation engineering. Vlasov, V.P., [1993,eng] 48-536
Integrated model of the climatic effects on pavements. Lytton, R.L., et al, [1993,eng] 48-1468
Performance of a water retaining dyke on a discontinuous permafrost foundation. Wittebolle, R.J., et al, [1994,eng] 48-3397
Prediction of stability of solifluction slopes and structures on them. Bondarenko, G.I., [1993,eng] 48-513
Procedure for predicting settlements of thawing bases for engineering calculations. Kazarnovskii, V.D., et al, [1994,eng] 48-2805
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Thaw-consolidation of unsaturated frozen soil. Yang, L.F., et al, [1993,eng] 48-5257

Thaw depth
Active layer thaw calculations using simplified thermal and hydrological parameters. Xia, Z.J., et al, [1993,eng] 48-487
Construction calculation for freeze and thaw depths in soils.[1988,eng] 48-763
Critical polygon size for ice-wedge formation in Svalbard and Antarctica. Matsuoka, N., et al, [1993,eng] 48-434

Discontinuous permafrost distribution in Nepalese mountains. Barsch, D., et al, [1993,eng] 48-354
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] 48-454
Effects of climatic warming on the active layer. Nakayama, T., et al, [1993,eng] 48-441
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions. Skriabin, P.N., et al, [1992,rus] 48-4800
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Forest fire effects on frozen ground thermal regime. Zhou, Y.W., et al, [1993,eng] 48-506
Freeze-thaw dewatering to reclaim oil sands fine tails to a dry landscape. Sego, D.C., et al, [1994,eng] 48-3391
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,chi] 48-4503
Maximum thaw depth in permafrost under black pavement. Cui, J.H., et al, [1993,eng] 48-5201
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] 48-2064
Role of climate on active layer variations, Svalbard. Migala, K., [1993,eng] 48-528
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Seasonal freezing and thawing grounds of Mongolia. Tumurbaatar, D., [1993,eng] 48-5241
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Temperature variations in the active layer of permafrost. Aziz, A., et al, [1993,eng] 48-352
Thawing of seasonal frozen ground at Snowshoe Lake, Alaska. Bilello, M.A., et al, [1993,eng] 48-882
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Using dry mixtures for concreting extended constructions on a frozen foundation. Shifrin, S.A., et al, [1992,rus] 48-1392
See [also]: Active layer

Thaw layer
See [also]: Active layer

Thaw weakening
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] 48-368
Application of thermalpile to culvert engineering in permafrost region. Ding, J.K., et al, [1993,eng] 48-375
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Change of the artificial permafrost table under the roadbed and effect on the roadbed. Mi, H.Z., et al, [1993,eng] 48-436
Climate change influence on highway stability in a permafrost zone. An, W.D., et al, [1993,eng] 48-351
Deformation of thawing dispersed large detrital rocks of cryolite zone. Shesternev, D.M., [1993,eng] 48-5237
Deformed embankments on mari and the ways of their stabilization. Dydyshko, P.I., et al, [1993,eng] 48-378
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] 48-454
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Field study of two road sections during a freeze-thaw cycle. Roy, M., et al, [1992,eng] 48-2113
Long-term shear strength of frost-thaw transit zone. Ding, J.K., et al, [1993,eng] 48-5203
Long-term shear strength of freeze-thaw transition zone. Ding, J.K., et al, [1993,chi] 48-4492
Maintenance of a railway grade over permafrost in Canada. Hayley, D.W., [1989,eng] 48-4135
Monitoring pipeline routes in permafrost terrain. Burgess, M.M., et al, [1993,eng] 48-359
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Peculiarities of pile behavior in thawing soils. Torgashov, Y.Y., [1993,eng] 48-534
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Tamping to control highway frost heave. Tang, X.B., [1993,eng] 48-463
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Viscosity measurements on very wet soils. Shoop, S.A., [1993,eng] 48-1174

Thawing
See [also]: Artificial thawing; Defrosting; Geothermal thawing; Ground thawing; Melting

Thawing rate
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230

Theories
Atmospheric response to a hypothetical Tibetan ice sheet. Lautenschlager, M., et al, [1991,eng] 48-5320
"Captured Ice Shelf" hypothesis and its applicability to the Weichselian glaciation. Erlingsson, U., [1994,eng] 48-4823
Computer model along a flow-line of an ice dome—"captured ice shelf". Erlingsson, U., [1994,eng] 48-4824
Did Tibet cool the world. Paterson, D., [1993,eng] 48-1890
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Friction and hull coatings in ice operations. Mäkinen, E., et al, [1994,eng] 48-4294
Global warming on trial. Broecker, W.S., [1992,eng] 48-1611
Granular avalanche modeling pt.I. Hutter, K., et al, [1993,eng] 48-2501
Ice forces on cones from floes. Nevel, D.E., [1992,eng] 48-1550
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] 48-2557
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Polar mesosphere summer radar echoes: observations and current theories. Cho, J.Y.N., et al, [1993,eng] 48-1649
Role of lithosphere in glacial isostasy. Wolf, D., [1993,eng] 48-1760
Testing the astronomical theory with a coupled climate—ice-sheet model. Berger, A., et al, [1990,eng] 48-13
Theory of ice structures. Dmitriev, V.P., et al, [1993,eng] 48-931
Theory of laser polarization within a crystallizing water cloud. Kachurin, L.G., [1992,eng] 48-1021
Theory of nucleation of ice. Rasmussen, D.H., et al, [1993,eng] 48-1600
Theory of self-organisation in sorted stone stripes. Mulheran, P.A., [1994,eng] 48-3782
Waiting for the polar meltdown. Maslin, M., [1993,eng] 48-1935
See [also]: Analysis (mathematics); Ice age theory

Thermal analysis
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Asphalt concrete low temperature performance. El Hussein, H.M., et al, [1992,eng] 48-2413
Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] 48-2360
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] 48-2597
Electric geophysical exploration by resistance methods during investigations into frozen rocks. Modin, I.N., et al, [1991,rus] 48-1389
Further discussion on the thermal hysteresis of the ice growth inhibitor. Li, Q.Z., et al, [1994,eng] 48-5118
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] 48-4658
Infiltration of water into snow. Conway, H., et al, [1994,eng] 48-4451
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
New heating concept for Inuit housing. Lim, H.T., [1979,eng] 48-4143
Nucleation and crystal growth in a vitrification solution. Mehl, P.M., [1993,eng] 48-2450
Simulation of ice-covered heat pump performance. Kondepudi, S.N., et al, [1993,eng] 48-2151
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443
Thermal model for the seasonal nitrogen cycle on Triton. Hansen, C.J., et al, [1992,eng] 48-1607
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628

Thermal balance
See [also]: Glacier heat balance; Heat balance

Thermal conductivity
Aspects of the circuit board thermal design. Karjalainen, M., [1993,eng] 48-760
Calculation of the thermal conductivity of unsaturated frozen soil near the melting point. Hallet, B., et al, [1993,eng] 48-391
Construction heat engineering. Russia. Gosudarstvennyĭ komitet po delam stroitel'stva, [1986,rus] 48-1286
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskiĭ, V.N., [1982,rus] 48-1287
Dielectric properties of NaCl-doped ice at 9.7 GHz. Matsuoka, T., et al, [1993,eng] 48-1867
Dynamics of marginal ice formation—analysis of an ice-slip-and-fall case. Turner, R.H., et al, [1990,eng] 48-2630
Effect of amorphous ice on comet thermal history. Haruyama, J., et al, [1993,eng] 48-753
Effect of the orientation of a finned surface on the melting of frozen porous media. Sasaguchi, K., et al, [1994,eng] 48-2060
Effects of a porous medium in a flow passage with miter bend. Ichimiya, K., et al, [1993,eng] 48-869
Efficient finite element method for aircraft deicing problems. Huang, J.R., et al, [1993,eng] 48-1371
Equation calculates thawing time around wells completed in permafrost. Kutasov, I.M., [1993,eng] 48-3230
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] 48-492
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Exact solution for the Stefan problem in different geometries. Ramos, M., et al, [1994,eng] 48-2573
Freezing of a water-saturated inclined packed bed of beads. Yang, C.H., et al, [1993,eng] 48-602
Heat conduction problems in crystal growth from the vapor. Nelson, J., [1993,eng] 48-342
Ice growth rates on ice shielded West Dock Causeway Breach bridge piers. Zarling, J.P., et al, [1994,eng] 48-3021
Influence of the Stefan number on interface position. Szilder, K., et al, [1993,eng] 48-2734
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] 48-464
Method determining the thermal conductivity of frozen soil with the heat flow meter. Tao, Z.X., et al, [1992,chi] 48-1414
Modeling the Martian seasonal CO2 cycle, pt.1. Wood, S.E., et al, [1992,eng] 48-987
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Numerical technique for solving temperature field of frozen wall. Gao, X.W., [1993,eng] 48-384
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Solidification of a binary mixture saturating an inclined bed of packed spheres. Yang, C.H., et al, [1993,eng] 48-2455
Study on the general thermal parameters of the frozen NaCl soil. Zhang, L.X., et al, [1993,chi] 48-1436
Thermal conductivity and its determination technique for building insulation materials. Tao, Z.X., et al, [1993,chi] 48-1437
Thermal conductivity of a dry snow cover. Adams, E.E., et al, [1993,eng] 48-2870
Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] 48-872
Upward solidification of a binary solution saturated porous medium. Song, M., et al, [1993,eng] 48-697
Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344

Thermal diffusion
Melting of snow with double effect of temperature and concentration. Sugawara, M., et al, [1993,eng] 48-2342
Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291

Thermal drills
AMANDA project: drilling precise, large-diameter holes using hot water. Koci, B., [1994,eng] 48-5346
BAS hot water drilling on Ronne Ice Shelf, Antarctica. Makinson, K., [1994,eng] 48-5345
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
Borehole drilling for sewage disposal at Asuka Station, East Antarctica. Ishizawa, K., et al, [1994,eng] 48-5347
Development of shallow and deep ice coring devices. Kelley, J.J., et al, [1990,eng] 48-4675
Direct oceanographic observations from under the Rutford flow-line, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Directional drilling in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-5342
Drilling of glacier boreholes with a hydrophilic liquid. Zagorodnov, V.S., et al, [1994,eng] 48-5341
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Hydrophilic liquid in glacier boreholes. Zagorodnov, V.S., et al, [1994,eng] 48-3828
Ice block forming device, using heat carrier stream cutting. Krivoshchekov, IU.V., et al, [1992,eng] 48-5511
Microbiological sampling from deep levels of ice in Antarctica. Bobin, N.E., et al, [1994,eng] 48-5344
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Thermal ice core drilling to 700 m depth at Mizuho Station, East Antarctica. Narita, H., et al, [1994,eng] 48-5343

Thermal effects
See [also]: Temperature effects
Thermal expansion
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] 48-2692
Failure of frozen argillaceous rock in an aqueous medium. Izakson, V.IU., et al, [1993,eng] 48-2373
Frost susceptibility of concrete in near-saturated states. Enüstün, B.V., et al, [1994,eng] 48-5289
Glycol concentration requirements for freeze burst protection. Craig, N.C., et al, [1993,eng] 48-2046
Numerical model for the prediction of surface frost damage to masonry walls. Kralj, B., et al, [1991,eng] 48-4956
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] 48-4715
Thermal ice load against isolated structures. Noponen, J., et al, [1994,eng] 48-5576
Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922
Thermal imagery
See [also]: Infrared photography
Thermal insulation
Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] 48-4917
Cold climate HVAC '94. International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994, [1994,eng] 48-3841
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Composite materials for arctic use. Sakurai, A., et al, [1993,jpn] 48-1041
Creation of water-impervious frozen screens in earth dams in central Yakutia. Chang, R.V., et al, [1993,eng] 48-514
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Ecological and economical thermo-blocks for external walls. Lapsa, V.A., [1994,eng] 48-3877
Effect of thermal insulation depth on tunnel ice prevention. Okada, K., [1992,eng] 48-2597
Effects of a porous medium in a flow passage with miter bend. Ichimiya, K., et al, [1993,eng] 48-869
Effects of foundation insulation and thermosyphons on permafrost. Haynes, F.D., [1993,eng] 48-883
Frost heave prevention design for the rigid canal linings. Zhu, Q., [1993,eng] 48-510
Frost penetration in a railroad tunnel. Okada, K., [1992,eng] 48-2599
General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962
Insulated tunnel liner and rehabilitation system. Weholt, R.L., [1990,eng] 48-2165
Insulator design for icicle prevention in a railway tunnel. Okada, K., [1992,eng] 48-2598
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Low-energy residential housing case studies of energy efficient buildings. Nieminen, J., et al, [1994,eng] 48-3867
Measuring heat conductivity of frozen soil. Tao, Z.X., et al, [1993,eng] 48-464
Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871
New method for estimating the heat effectiveness of a building in extreme climatic conditions. Brodach, M.M., et al, [1994,eng] 48-3874
New requirements for buildings in Lithuania directed to energy savings. Karbauskaite, J., et al, [1994,eng] 48-3857
Prevention of frost damage to canals. Chen, X.B., [1993,eng] 48-5189
Protective clothing against cold. Holmér, I., [1992,eng] 48-4968
Rule-based assembly of architectural details for cold climates in three-dimensions. Seebohm, T., [1994,eng] 48-3882
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] 48-407
Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873
Thermal conductivity and its determination technique for building insulation materials. Tao, Z.X., et al, [1993,chi] 48-1437
Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] 48-872
Thermal coupling of leakage air and heat flows in buildings. Virtanen, M., [1993,eng] 48-761
Thermal insulation for cold climate clothing. Miller, S.D., [1987,eng] 48-4900
Thermostats in an insulated residence with passive solar heating. Berglund, L.G., et al, [1994,eng] 48-3879
Time constraints on measuring building R-values. Flanders, S.N., [1979,eng] 48-4139
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] 48-1840
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438
Twenty-year-old test road with an EPS-concrete base in Austria. Litzka, J.H., et al, [1992,eng] 48-2112
Two similar insulated residences at 61 and 41N latitude. Berglund, H.N., et al, [1994,eng] 48-3868
Use of an infrared scanner and a nuclear meter to find wet insulation in a ballasted roof. Tobiasson, W., et al, [1994,eng] 48-3413
Wind-induced heat transfer through permeable clothing. Kind, R.J., et al, [1993,eng] 48-874
See [also]: Cellular plastics; Pipeline insulation
Thermal measurements
See [also]: Temperature measurement
Thermal pollution
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] 48-5552
Thermal processes
See [also]: Hydrothermal processes
Thermal properties
Fiberglass thermal properties applied to helicopter blade deicer design. El Moussali, F., et al, [1993,eng] 48-2375
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
See [also]: Ice thermal properties; Permafrost thermal properties; Snow thermal properties
Thermal radiation
Infrared emissivity of arctic winter snow. Rees, W.G., [1993,eng] 48-2217
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Thermal regime
Administering countermeasures on embankment thaw settlements of permafrost along the Qinghai Xizang Highway. Cui, J.H., et al, [1993,eng] 48-368
Classification of seasonally freezing soils by their thermal regime. Gilichinskiĭ, D.A., [1993,eng] 48-2276
Cryogenic weathering of a Svalbard coastal cliff. Ødegård, R.S., et al, [1993,eng] 48-634
Decay of a High Arctic lake-ice cover: observations and modelling. Heron, R., et al, [1994,eng] 48-5165
Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil. Badmaeva, S.E., et al, [1992,rus] 48-4793
Effect of temperature cycles on permafrost formation time. Lunardini, V.J., [1993,eng] 48-878
Effects of snow cover on thermal regime of frozen soils. Ma, H., et al, [1993,eng] 48-430
Evaluating variations in the thermal regime of soils during a disturbance of natural conditions. Skriabin, P.N., et al, [1992,rus] 48-4800
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Freeze-thaw and winter temperature of agricultural soils in interior Alaska. Sharratt, B.S., [1993,eng] 48-2737
Frost heave experiments on Norwegian silty soils. Loch, J.P.G., [1977,eng] 48-4258
Hydrothermic regime of long-seasonally freezing soils (exemplified by irrigated leached chernozems). Slesarev, I.V., et al, [1993,eng] 48-2297
Karst morphology in a permafrost environment. Gray, J.T., et al, [1993,eng] 48-385
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Norwegian glacial landforms in relation to ice sheet thermal regime. Sollid, J.L., et al, [1994,eng] 48-4825
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Optimal thermal melioration of soil in climatic conditions of the North. Romanov, P.G., et al, [1992,rus] 48-4791
Quantitative estimation of mass transfer in landscape complexes of northern Russia. Pavlov, A.V., [1993,eng] 48-445
Software for permafrost seepage calculations beneath earth dams. Bitiurin, A.K., et al, [1994,eng] 48-4806
Theoretical approach describing the thermal regime of snow-covered sea ice. Ono, N., et al, [1993,eng] 48-2831
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Thermal regime of alpine permafrost in the upper reach of Urumqi River, Xinjiang, China. Jin, H.J., et al, [1993,eng] 48-406
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Warehouse instability on permafrost bases in BAM. Kazantsev, V.V., [1993,eng] 48-1104
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] 48-3845
Thermal stress
Properties of concrete at very low temperature. Kasami, H., et al, [1982,eng] 48-5394
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Thermal stresses
Approximate evaluation of the stress state of unrated sections of a main gas pipeline. Sosin, T.S., et al, [1990,rus] 48-52
Behavior of a concrete slab cooled to cryogenic temperature. Van Biervliet, L., et al, [1982,eng] 48-5397
Experimental studies of thermal stresses in the ice. Smirnov, V.N., et al, [1993,eng] 48-2692
Heated drilling bit and thermoelastic stresses in an ice core. Nagornov, O.V., et al, [1994,eng] 48-5358
Ice-wedge cracking at a western arctic coastal location. Mackay, J.R., [1993,eng] 48-2208
Low temperature properties of asphalt cements. Wang, D.Y., et al, [1993,eng] 48-5071
Measurement of thermal stresses in asphalt concrete mixtures. Janoo, V.C., et al, [1993,eng] 48-403
Paving material intended to prevent low temperature cracking. Mizushima, T., et al, [1993,eng] 48-5070
Prevention of reflection cracks in asphalt overlay on concrete pavement with glassgrids. Yuge, F., et al, [1993,eng] 48-5068
Proceedings. International Conference on Cryogenic Concrete, 1st, Newcastle upon Tyne, England, Mar. 25-27, 1981, [1982,eng] 48-5390
Quasi-static thermal stresses in the sea ice. Smirnov, V.N., et al, [1994,eng] 48-5578
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Thermal stress measurements in asphalt concrete. Janoo, V.C., et al, [1993,eng] 48-720
Thermally induced stresses in asphalt concrete pavement. El Hussein, H.M., et al, [1993,eng] 48-5069
Thermistors
Operating manual for hybrid thermosyphons at the Gakona Power Plant, Alaska. Haynes, F.D., et al, [1994,eng] 48-5409
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Thermal regime of discontinuous permafrost in Quebec. Haoulani, H., et al, [1993,eng] 48-879
Thermocouples
Manual on the use of thermocouples in temperature measurement. Fourth edition.[1993,eng] 48-3080
Warming of a frozen paper roll. Hamel, J., [1993,eng] 48-984
Thermodynamic properties
Freezing-temperature depressions of aqueous potassium hydrogen carbonate. Apelblat, A., [1994,eng] 48-3813
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] 48-5384
Ice formation upon cooling of cryoprotectant solutions. Boutron, P., [1993,eng] 48-2451
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Noncritical behavior of density fluctuations in supercooled water. Xie, Y.L., et al, [1993,eng] 48-1020
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] 48-4715
Spectroscopy of glycerol supercooling thermodynamics. Grubbs, W.T., et al, [1994,eng] 48-2998
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Thermodynamic stability of clathrate hydrate. Tanaka, H., [1994,eng] 48-4261
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
Thermodynamics
Arctic sea ice variability: model sensitivities and a multidecadal simulation. Chapman, W.L., et al, [1994,eng] 48-2811
Benign, small-scale power unit for the Arctic: the Carnot cycle concept. Lock, G.S.H., [1989,eng] 48-3431
Constitutive relation for sea ice based on thermodynamics and damage mechanics. Xie, Z., et al, [1993,eng] 48-4322
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskiĭ, V.N., [1982,rus] 48-1287
Crack nucleation mechanism in saline ice. Picu, R.C., et al, [1994,eng] 48-4567
Diabatically forced mesoscale circulations in the atmosphere. Lin, C.A., et al, [1991,eng] 48-1672
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] 48-4717
Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270
Freezing processes used in the food industry. George, R.M., [1993,eng] 48-228
General technique for the calculation of formation conditions of natural gas hydrates. Barkan, E.S., et al, [1993,eng] 48-346
Greenland-Norwegian Sea ice-ocean thermodynamic model. Darby, M.S., et al, [1993,eng] 48-980
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Intergranular liquid in solids and premelting of ice. Johari, G.P., et al, [1994,eng] 48-3338
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612

Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Massive early atmosphere on Triton. Lunine, J.I., et al, [1992,eng] 48-1106
Measurement of temperature-dependent ice fraction in frozen foods. Pongsawatmanit, R., et al, [1993,eng] 48-3625
Mechanical properties of frozen rock in a two-phase model. Mordovskii, S.D., et al, [1994,eng] 48-4837
Melting, freezing and colloidal suspensions. Löwen, H., [1994,eng] 48-4020
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Modelling sea ice-mixed layer interaction. Lemke, P., [1993,eng] 48-3729
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
Note on the theory of the Ih-XI transition in ice. Abe, T., et al, [1993,eng] 48-3499
On the initiation of ice sheets. Abe-Ouchi, A., et al, [1993,eng] 48-2853
One-dimensional ice thermodynamics model for the Laurentian Great Lakes. Croley, T.E., II, et al, [1994,eng] 48-4450
Phase diagram for amorphous solid water. Poole, P.H., et al, [1993,eng] 48-2523
Problems of stability of gas-hydrated deposits in cryolithozone. Ershov, E.D., et al, [1992,eng] 48-1897
Proceedings. NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, Sep. 6-12, 1992, [1993,eng] 48-4177
Review of analytical models of sea-ice growth. Leppäranta, M., [1993,eng] 48-2355
Salinity of multivolatile fluid inclusions determined from clathrate hydrate stability. Diamond, L.W., [1994,eng] 48-2634
Sea ice: a factor in influencing climate on short and long time scales. Ledley, T.S., [1993,eng] 48-4203
Sea-ice interactions in polar regions. Van Ypersele, J.P., [1993,eng] 48-3727
Snow equation-of-state. Barthel, J.R., [1990,eng] 48-3614
Thermodynamic predictability of sea ice. Grumbine, R.W., [1994,eng] 48-5164
Thermodynamic-dynamic snow sea-ice model. Oberhuber, J.M., et al, [1993,eng] 48-4210
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Transient response model of low-speed diesel engine in ice-breaking cargo vessels. Larmi, M., [1993,eng] 48-3647
When to defrost a refrigerator. Bejan, A., et al, [1994,eng] 48-3815

See [also]: Frozen ground thermodynamics

Thermoelectric effects
Aircraft icing prevention. Czaplyski, V., [1993,eng] 48-2880
Development of a self-powered heater for low temperature operation. LeSage, B.C., [1994,eng] 48-3098

Thermokarst
Establishment and layout of the station. Huang, Y.Z., ed, et al, [1992,chi] 48-1423
Peat mounds in Canadian permafrost. Seppälä, M., [1988,eng] 48-2565
Present human induced climatic change and cryoecology. Gavrilova, M.K., [1993,eng] 48-5182
Problems in the rational use of alassy. Desiatkin, R.V., [1988,rus] 48-910
Soil-geobotanical characteristics of flood plains in the eastern sector of the arctic. Maksimovich, S.V., et al, [1993,eng] 48-2284

Thermokarst development
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Evaluating the stability of engineering-geocryological conditions during the development of gas deposits in Western Siberia. Minkin, M.A., [1992,rus] 48-4801
Forecasting thermokarst with a computer. Fel'dman, G.M., et al, [1992,rus] 48-4796
Survey of a gas pipeline laid on parts of developed ice wedges. Popov, V.A., [1992,rus] 48-4789
Syngenetic soil salinization during thermokarst alas formation. Desiatkin, R.V., [1993,eng] 48-2318
Thermokarst involutions, Summer Island, Pleistocene Mackenzie Delta, western Canadian Arctic. Murton, J.B., et al, [1993,eng] 48-5049

Thermokarst lakes
Coastal dune development in a thermokarst environment. Ruz, M.H., [1993,eng] 48-5052
Oscillations of New Zealand valley glaciers. Kirkbride, M.P., [1993,eng] 48-1382
Rock glaciers in Italian valleys—a new interpretation. Evin, M., [1991,fre] 48-3648
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358

Thermometry
See [also]: Temperature measurement

Thermopiles
Application of thermalpile to culvert engineering in permafrost region. Ding, J.K., et al, [1993,eng] 48-375

Thermostats
Thermostats in an insulated residence with passive solar heating. Berglund, L.G., et al, [1994,eng] 48-3879

Thickness
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834
Nonfreezing water layer thickness relation to ice pressure. Bardasov, S.A., et al, [1994,eng] 48-3833
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
Penetration fracture of ice plate: 2D analysis and size effect. Li, Y.N., et al, [1994,eng] 48-4815
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020

See [also]: Glacier thickness; Ice cover thickness; Snow depth

Thickness gages
Development of a portable ice-thickness measuring instrument. Joseph, J.C., et al, [1994,eng] 48-3118
Ice thickness measurement system for the Icing Research Tunnel calibration. Gibson, T.L., et al, [1993,eng] 48-4889
Portable radar for ice thickness measurements. Toikka, M., et al, [1994,eng] 48-3103
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] 48-826

Thin sections
Automated image analysis of ice thin sections. Eicken, H., [1993,eng] 48-2397
Crystal growth rates in polar firn. Shoji, H., et al, [1993,eng] 48-2854
Diamond wire-saw cutting of debris-laden ice. Tison, J.L., [1994,eng] 48-5177
Micromorphology of till from Shackleton Range. Van der Meer, J.J.M., et al, [1993,eng] 48-4269
Microstructures in diamictons—evidence of subglacial bed conditions. Menzies, J., et al, [1992,eng] 48-2517
Proposition of a net-like model of snow. Watanabe, Z., [1993,eng] 48-2830
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661

See [also]: Microscope slides

Thixotropy
Dynamic instability of seasonally thawing silty soils. Voznesenskii, E.A., et al, [1994,eng] 48-4840

Thunderstorms
Avalanches generated by snow and thunderstorms in Switzerland. Kerkmann, J., et al, [1993,ita] 48-1132
Experimental investigation of the inductive mechanism of thunderstorm electrification. Brooks, I.M., et al, [1994,eng] 48-4853
Lightning morphology in a tornadic thunderstorm. Ziegler, C.L., et al, [1994,eng] 48-4691
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Oxidation-reduction reactions in growing ice crystals, comment and reply. Gross, G.W., et al, [1991,eng] 48-778
Radar detection of lightning discharges in thunderclouds pt.2. Michimoto, K., [1993,eng] 48-209
Radar detection of thundercloud ice particle distribution. Maekawa, Y., et al, [1993,eng] 48-951
Thunderstorm electrification laboratory experiments and charging mechanisms. Saunders, C.P.R., [1994,eng] 48-4854

Tian Shan
Basic characteristics of the engineering-geocryological conditions of the highlands of inner Tian Shan. Chaus, A.K., [1990,rus] 48-1240
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan. Talipov, M.A., et al, [1990,rus] 48-1237
Basic characteristics of the engineering-geological conditions of the Chuysk and Issyk-Kul' intermontane troughs of Tian-Shan. Talipov, M.A., et al, [1990,rus] 48-1237
Plan for large-scale engineering-geocryological zoning of the highlands of central Tian Shan. Chaus, A.K., [1990,rus] 48-1238
Role of water in the formation of the characteristics of forest soils in northern Tian Shan. Usupaev, Sh.E., [1990,rus] 48-1239

Tibet
Did Tibet cool the wo[illegible]l. Paterson, D., [1993,eng] 48-1890
Dust deposits in Asian glaciers. Wake, C.P., et al, [1993,eng] 48-338
On the Pleistocene glaciation of eastern China and northwestern Tibet. Lehmkuhl, F., et al, [1993,ger] 48-960

—Himalaya Mountains
Influence of Tibetan glaciation on the global climate. Kuhle, M., [1990,spa] 48-2682
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] 48-1817

Tidal currents
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] 48-3944
Anomalous diurnal currents in the vicinity of the Yermak Plateau. Prazuck, C., [1991,eng] 48-4728
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] 48-1279
Diurnal tides in the Arctic Ocean. Kowalik, Z., et al, [1993,eng] 48-979
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Model simulations of the tides in the Barents Sea. Gjevik, B., et al, [1994,eng] 48-3196
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Tidal power station protection from severe sea ice conditions. Karnovich, V.N., et al, [1994,eng] 48-4836
Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] 48-1079
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] 48-1080
Water circulation and flow regimes in Lake Saroma. Takeuchi, T., [1993,eng] 48-1076

See [also]: Ocean currents

Tides
Gravimetric tidal measurements on Filchner Ronne Ice Shelf. Doake, C.S.M., [1992,eng] 48-240
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
Tidal gravity effects on the Ekström ice shelf. Tezkan, B., et al, [1993,eng] 48-231
World sea level and the present mass balance of the antarctic ice sheet. Paterson, W.S.B., [1993,eng] 48-4185

Tien Shan
Altitude variations in ice formation zones on glaciers in Central Tien Shan. Golubev, V.N., et al, [1992,rus] 48-1395
Flow rate of rivers on the northern slope of Ketmen' Ridge during the vegetation period in the flood. Piven', E.N., [1992,rus] 48-4468
Model of calculation of glacial runoff in central Tien Shan glacier system. Aizin, V.B., et al, [1993,eng] 48-4584
Study of glacial runoff regime in central Tien Shan during 1989-1990. Aizin, V.B., et al, [1993,eng] 48-4573

Timberlines
See [also]: Forest lines

Time factor
Permafrost formation time. Lunardini, V.J., [1993,eng] 48-428
Refining de-icing tactics.[1994,eng] 48-3237

Tires
Anti-skid device for tired vehicle wheels. Oda, Y., [1990,eng] 48-2256
Anti-skid spike pins of hard rubber for shoes or vehicle tyres. Yamada, H., [1992,eng] 48-4425
Antiskid device having rotatable crossbands. Koshi, M., [1991,eng] 48-1732
Car tyre for snow and ice usage. Sumitomo Rubber Industries Ltd, [1993,eng] 48-[illegible]27
Correlation of studded tire use and road safety. Øberg, G., et al, [1993,swe] 48-4022
Countermeasures for studded tires in Miyagi Prefecture. Sugiyama, A., [1986,jpn] 48-261
Current status and future prospects of studless tires. Hayashi, H., [1989,jpn] 48-671
Evaluation of frost related effects on pavements—summary report. Mahoney, J.P., [1985,eng] 48-4663
Experimental car and trailer axle cornering characteristics at low friction conditions. Vågstedt, N.G., [1994,eng] 48-3107
Indoor test of ice and snow tires on iced drum tester. Shimizu, K., et al, [1992,jpn] 48-1850
Influences of adjustable tire pressure (CTIS) and anti skid devices when driving in snow. Bernhardsson, S., [1993,eng] 48-1172
Influences of regulation of studded tire in Hokkaido. Asano, M., et al, [1993,eng] 48-1200
Joint tests on stud ravelling. Ito, M., [1988,jpn] 48-570
New information on the differences between studded and unstudded tyres. Mäkelä, T., et al, [1994,eng] 48-3096
Nonmetal antiskid devices for tires. Iwane, M., [1986,jpn] 48-262
Notes on Antarctic aviation. Mellor, M., [1993,eng] 48-1622
Performance test of various tires on roads in snow and ice. Murakuni, M., et al, [1988,jpn] 48-563
Performance tests on winter tires. Ninagawa, K., et al, [1986,jpn] 48-19
Pneumatic radial tire tread with rectangular blocks having side grooves. Kajikawa, A., et al, [1991,eng] 48-1364
Pneumatic tire having expanded outer tread rubber layer. Iwafune, S., et al, [1993,eng] 48-4365
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Pneumatic tyre to improve rigidity of blocks. Yokohama Rubber Company Ltd, [1993,eng] 48-4431
Pneumatic tyre which is good as snow tyre in initial phase as summer tyre with half wear. Yokohama Rubber Company Ltd, [1993,eng] 48-4439
Pneumatic tyre with improved traction and breaking performance. Ohtsu Tire and Rubber Company Ltd, [1993,eng] 48-4432
Pneumatic tyre. Yokohama Rubber Company Ltd, [1993,eng] 48-4438
Popularization of studless tires and changes in traffic conditions. Kaku, T., [1992,jpn] 48-4237
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] 48-1162
Proceedings. International Workshop on Winter Road Management (IWWRM), 1st, Sapporo, Japan, Jan. 26-29, 1993, [1993,eng] 48-1186

Radial tyre for improved braking performance on icy, snow and wet roads. Bridgestone Corporation, [1993,eng] **48-5528**
Regulations on studded tire usage and winter road administration in Japan. Kanzaki, H., et al, [1993,eng] **48-1187**
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] **48-276**
Retractable tire stud. Nicholas, J.G., [1993,eng] **48-1653**
Road freezing countermeasures. Onoda, M., [1987,jpn] **48-548**
Rotary tool for sharpening studs in snowmobile treads. Cooney, K.G., [1991,eng] **48-2230**
Rubber composition for all-weather tires. Kida, M., et al, [1991,eng] **48-2255**
Snow and ice control in Japan and United States. Minsk, L.D., et al, [1993,eng] **48-2673**
Snow chain having a network of diamond shaped openings. Lew, H.S., [1990,eng] **48-2190**
Snow characterization for traction testing: a survey of techniques used. Shoop, S.A., et al, [1993,eng] **48-1177**
Snow tyre having good control stability. Kodama, K., [1993,eng] **48-4433**
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] **48-3105**
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] **48-3489**
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] **48-1840**
Tires with polymer composition and silica filler. Rauline, R., [1993,eng] **48-4367**
Traction device for different size tires. Parker, T.J., III, [1989,eng] **48-4077**
Traction stud. Musselman, J.R., et al, [1993,eng] **48-4366**
Traffic accidents in winter in Hokkaido. Kaku, T., [1993,eng] **48-1199**
Traffic on ice and snow. Øberg, G., [1993,eng] **48-5061**
Tread for pneumatic tire intended for winter driving. Lagnier, A., [1991,eng] **48-1518**
Trends abroad in snow and roads—the problem of studded tires. Kubo, H., [1987,jpn] **48-273**
Tyre slip prevention device. Toyo Tire and Rubber Company Ltd, [1989,eng] **48-4420**
Tyre tread pattern for heavy-duty vehicle travelling on icy road. Ichiki, Y., et al, [1993,eng] **48-5526**
Wheel track rutting due to studded tires. Lundy, J.R., et al, [1992,eng] **48-2088**
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] **48-1167**
Winter maintenance and road safety. Salusjärvi, M., [1993,eng] **48-1198**
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] **48-757**

Tissues
See [also]: Plant tissues

Tools
See [also]: Equipment

Topographic effects
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] **48-3599**
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] **48-4831**
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] **48-5027**
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] **48-1297**
Amplification of tidal currents by overflow on the Iceland-Faeroe Ridge. Perkins, H., et al, [1994,eng] **48-3944**
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] **48-2835**
Avalanche modelling and integration of expert knowledge in the ELSA system. Buisson, L., et al, [1993,eng] **48-2839**
Climate model studies of interactions between ice sheets and the atmosphere-ocean system. Broccoli, A.J., et al, [1993,eng] **48-4194**
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] **48-195**
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] **48-194**
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] **48-1827**
Did Tibet cool the world. Paterson, D., [1993,eng] **48-1890**
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] **48-2827**
Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] **48-3343**
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] **48-2860**
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] **48-2857**
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] **48-2501**
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] **48-4477**
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] **48-3232**
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] **48-4037**
Ice sheet basal flow around large obstacles. Knight, P.G., et al, [1994,eng] **48-5172**
In search of ice-stream sticky spots. Alley, R.B., [1993,eng] **48-3570**
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] **48-414**
Influence of the Alps on a Munich hailstorm. Kurz, M., [1986,ger] **48-617**
Interaction between an ice sheet and its atmospheric boundary layer. Hall, A., et al, [1993,eng] **48-3586**
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] **48-4066**
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] **48-2146**
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] **48-5423**
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] **48-2867**
New functional concepts for marine snowband formation. Andersson, T., et al, [1994,eng] **48-5004**
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] **48-3344**
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] **48-5309**
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] **48-1960**
Patagonian icefields: a glaciological review. Warren, C.R., et al, [1993,eng] **48-2417**
Permafrost and climatic change in northern Canada. Burn, C.R., [1994,eng] **48-5127**
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] **48-4996**
Plastic modelling of glaciers and outlets. Høydal, O.A., [1993,eng] **48-4181**
Pleistocene glaciation in the Tibetan Himalayas. Kuhle, M., [1990,eng] **48-1817**
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] **48-3516**
Snow avalanche runout from two Canadian mountain ranges. Nixon, D.J., et al, [1993,eng] **48-2818**
Snow distribution on crop fields. Scholten, H., [1988,eng] **48-1737**
Snow mapping in alpine regions with synthetic aperture radar. Shi, J.C., et al, [1994,eng] **48-5136**
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] **48-2602**
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] **48-2359**
Stability of extraterrestrial planetary polar frosts. Ingersoll, A.P., et al, [1992,eng] **48-991**
Stratified flow under an ice keel—a numerical approach. Jameel, M.I., et al, [1993,eng] **48-69**
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] **48-4373**
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] **48-3789**
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] **48-1786**
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] **48-5322**
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] **48-2510**
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] **48-12**
Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] **48-3073**
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] **48-4247**
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] **48-410**

Topographic features
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] **48-3599**
Deep radio echo soundings in the vicinity of GRIP and GISP2 drill sites, Greenland. Hempel, L., et al, [1993,eng] **48-4267**
Extraction of antarctic topographic glaciological features from ERS-1 SAR data. Bennat, H., et al, [1994,eng] **48-3438**
Hexagonal ice molecules intercalated between molecular metals. Park, K.M., et al, [1993,eng] **48-1612**
High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] **48-2349**
Ice blisters and ice dolines. Moore, J., [1993,eng] **48-3603**
Ice sheet topography from retracked ERS-1 altimetry. Zwally, H.J., et al, [1994,eng] **48-3441**
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] **48-3589**
If Martian ice caps flow: ablation mechanisms and appearance. Fisher, D.A., [1993,eng] **48-2557**
Intuitive approach to analysing small point-source spatial data sets. Laughlin, G.P., et al, [1993,eng] **48-62**
Radiometric derivation of antarctic ice sheet elevation. Wilson, J.D., et al, [1993,eng] **48-1305**
Surface melting on Barpu Glacier, Karakoram Himalaya. Khan, M.I., [1990,eng] **48-2665**
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] **48-1300**
Uplift of the Sør Rondane Mountains, East Antarctica. Iwata, S., [1993,eng] **48-2755**
See [also]: Bottom topography; Coastal topographic features; Landforms; Landscape types; Nival relief; Pit and mound topography; Polygonal topography

Topographic maps
Airborne-radar studies: Ice Streams A, B, and C, West Antarctica. Retzlaff, R., et al, [1993,eng] **48-3576**
Applied marine geodetic research in polar regions. Hagen, R.A., et al, [1994,eng] **48-5422**
Bathymetric maps of the Arctic Basin sea floor, pt.2. Weber, J.R., [1987,eng] **48-3297**
Densely spaced radar altimeter coverage of antarctic ice shelves. Mantripp, D.R., et al, [1991,eng] **48-11**
Estimating snow avalanche runout distances from topographic data. Fujisawa, K., et al, [1993,eng] **48-2860**
Glaciological data at the Great Wall Station, Dec. 1985-Feb. 1989. Qin, D., ed, [1993,eng] **48-4213**
Ice thickness and surface features of ice streams D and E. Jacobel, R.W., et al, [1992,eng] **48-2622**
Identification of subglacial lakes using ERS-1 radar altimeter. Ridley, J.K., et al, [1993,eng] **48-3589**
Late Cenozoic glacial history of Bransfield Basin. Banfield, L.A., [1994,eng] **48-4246**
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] **48-5423**
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] **48-2619**
Prediction of avalanche hazardous slopes using topographic maps. Moishi, M., [1986,jpn] **48-33**
Regional analysis of the East Coast Iceberg Scour Database. Simms, A.E., [1993,eng] **48-4130**
Thrust of Glacier Torre over itself. Lliboutry, L.A., [1993,eng] **48-3600**
Use of visible satellite imagery over ice sheets. Vaughan, D.G., et al, [1992,eng] **48-917**

Topographic surveys
Accuracy of satellite laser altimetry of ice sheets. Harding, D.J., et al, [1994,eng] **48-4831**
Aircraft control/display system for ice sheet mapping. Wright, C.W., [1992,eng] **48-3790**
Digital coastline of Filchner-Ronne-Schelfeis: interpretation of high quality satellite imagery. Sievers, J., et al, [1991,eng] **48-2**
Glacier geophysical studies for an ice-core site at Taylor Dome: year two. Morse, D.L., et al, [1992,eng] **48-2627**
Mapping the Ekströmisen ice shelf, Antarctica, from GEOSAT radar altimetry. Heidland, K., [1994,eng] **48-5423**
Precise altimetric topography in ice-sheet flow studies. Remy, F., et al, [1993,eng] **48-1322**
Satellite monitoring of ice and snow conditions in the Sør Rondane Mountains, Antarctica. Pattyn, F., et al, [1993,eng] **48-1298**
Statistical evaluation of antarctic glacier radar altimetry. Herzfeld, U.C., et al, [1993,eng] **48-1303**
Toward the satellite monitoring of glacier changes on Mount Kenya. Hastenrath, S., [1993,eng] **48-1330**
Undulating topography on the antarctic ice sheet revealed by NOAA AVHRR images. Seko, K., et al, [1993,eng] **48-1300**

Topography
Ice age paleotopography. Peltier, W.R., [1994,eng] **48-5106**
See [also]: Bottom topography; Coastal topographic features; Pit and mound topography; Polygonal topography

Towers
Atmospheric ice accretion on a high TV- and radio mast in northern Sweden. Fahleson, C., [1994,eng] **48-3964**
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] **48-854**
Prediction of ice loads on a mast using general weather data. Sundin, E., [1994,eng] **48-5573**
Results from full scale measuring of ice and wind loads on a high mast in Sweden. Fahleson, C., [1993,eng] **48-853**
Study of the prevention of ice damage of structure in water in cold regions. Jin, N.C., et al, [1993,eng] **48-407**

Towing
See [also]: Iceberg towing

Tracked vehicles
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] **48-4964**
Apparatus in a turning-track track-laying vehicle. Pohjola, J., [1990,eng] **48-2172**
Belt-type caterpillar for track-laying vehicles and snowmobiles. Oertgen, E., et al, [1991,eng] **48-2226**
Caterpillar Mobil-Trac system's application to cold regions mobility problems. Steinke, D., [1993,eng] **48-1178**
Cold regions test phase for M1A2 tank. Storey, J.B., [1993,eng] **48-1278**
Cross-country mobility of tracked vehicles. Andersson, B., [1993,eng] **48-1169**
Design and evaluation of a towed snow plow for the Small Unit Support Vehicle (SUSV). Richmond, P.W., et al, [1994,eng] **48-3095**
Flexible snowmobile cleat. Simmons, V.M., [1990,eng] **48-2271**
Ice cleat design and testing for tracked military vehicles. Osborne, M.D., [1993,eng] **48-1164**
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] **48-1161**
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] **48-1162**
Prediction of track performance on deep snowpack. Irwin, G.J., et al, [1993,eng] **48-758**

Proceedings of the 1st International Conference on Winter Vehicle Mobility. International Conference on Winter Vehicle Mobility, 1st, Santa Barbara, CA, June 1991. [1993,eng] 48-1160
Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] 48-4965
Track for snow vehicle. Nakano, T., [1990,eng] 48-2269
Track-driven forestry tractor. Minchenko, M.E., [1992,eng] 48-4071
Traction stud. Musselman, J.R., et al, [1993,eng] 48-4366
Ultra-track: the ultimate all-terrain attachable tracks. Jacobson, R., [1993,eng] 48-1179

Tracking (position)
See [also]: Radar tracking

Traction
Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Device for positioning and attaching an auxiliary snow-chain device for motor vehicles. Tschannen, H., [1990,er,g] 48-2198
Easily activated and deactivated traction device for vehicles. Vilhauer, J.E., Jr., [1990,eng] 48-2176
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] 48-454
Experimental car and trailer axle cornering characteristics at low friction conditions. Vågstedt, N.G., [1994,eng] 48-3107
Ice cleat design and testing for tracked military vehicles. Osborne, M.D., [1993,eng] 48-1164
New information on the differences between studded and unstudded tyres. Mäkelä, T., et al, [1994,eng] 48-3096
Pneumatic tire having foamed tread rubber. Mouri, H., et al, [1989,eng] 48-4364
Pneumatic tire suitable for running on snow and ice roads. Takiguchi, E., [1988,eng] 48-4270
Pneumatic tyre to improve rigidity of blocks. Yokohama Rubber Company Ltd, [1993,eng] 48-4431
Pneumatic tyre which is good as snow tyre in initial phase as summer tyre with half wear. Yokohama Rubber Company Ltd, [1993,eng] 48-4439
Pneumatic tyre with improved traction and breaking performance. Ohtsu Tire and Rubber Company Ltd, [1993,eng] 48-4432
Pneumatic tyre. Yokohama Rubber Company Ltd, [1993,eng] 48-4438
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] 48-1162
Prediction of track performance on deep snowpack. Irwin, G.J., et al, [1993,eng] 48-758
Qualitative dynamics of marine ice sheets. Hindmarsh, R.C.A., [1993,eng] 48-4182
Retractable tire stud. Nicholas, J.G., [1993,eng] 48-1653
Snow chain having a network of diamond shaped openings. Lew, H.S., [1990,eng] 48-2190
Snow characterization for traction testing: a survey of techniques used. Shoop, S.A., et al, [1993,eng] 48-1177
Snow tyre having good control stability. Kodama, K., [1993,eng] 48-4433
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Three approaches to winter traction testing using instrumented vehicles. Shoop, S.A., et al, [1994,eng] 48-3105
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489
Traction device for different size tires. Parker, T.J., III, [1989,eng] 48-4077
Traction stud. Musselman, J.R., et al, [1993,eng] 48-4366
Winter traction testing using three different instrumented vehicles. Shoop, S.A., et al, [1993,eng] 48-757
See [also]: Skid resistance

Tractors
Bringing agricultural tractor hydraulics to life at -30 C. Macdonald, D.J., [1994,eng] 48-3097
Bucket attachment for use with snow blade. Long, J.D., [1990,eng] 48-2186
Track-driven forestry tractor. Minchenko, M.E., [1992,eng] 48-4071

Trafficability
Bearing capacity of pavements insulated with polystyrene boards. Myhre, Ø., [1994,eng] 48-4917
Evaluation method of pavement bearing capacity with buried rigid-plate loading apparatus. Kubo, H., [1994,eng] 48-4919
Experience in freezing a polynya. Tavrizov, V.M., [1993,eng] 48-930
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] 48-4916
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Proceedings. International Conference on the Bearing Capacity of Roads and Airfields, 4th, Minneapolis, July 17-21, 1994, [1994,eng] 48-4908
Seasonal variations in pavement strength factors. Hein, D.K., et al, [1993,eng] 48-5088
Seasonal variations in pavement strength. Hein, D.K., et al, [1994,eng] 48-4911
Spatial variability of falling weight deflectometer data: a geostatistical analysis. Kestler, M.A., et al, [1994,eng] 48-4909
Steel reinforcements in asphalt pavements. Senstad, P., et al, [1994,eng] 48-4915
Terrain characterization for trafficability. Shoop, S.A., [1993,eng] 48-718
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489
Traffic and transport on ice cover in Nenjiang River. Xu, B.M., et al, [1992,chi] 48-2018
See [also]: Soil trafficability

Training
See [also]: Education

Transformations
See [also]: Metamorphism (snow); Permafrost transformation; Phase transformations

Transmission
See [also]: Light transmission; Radiation absorption

Transmission line towers
See [also]: Power line supports

Transmission lines
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Determination of ice-shelf bottom melting by time-domain reflectometry. Grosfeld, K., et al, [1993,eng] 48-2398
Development of a meteorological forecast for snow accumulation on transmission lines. Ito, T., et al, [1993,eng] 48-2836
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Field data on transmission line icing collected at the Mount Valin test site. Druez, J., et al, [1994,eng] 48-3020
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
See [also]: Power lines

Transmissivity
Note on solar radiation measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada in summer, 1970 to 1979. Jacobs, J.D., et al, [1983,eng] 48-3344
See [also]: Light transmission; Radiation absorption

Transparence
Aircraft window defroster. Mukherjee, A., [1990,eng] 48-1874
Model of snow melting from pulse irradiation. Chizhov, V.E., [1993,eng] 48-975
Solar radiation in the water bodies of Queen Maud Land. Kaup, E., [1988,eng] 48-2549
Transparency changes in waters of Admiralty Bay. Gurgul, H., et al, [1992,eng] 48-539
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] 48-4271
See [also]: Light transmission; Turbidity

Transpiration
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] 48-2019
See [also]: Evapotranspiration

Transportation
Accidents in the North—some aspects on snowmobile accidents and moose-car collisions. Bjørnstig, U., [1992,eng] 48-4964
Construction material for the new central building at Showa Station. Hannuki, T., et al, [1993,jpn] 48-2877
Container design for frost sensitive arctic freight. Zagoruiko, V.A., et al, [1993,eng] 48-5017
Engineering a 300 km winter haul road in Canada's Arctic. Hayley, D.W., et al, [1994,eng] 48-3374
Impact of climate change on Canadian transportation. Lonergan, S., et al, [1993,eng] 48-599
Logistics options for the Cape Roberts Project. Macfarlane, M., [1992,eng] 48-2322
Low-temperature gas pipelines. Ivantsov, O.M., et al, [1980,rus] 48-2614
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054
Snowmobile accidents in Lapland. Soininen, L., et al, [1992,eng] 48-4965
Snowstorm effects on Birmingham ambulances services, UK. Speakman, D., [1994,eng] 48-3498
Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298
See [also]: Marine transportation; Military transportation; Petroleum transportation; Tanker ships; Water transport

Traverses
Climbing ice. Chouinard, Y., [1978,eng] 48-1930
Correlation of antarctic ice sheet radiometric and ground truth data. Surdyk, S., et al, [1993,eng] 48-1316
Delivery of fuel and construction materials to South Pole Station. DenHartog, S.L., et al, [1993,eng] 48-1001
Dog sled safety on ice. Collins, J., [1994,eng] 48-3270
Exploratory mountaineering: the Arctic Islands of Canada. Cochran, G.V.B., [1993,eng] 48-73
Glacier travel and crevasse rescue. Selters, A., [1990,eng] 48-1934
Glaciological data collected by JARE-33 in 1992. Kamiyama, K., et al, [1994,eng] 48-4766
Modern snow and ice techniques. March, B., [1984,eng] 48-1958
Mountain and arctic warfare from Alexander to Afghanistan. Gregory, B., [1989,eng] 48-1932
Report of R/V cruises in Barents and Greenland Seas. Vinje, T., [1992,eng] 48-2896
Report on the *Professor Multanovsky* cruise, 17 July-27 July 1991. Volkov, V.A., [1992,eng] 48-2908
Sea, ice and rock: sailing and climbing above the Arctic Circle. Bonington, C., et al, [1993,eng] 48-1931
Soldiers on skis: a pictorial memoir of the 10th Mountain Division. Whitlock, F., [1992,eng] 48-1929

Tree lines
See [also]: Forest lines

Trees (plants)
Afforestation experiments reflecting the treeline conditions in southwest Greenland. Ödum, S., [1990,eng] 48-82
Age-dependent tree-ring growth responses of subarctic white spruce to climate. Szeicz, J.M., et al, [1994,eng] 48-4808
Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936
Antioxidant response and winter hardiness in red spruce *(Picea rubens* Sarg.). Doulis, A.G., et al, [1993,eng] 48-4284
Assessing cold tolerance in *Picea* using chlorophyll fluorescence. Adams, G.T., et al, [1993,eng] 48-133
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Changes in North American subalpine tree distribution. Rochefort, R.M., et al, [1994,eng] 48-4944
Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639
Climatic adaptation of Scots pine in Finland. Luomajoki, A., [1993,eng] 48-4060
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
Cold hardening temperature effects on photosynthesis. Hurry, V.M., et al, [1993,eng] 48-1252
Cold-hardiness-specific glutathione reductase isozymes in red spruce. Hausladen, A., et al, [1994,eng] 48-4835
Dendrochronology and glacier variations in the Italian Alps. Baroni, C., et al, [1993,ita] 48-4095
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] 48-1736
Distribution of radiocesium in a sub-alpine birch forest in southern Norway; preliminary results 1992. Blytt, L.D., et al, [1993,eng] 48-4551
Effect of abscisic acid content on apricot frost resistance. Kuzina, G.V., et al, [1993,eng] 48-3194
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Epiphytic lichens as indicators of snow depth. Sonesson, M., et al, [1994,eng] 48-4375
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638
Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649
Forest regeneration at high altitudes in northern Finland. Valkonen, S., [1992,fin] 48-2681
Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] 48-5125
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Frost hardiness in pine seedlings. Dormling, I., [1993,eng] 48-1260
Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377
Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Ice formati damage of supercooling dogwood tissue. Ristic, Z., et al, [1993,eng] 48-2751
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Influence of elevated ozone on freezing tolerance of red spruce seedlings. Waite, C.E., et al, [1994,eng] 48-4288
Larch variation along the treeline in North Korean forests. Šrůtek, M., et al, [1994,eng] 48-4376
Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] 48-84
Latitudinal differentiation of vegetation along the Russo-Finnish border. IUrkovskaia, T.K., et al, [1993,rus] 48-5287
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] 48-2422
Long-term Kolyma air temperature variations from tree rings. Earle, C.J., et al, [1994,eng] 48-3509
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
Physiological response to controlled freezing of attached red spruce branches. Hadley, J.L., et al, [1993,eng] 48-2452
Phytocoenotic structure of *Larix* open woods in the extreme northern forest stand "Ary-Mas". Norin, B.N., [1993,rus] 48-5286

Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] 48-4809
Pine winter photosynthesis affected by summer SO_2 exposure. Strand, M., [1993,eng] 48-4286
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] 48-1383
Post fire tree establishment at the arctic treeline. Landhäusser, S.M., et al, [1993,eng] 48-2764
Purification of enzymes specific for spruce cold hardiness. Hausladen, A., et al, [1994,eng] 48-4834
Rapid natural decline of upper montane forests in the Swedish Scandes. Kullman, L., et al, [1989,eng] 48-3429
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811
Scots pine yield response to simulated global warming. Kellomäki, S., et al, [1993,eng] 48-1650
Severe snow loads on mountain afforestation in Japan. Nitta, R., et al, [1991,eng] 48-3702
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737
Snow-cover condition in Japan and damage of the sugi *(Cryptomeria japonica* D. Don). Taira, H., [1991,eng] 48-3703
Snowfall interception on branches of three conifer species. Schmidt, R.A., et al, [1991,eng] 48-1675
Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648
Spruce frost hardiness correlated to acid rain and mist. Sheppard, L.J., [1994,eng] 48-5420
Stem analysis of a long-lived black spruce clone at treeline. Payette, S., et al, [1994,eng] 48-3508
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134
Willow stem response to subzero temperatures. Von Fircks, H.A., [1993,eng] 48-2628

Trenching
Development of an instrument for cutting frozen ground. Leshchiner, V.B., [1991,rus] 48-651
Effects of terrain disturbance on arctic slope hydrology. Woo, M.K., et al, [1993,eng] 48-484
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Multipurpose icebreaker and offshore construction vessel. Tellefsen, T.P., et al, [1993,eng] 48-4345
On the mechanics of frozen soil cutting. Yu, Q., et al, [1993,eng] 48-759
Prospects of offshore oil and gas pipelines construction on the Russian shelf. Kamyshev, M.A., [1993,eng] 48-4315

Tritium
Distribution and fallout of ^{137}Cs and other radionuclides over Antarctica. Bartarya, S.K., et al, [1993,eng] 48-4535
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, I.IU., [1993,eng] 48-4555
Transport pattern of Siberian river water in the Arctic basin. Östlund, G., [1993,eng] 48-4529

Trucks
See [also]: Motor vehicles

Tundra
Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893
Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151
Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123
Arctic soil mineralization following simulated climate change. Jonasson, S., et al, [1993,eng] 48-1230
Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727
Bacterial flora in soils of western Spitsbergen. Janowiec, M., et al, [1993,eng] 48-4999
Biological recultivation in the North (theory and practice). Archegova, I.B., ed, [1992,rus] 48-4147
Boreal forests and tundra. Apps, M.J., et al, [1993,eng] 48-963
C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714
Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Characteristics of shrubby willow associations in wet and moist habitats (eastern Chukotskiy Peninsula). Sekretareva, N.A., [1992,rus] 48-1625
Classification of meadow communities of the tundra zone on the Taymyr Peninsula: the *Pediculari verticillatae-Astragaletum arctici* association. Zanokha, L.L., [1993,rus] 48-1643
CO_2 monitored fluxes from northern terrestrial ecosystems. Zimov, S.A., et al, [1993,eng] 48-2310
Correlation of Russian, US, and Canadian classification systems for selected tundra and taiga soils (in N-E Russia). Mazhitova, G., et al, [1993,eng] 48-2275
Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560
Development of granular structure in surface horizons of strongly cryoturbated soils. Smith, C.A.S., et al, [1993,eng] 48-2294
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Ecological-geographical problems in the northern Kola Peninsula; collected scientific papers. Kalabin, G.V., ed, et al, [1992,rus] 48-2117
Effect of climate change on arctic tussock tundra. Moorhead, D.L., et al, [1993,eng] 48-2424
Effects of gold mining on permafrost environment Wuma mining area Inner Mongolia of China. Wang, Y.X., [1993,chi] 48-4392
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
Evolution of soil and ground thermal state in permafrost in connection with contemporary global changes of climate. Pavlov, A.V., [1993,eng] 48-2290
Fallout distribution inferred from tundra plant tissues. France, R.L., et al, [1993,eng] 48-968
Flora of the Losyanka River valley (Western Chukotka). Plieva, T.V., [1993,rus] 48-1642
Global change and soil formation in the Antarctic region. Bockheim, J.G., [1993,eng] 48-2286
Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019
Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076
Influence of relief and lithology on soil formation in West Spitsbergen. Klimowicz, Z., et al, [1993,eng] 48-414
Information content of paleobotanical material from eastern Taymyr. Kozhevnikov, IU.P., et al, [1993,rus] 48-1640
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Land resources of West Siberia, problems of their rational use and protection. Gadzhiev, I.M., [1994,eng] 48-2478
LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997
Leafy mosses in the middle current of the Sebayakha River (Central Yamal). Cherniad'eva, I.V., [1993,rus] 48-5283
Lower plant resources of Siberia and their use. Ermolaev, V.I., et al, [1994,eng] 48-2480
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Methane and permafrost soil of the Kolyma-Indigir lowland. Rivkina, E.M., et al, [1993,eng] 48-1887
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
Open-top devices for manipulating field temperatures in tundra ecosystems. Marion, G.M., et al, [1993,eng] 48-880
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
Paleomagnetism of recent deposits in the Bol'shezemel'skaya tundra. Faustov, S.S., et al, [1993,rus] 48-3743
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607
Plant resources of Siberia: their contemporary state and protection. Koropachinskiĭ, I.IU., et al, [1994,eng] 48-2479
Pool and renovation time of soil carbon in northern taiga and tundra of European Russia. Cherkinskii, A.E., et al, [1993,eng] 48-2306
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Post-seminar proceedings of the Joint Russian-American Seminar on Cryopedology and Global Change. Joint Russian-American Seminar on Cryopedology and Global Change, Pushchino, Nov.15-16, 1992, [1993,eng] 48-2272
Psychrophilic methanotroph from tundra soil. Omel'chenko, M.V., et al, [1993,eng] 48-4661
Relation of nitrogen-fixing bacteria to arctic graminoid roots. Nosko, P., et al, [1994,eng] 48-4378
Relocation of major ions in snow along the tundra-taiga ecotone. Pomeroy, J.W., et al, [1993,eng] 48-1155
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Satellite imaging of permafrost after forest fire in China. Liang, F.X., et al, [1993,eng] 48-1730
Seasonal characteristics of thermal processes in tundra soils. Rydén, B.E., [1993,eng] 48-2291
Seasonal emission of methane from the active layer of organic tundra soils—scale and controlling factors. Christensen, T.R., [1993,eng] 48-2308
Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] 48-325
Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] 48-324
Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] 48-323
Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] 48-322
Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] 48-326
Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] 48-321
Second instance of *Populus balsamifera* (Salicaceae) in the eastern part of the Chukotskiy Peninsula. Katenin, A.E., [1993,rus] 48-1646
Siberian permafrost mapping. Meltzer, L.I., [1993,eng] 48-527
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Strategy of developing regions in the European northeast of the USSR. Bratsev, A.P., et al, [1990,rus] 48-5402
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Structure formation dynamics in tundra cryogenic non-gleyed soils (tundra cryozems). Gubin, S.V., [1993,eng] 48-2293
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Supplements and emendations to the list of local flora in the vicinity of the Amguema Bridge (Chukotskiy Peninsula). Kucherov, I.B., [1993,rus] 48-1637
Surface temperatures and albedo from NOAA-AVHRR data in West Greenland. Neururer, A., [1991,ger] 48-764
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Technogenous disturbances and natural reestablishment of vegetation in the subzone of the northern hypoarctic tundras on the Yamal Peninsula. Rebristaia, O.V., et al, [1993,rus] 48-1644
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
Zonal and regional factors in changes to the northern Kola Peninsula ecosystems under conditions of anthropogenic pollution. Makarova, T.D., [1992,rus] 48-2118
Zonality in the dynamics of the seasonally thawed layer in the landscapes of Yakutia. Vasil'ev, I.S., [1993,eng] 48-2543
See [also]: Alpine tundra; Forest tundra

Tunneling (excavation)
Permafrost influence on mountain tunnelling. Ulrich, R., et al, [1993,eng] 48-468

Tunnels
Buksefjorden Hydro Power Scheme, Greenland. Permafrost studies for extension 2. Mai, H.N., et al, [1994,eng] 48-3958
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Implication of tunnel channels for ice sheet hydrology. Brennand, T.A., et al, [1994,eng] 48-5139
Insulated tunnel liner and rehabilitation system. Weholt, R.L., [1990,eng] 48-2165
Principles and application of mechanical ductless ventilation systems. Maevskii, I., [1994,eng] 48-3862
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
See [also]: Ice tunnels; Railroad tunnels; Snow tunnels; Wind tunnels

Turbidity
Air pollution and the air purity conditions in Wudaoliang region. Wen, J., et al, [1992,chi] 48-1486
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Underwater photic environment of two subarctic Icelandic lakes. Heinermann, P.H., et al, [1993,eng] 48-1831
See [also]: Transparence; Visibility

Turbulence
Striped pattern of snowfall and snow cover. Nohguchi, Y., et al, [1993,eng] 48-2823
Turbulence measurements under landfast ice in the high Canadian Arctic. Shirasawa, K., et al, [1993,eng] 48-1081

Turbulent boundary layer
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] 48-2844
Boundary layer under landfast ice in Hudson Bay (IV). Shirasawa, K., et al, [1992,jpn] 48-3213
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] 48-2842

Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Mesoscale cyclogenesis dynamics over the southwestern Ross Sea, Antarctica. Carrasco, J.F., et al, [1993,eng] 48-197
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] 48-313

Turbulent diffusion
3D transport model study of chlorine activation during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5504
Analysis of powder-snow avalanches using three-dimensional topographic data. Fukushima, Y., et al, [1993,eng] 48-2835
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] 48-4170
Bromine-containing source gases during EASOE. Fabian, P., et al, [1994,eng] 48-5445
Contrail transport under atmospheric conditions. Kärcher, B., [1994,eng] 48-5029
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Energy balance model of the Greenland ice sheet. Van de Wal, R.S.W., et al, [1994,eng] 48-3520
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Impact of global NOx sources on the northern latitudes. Levy, H., II, et al, [1993,eng] 48-3050
Influence of gravity waves on stratospheric ozone distribution. Reid, S.J., et al, [1994,eng] 48-5507
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Lead-induced convection: a laboratory perspective. Fernando, H.J.S., et al, [1993,eng] 48-315
Melting of continental ice in the ocean and its impact on surface and bottom waters. Jenkins, A., [1993,eng] 48-4191
Meteorological interpretation of ABLE flight series. Shipham, M.C., et al, [1994,eng] 48-4619
Meteorology and transport of air masses in arctic regions. Iversen, T., [1993,eng] 48-3049
Microwave sounding of southern polar vortex ozone. Manney, G.L., et al, [1993,eng] 48-630
Monitoring N_2O variations in the Scandinavian polar vortex. Bauer, R., et al, [1994,eng] 48-5443
Numerical study on snow transport and drift formation. Uematsu, T., [1993,eng] 48-2841
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Rapid descent of mesospheric air into the stratospheric polar vortex. Fisher, M., et al, [1993,eng] 48-627
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Some case studies of chlorine activation during the EASOE campaign. Pyle, J.A., et al, [1994,eng] 48-5495
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Stratospheric aerosols used to predict antarctic vortices. Thomason, L.W., et al, [1993,eng] 48-2473
Temporal development of ozone within the arctic vortex during the winter of 1991/92. Braathen, G.O., et al, [1994,eng] 48-5489
Three dimensional modelling of chlorine activation in the arctic stratosphere. Kettleborough, J.A., et al, [1994,eng] 48-5505
Three-dimensional transport model study of PSC processing during EASOE. Chipperfield, M.P., et al, [1994,eng] 48-5503
Total reactive nitrogen, N_2O, and ozone in the winter arctic stratosphere. Kondo, Y., et al, [1994,eng] 48-5452
Trajectory influence on winter storm precipitation type. Donaldson, N.R., et al, [1993,eng] 48-1744

Turbulent exchange
Acetone in the atmosphere: distribution, sources, and sinks. Singh, H.B., et al, [1994,eng] 48-4630
Aerial measurements of cirrus clouds dynamics. Gültepe, I., et al, [1993,eng] 48-958
Airborne particles in snow. Heintzenberg, J., et al, [1993,eng] 48-2386
Antarctic ozone and stratospheric cloud observations 1991. Rosen, J.M., et al, [1993,eng] 48-189
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Barotropic simulation of large-scale mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-964
Bering Sea continental shelf circulation. Schumacher, J.D., et al, [1993,eng] 48-1279
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Boundary-layer observations over water and arctic sea-ice during on-ice flow. Brümmer, B., et al, [1994,eng] 48-4649
Canadian tropospheric odd nitrogen species distribution. Talbot, R.W., et al, [1994,eng] 48-4633
Comments on "On the contribution of spray droplets to evaporation". Andreas, E.L., [1994,eng] 48-4023
Correlation between stratospheric temperature, total ozone, and tropospheric weather systems. Petzoldt, K., et al, [1994,eng] 48-5441
Estimate of the flux of stratospheric reactive nitrogen and ozone into the troposphere. Murphy, D.M., et al, [1994,eng] 48-4048
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636
Importance of convective mixing in seasonal ice margin simulations. Houssais, M.N., et al, [1993,eng] 48-978
Katabatic flow over glacier and tundra during GIMEX-91. Duynkerke, P.G., et al, [1994,eng] 48-3513
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Modeling the seasonal cycle of salinity in the Mackenzie shelf/estuary. Omstedt, A., et al, [1994,eng] 48-4413
Ozone mixing in the antarctic polar vortex. Bowman, K.P., et al, [1993,eng] 48-965
Radiation balance and turbulent flux characteristics over Mizuho Station in Antarctica. Liu, S.H., et al, [1993,eng] 48-2100
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Reactive nitrogen oxides and ozone above a taiga woodland. Bakwin, P.S., et al, [1994,eng] 48-4637
Role of turbulent heat fluxes in the energy balance of high alpine snow cover. Plüss, C., et al, [1994,eng] 48-4707
Simulation of North Polar atmospheric chemistry. Douglass, A., et al, [1993,eng] 48-628
Stratospheric input to the arctic troposphere. Dibb, J.E., et al, [1994,eng] 48-4698
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Tropospheric acidic gases over Canadian taiga. Klemm, O., et al, [1994,eng] 48-4622
Turbulent mixing under drifting pack ice in the Weddell Sea. McPhee, M.G., et al, [1994,eng] 48-2554
Upper-ocean measurements of turbulent flux in the western Weddell Sea. McPhee, M.G., et al, [1992,eng] 48-3775

Turbulent flow
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Investigation of turbulent underice flows. Dolgopolova, E.N., [1994,eng] 48-5544
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Model of turbulent flow with drifting snow. Liston, G.E., et al, [1993,eng] 48-2867
Numerical model of flow in channels with sand-dune beds and ice covers. Yoon, J.Y., et al, [1993,eng] 48-1137
Reactive transport of suspended particles: mechanisms and modeling. Mercier, R.S., [1985,eng] 48-4895
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072

Turf
See [also]: Peat

Turkey
Determination of the heating period of the rooms from the climatic comfort viewpoint. Kocaaslan, G., [1994,eng] 48-3847
Snow avalanche disaster of winter 1992 in southeastern Anatolia, Turkey. Gürer, I., [1993,eng] 48-3173
Snow avalanche disaster of winter 1992 in southeastern Anatoliya, Türkiye. Gürer, I., [1993,eng] 48-766

Uganda
—Stanley, Mt.
Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] 48-4104

Ukraine
Estimating snowmelt and typification of water yield from snow for the forest-steppe zone of Ukraine. Manukalo, V.A., et al, [1993,rus] 48-2075
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] 48-4754

—Chernobyl
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991. Roos, P., et al, [1993,eng] 48-4530
Impact of Chernobyl accident on the Kola Peninsula radiation conditions. Semenov, A., [1993,eng] 48-4560
Investigations of radiocaesium in alpine ecosystems in Norway following the Chernobyl accident. Bretten, S., et al, [1993,eng] 48-4553
Radioactivity in polar regions—main sources. Aarkrog, A., [1993,eng] 48-4512

Ultimate strength
Analysis of spatial heterogeneity of ultimate ice compressive strength. Surkov, G.A., et al, [1993,eng] 48-4329
Behaviour of steel at low temperatures. Sleigh, G., [1982,eng] 48-5392
Cracks in structural members and deformed rigid body mechanics. Legan, M.A., et al, [1994,eng] 48-3973
Optimal parameters of internally pressurized opening in permafrost. Gur'ianov, I.E., [1993,eng] 48-521
Post-yield buckling of stiffened panel structures. DesRochers, C.G., et al, [1994,eng] 48-4299

Ultrasonic tests
Detection of oil under ice by ultrasound using multiple element phased arrays. Jones, H.W., et al, [1986,eng] 48-4176
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] 48-2099
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465

Ultraviolet radiation
Detecting UV-induced inhibition of photosynthesis in antarctic phytoplankton. Neale, P.J., et al, [1992,eng] 48-5097
Distribution of UV-absorbing compounds in the antarctic limpet, *Nacella concinna*. Karentz, D., et al, [1992,eng] 48-5096
Effects of ozone depletion on the ultraviolet radiation environment at the Australian stations. Roy, C.R., et al, [1994,eng] 48-4380
Kinetics and photochemistry of halogen oxides relevant to the stratosphere. Mauldin, R.L., III, [1992,eng] 48-3300
Marine primary production under the influence of the antarctic ozone hole: Icecolors '90. Prézelin, B.B., et al, [1994,eng] 48-4387
Measurements of photosynthetic and UVB blocker pigments during the Icecolors '90 expedition. Bidigare, R.R., et al, [1992,eng] 48-5095
Method for mapping antarctic surface ultraviolet radiation using multispectral satellite imagery. Lubin, D., et al, [1994,eng] 48-4384
Modeling of UV penetration through the atmosphere and ocean. Stamnes, K., [1993,eng] 48-3733
NSF's polar network for monitoring ultraviolet radiation. Booth, C.R., et al, [1994,eng] 48-4381
O_2 luminescence from UV-excited H_2O and D_2O ices. Matich, A.J., et al, [1993,eng] 48-2051
Optical measurements. Hökedal, J., et al, [1992,eng] 48-2906
Photoplastic effect on ice. Khusnatdinov, N.N., et al, [1994,eng] 48-4812
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] 48-5469
Possible effects of ozone depletion on the global carbon cycle. Peng, T.H., [1992,eng] 48-1885
Radiation amplification factors: improved formulation accounts for large increases in ultraviolet radiation associated with antarctic ozone depletion. Booth, C.R., et al, [1994,eng] 48-4382
Role of clouds and ozone on spectral ultraviolet-B radiation. Gautier, C., et al, [1994,eng] 48-4385
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] 48-5488
Solar ultraviolet irradiance at Palmer Station, Antarctica. Frederick, J.E., et al, [1994,eng] 48-4383
Temperature dependence of the HNO_3 UV absorption cross sections. Burkholder, J.B., et al, [1993,eng] 48-2472
Theoretical model of ultraviolet light transmission through antarctic sea ice. Perovich, D.K., [1993,eng] 48-3005
Total ozone measured during EASOE by a UV-visible spectrometer which observes stars. Fish, D.J., et al, [1994,eng] 48-5486
Ultraviolet actinic flux in the stratosphere. Schiller, C., et al, [1994,eng] 48-5450
Ultraviolet radiation and bottom-ice algae in McMurdo Sound. Ryan, K.G., et al, [1994,eng] 48-4389
Ultraviolet radiation and phytoplankton photosynthesis in McMurdo area. Neale, P.J., et al, [1994,eng] 48-4386
Ultraviolet radiation effects on marine phytoplankton photosynthesis. Helbling, E.W., et al, [1994,eng] 48-4388
Ultraviolet radiation in Antarctica: measurements and biological effects. Weiler, C.S., ed, et al, [1994,eng] 48-4379
UV absorption by surface constituents of Triton. Stern, S.A., [1993,eng] 48-1214
Will the ozone hole over Antarctica affect the productivity of the southern ocean. El-Sayed, S.Z., [1992,eng] 48-3246

Underground cables
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845

Underground facilities
See [also]: Subsurface structures

Underground ice
See [also]: Ground ice

Underground pipelines
Approximate evaluation of the stress state of unrated sections of a main gas pipeline. Sosin, T.S., et al, [1990,rus] 48-52
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] 48-1117

Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994. [1994,eng] 48-3347
Distinguishing features of pipeline construction in arctic regions. Kharionovskiĭ, V.V., [1994,eng] 48-3990
Engineering and geocryological problems of the development in the North of Yamal. Baulin, V.V., et al, [1994,eng] 48-3404
Estimation of burial depths for pipelines in the Beaufort Sea. Chouinard, L.E., [1993,eng] 48-153
Evaluation of interaction of buried chilled pipeline with soils in taliks using thermodynamic model. Grechishchev, S.E., [1994,eng] 48-3403
Frost action alteration of pipeline-adjacent soil. White, T.L., et al, [1993,eng] 48-482
Frost effects in soil-steel bridges. Abdel-Sayed, G., et al, [1992,eng] 48-2154
Frost heave induced mechanics of buried pipelines. Selvadurai, A.P.S., et al, [1993,eng] 48-2330
Frost heave predictions for Alaskan soils. Hazen, B., et al, [1993,eng] 48-394
Initial performance permafrost slopes: Norman Wells pipeline project, Canada. Hanna, A.J., et al, [1994,eng] 48-3372
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Monitoring and remediation of problems with the buried sewer system in the town of Iqaluit, N.W.T. Hanna, A.J., et al, [1994,eng] 48-3384
Pipelines and laterally loaded piles in elastoplastic medium. Rajani, B., et al, [1993,eng] 48-212
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] 48-5218
Role of heave pressure dependency and soil creep in stress analysis for pipeline frost heave. Nixon, J.F., [1994,eng] 48-3373
Towards rational deformation limit states for buried pipelines. Zhou, Z.L., et al, [1993,eng] 48-4313
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438
Two-dimensional frost-heave model for buried pipelines. Shah, K.R., et al, [1993,eng] 48-2750
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] 48-5211
Uplift of model steel pipelines embedded in polycrystalline ice. Rajani, B., et al, [1993,eng] 48-1013
Uplift resistance of pipelines buried in frozen ground. Nixon, J.F., et al, [1993,eng] 48-442

Underground storage
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428
Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432
Two-dimensional Stefan problem around a cooled buried cylinder. Haoulani, H., et al, [1993,eng] 48-5211
See [also]: Subsurface structures

Underice
See [also]: Ice bottom surface

Undersnow facilities
Construction of the new Neumayer Station in Antarctica. Enss, D., [1992,ger] 48-3243

Underwater acoustics
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Acoustic scale modeling of arctic ice ridges. Williams, H.E.F., [1993,eng] 48-3530
Air-deliverable, ice-penetrating sonobuoy. Feltz, L.V., et al, [1991,eng] 48-3664
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Beaufort Ambient Seismo-Acoustics Beneath Ice Cover (BASIC). Schultz, A., et al, [1993,eng] 48-327
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
Breakthrough in long-term flow measurement? Measurement with an ultrasonic Doppler apparatus. Vischer, D., et al, [1993,ger] 48-1615
CEAREX ambient noise data measured northeast of Svalbard. Cousins, J.D., [1991,eng] 48-4740
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Environmental measurements in the Beaufort Sea, spring 1991. Wen, T., et al, [1992,eng] 48-4741
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Iceberg noises. Zhitkovskiĭ, IU.IU., [1994,eng] 48-4473
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low frequency arctic under-ice reverberation, pt.2. Yang, T.C., et al, [1993,eng] 48-76
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726
Precision navigation under ice cover. Massey, J., [1993,eng] 48-1773
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Transient seismo-acoustic waves in liquid/solid interfaces. Chamuel, J.R., [1991,eng] 48-4724
Under-ice broadband transient measurements and processing. Meredith, R.W., [1992,eng] 48-4744
Under-ice horizontal velocities at Resolute Bay during the SARES experiment. Paquet, J.R.M., et al, [1993,eng] 48-1079
Under-ice movements and the sensory basis of hole finding by ringed and Weddell seals. Wartzok, D., et al, [1992,eng] 48-542
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] 48-1080

Underwater ice
Acoustic detection of ice crystals in antarctic waters. Penrose, J.D., et al, [1994,eng] 48-5006
Submerged ice rubble friction properties. Gulati, K.C., [1992,eng] 48-1541
Underwater frazil ice detector. Daly, S.F., et al, [1991,eng] 48-2221

Underwater permafrost
See [also]: Permafrost beneath lakes; Subsea permafrost

Underwater structures
See [also]: Hydraulic structures

Unfrozen water content
Aircraft icing in VMC below low stratus clouds. Fuchs, W., et al, [1993,eng] 48-856
Analysis of the second phase transition of sodium chloride solution in freezing soil. Zhang, L.X., et al, [1993,eng] 48-497
Changing characteristics of hydraulic diffusivity of unsaturated soil. Deng, Y.S., et al, [1992,chi] 48-1412
Cone penetration strength of saline silty permafrost at Kangiqsualujjuaq, Nunavik (Québec). Fortier, R., et al, [1994,eng] 48-3393
Constitutive model of saturated soils for frost heave simulations. Michalowski, R.L., [1993,eng] 48-2733
Dilatometry of porous limestones undergoing freezing and thawing. Pissart, A., et al, [1993,eng] 48-447
Double-moment multiple-phase four-class bulk ice scheme. Part 1: description. Ferrier, B.S., [1994,eng] 48-3808
Effect of physical properties of frozen ground on electrical resistivity logging. Fortier, R., et al, [1994,eng] 48-5113
Estimation and measurements of transport properties of frozen soils. Yen, Y.C., et al, [1993,eng] 48-492
Experimental study on heat-moisture transfer in Lanzhou loess during freeze-thaw processes. Li, S.X., et al, [1992,chi] 48-1422
Formation, distribution and dynamics of cryopegs, and associated problems of construction. Streletskaia, I.D., [1994,eng] 48-3402
Frost heave in soils: concepts and engineering. Konrad, J.M., [1994,eng] 48-4480
Ice particle growth and cloud electrical structure. Williams, E., et al, [1994,eng] 48-4855
Ice segregation in frozen soils. Aksenov, B.G., [1993,eng] 48-4821
Influence of cyclic freezing-thawing on heat- and mass exchange properties of concrete. Stepanov, A.V., et al, [1994,eng] 48-3956
Law of unfrozen water content change in frozen saline (NaCl) soils. Zhang, L.X., [1992,eng] 48-1402
Mass transfer predictions in partially frozen soil. Giakoumakis, S.G., [1994,eng] 48-4660
Measurement of ice fraction in NaCl solution with FTIR. Mizoguchi, M., et al, [1992,eng] 48-293
Microwave cloud water parameter applied to aircraft icing. Lee, T.F., et al, [1994,eng] 48-5436
Model for water transport and ice lensing in freezing soils. Konrad, J.M., et al, [1993,eng] 48-2430
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] 48-417
Modeling the thermal conductivity of frozen soils. Tarnawski, V.R., et al, [1993,eng] 48-2731
Modelling the interactions between microwaves and a snow/soil system. Leconte, R., [1993,eng] 48-1806
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] 48-2429
Physics of liquid water in frozen powders and soils. Fu, H.Y., et al, [1993,eng] 48-5209
Polarimetric radar of mixed-phase mesoscale precipitation. Ryzhkov, A.V., et al, [1994,eng] 48-3757
Primary study on interface conditions of ice saturated clay. Xu, X.Z., et al, [1993,eng] 48-489
Profiles of freezing point and unfrozen water content around CGWS, Antarctica. Wang, Y.Q., et al, [1993,eng] 48-480
Remote sensing of aircraft icing conditions. Stankov, B.B., et al, [1994,eng] 48-3010
Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258
Second order phase change in saline freezing soil. Zhang, L.X., et al, [1992,chi] 48-1411
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] 48-4874
Snowfall rate and supercooled liquid water content. Adams, W.M., et al, [1993,eng] 48-1725
Subsea permafrost and gas pipeline construction of the Baydaratskaya Bay crossing in Siberia, Russia. Dubikov, G.I., et al, [1994,eng] 48-3407
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Thermodynamics and frozen foods. Kerr, W.L., et al, [1993,eng] 48-337
Thermophysical and electric properties of saline frozen soils. Frolov, A.D., et al, [1993,eng] 48-890
Time delay in the water-ice phase change during soil freezing. Van Loon, W.K.P., et al, [1993,eng] 48-887
Ultrasonic measurements in frozen soils. Thimus, J.F., et al, [1993,eng] 48-465
Unfrozen water content and freeze-thaw in saline soil. Zhang, L.X., et al, [1993,chi] 48-1434
Unfrozen water content in multi-crystal ice. Xu, X.Z., et al, [1993,eng] 48-5255
Unfrozen water content in polycrystal ice. Xu, X.Z., et al, [1993,chi] 48-1435
Unfrozen water types in frozen soils. Ostroumov, V.E., [1993,eng] 48-2298
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Water and ion migration of frozen soils in open system. Ershov, E.D., et al, [1992,eng] 48-1404
Water and solute migration of freezing soils in closed system under temperature gradients. Xu, X.Z., et al, [1992,eng] 48-1403
Wind tunnel evaluation of the Hydro-Quebec rime meter using a Rosemount sensor. Laforte, J.L., et al, [1993,eng] 48-826

United Kingdom
Monitoring snow area and depth with integration of remote sensing and GIS. Xu, H., et al, [1993,eng] 48-2613
Periglacial of Great Britain. Ballantyne, C.K., et al, [1994,eng] 48-5022
Remote sensing of Great Britain snow cover. Archer, D.R., et al, [1994,eng] 48-4708

—Birmingham
Snowstorm effects on Birmingham ambulances services, UK. Speakman, D., [1994,eng] 48-3498

—Northern Ireland
Description of talus debris in Aghla Mountains, Ireland. Wilson, P., [1993,eng] 48-5050

—Scotland
Geochemical analysis of snow samples. Abrahams, P.W., et al, [1993,eng] 48-2047
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Methods of estimating precipitation inputs to the Balquhidder experimental basins, Scotland. Johnson, R.C., et al, [1990,eng] 48-1569
Pinus sylvestris growth at Scottish tree line. James, J.C., et al, [1994,eng] 48-5018
Scottish glaciomarine deposition and tectonics. Benn, D.I., et al, [1993,eng] 48-5011
Scottish Highlands deglaciation correlated to landforms. Bennett, M.R., et al, [1993,eng] 48-3797
Summer snow patches and climate in northeast Scotland, U.K. Watson, A., et al, [1994,eng] 48-4375

—Sellafield
Sellafield as a source of radioactivity to the Barents Sea. Kershaw, P.J., et al, [1993,eng] 48-4531

—Wales
Needle ice processes on a river bank. Lawler, D.M., [1993,eng] 48-136
Non-periglacial stone stripes? An example from North Wales. Bennett, M.R., [1993,eng] 48-300

United States
Atlas of snowfall and snow depth. Cember, R.P., et al, [1993,eng] 48-1108
Avalanche climate and variations in the West: an overview. Mock, C., [1993,eng] 48-1783
Coastwatch SAR applications demonstration—development phase. Pichel, W., et al, [1994,eng] 48-3472
Cyclone tracks and wintertime climate in the mid-Atlantic region of the USA. Knappenberger, P.C., et al, [1993,eng] 48-2596
Freeze/frost data. Koss, W.J., et al, [1988,eng] 48-4399
Holocene marine coastal evolution of the United States. Fairbridge, R.W., [1992,eng] 48-1924
Quaternary coasts of the United States: marine and lacustrine systems. Fletcher, C.H., III, ed. et al, [1992,eng] 48-1923

Seasonal snowfall statistics for selected stations.[1988,eng] 48-3495
SHRP research on snow and ice control. Minsk, L.D., [1993,eng] 48-1191
Snowy year from coast to coast. Ludlum, D.M., [1994,eng] 48-3324
Temperature extremes. Hickcox, D.H., [1994,eng] 48-3325
—Alaska
1993 annual report on Alaska's mineral resources. Schneider, J.L., ed, [1993,eng] 48-3330
Aerosol silicon and associated elements in the arctic high and mid-troposphere. Li, S.M., et al, [1993,eng] 48-3903
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] 48-3902
Alaska Energy Authority PV-diesel hybrid assessment and design program. Durand, S.J., et al, [1991,eng] 48-4757
Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993
Alaska's mineral industry, 1992. Swainbank, R.C., et al, [1993,eng] 48-1139
Alaska's mineral industry 1993: a summary. Bundtzen, T.K., et al, [1994,eng] 48-3114
Analysis of visible and microwave satellite data for snow mapping in Alaska. Hall, D.K., et al, [1993,eng] 48-2937
Building the DEW line. Walker, C.W., [1957,eng] 48-289
Changing climate and permafrost temperatures in the Alaskan Arctic. Zhang, T., et al, [1993,eng] 48-499
Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059
CO_2: better in the Arctic?. Edmonds, J., [1994,eng] 48-4476
Construction on the DEW line. Cheever, M.S., [1957,eng] 48-291
Contamination of arctic air at three sites during a haze event in later winter 1986. Djupström, M., et al, [1993,eng] 48-3913
DEW line's construction seasons. Cheever, M.S., [1957,eng] 48-288
Dry coastal ecosystems of Alaska. Batten, A.R., et al, [1993,eng] 48-1124
Earthquake Alaska—are we prepared. Combellick, R.A., ed, et al, [1994,eng] 48-5035
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115
Fate and effects of crude oil spilled on subarctic permafrost terrain in interior Alaska: fifteen years later. Collins, C.M., et al, [1993,eng] 48-722
Global change and its implications for Alaska. Weller, G., [1992,eng] 48-2031
Global change policy for Alaska. Cole, H., [1992,eng] 48-2042
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Halogens in aerosols in central Alaska. Sturges, W.T., et al, [1993,eng] 48-3910
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] 48-2213
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Implications of Alaskan Holocene carbon balance for global warming. Marion, G.M., et al, [1993,eng] 48-1381
Initiation decision report—arctic nearshore cable installations. Black, S., et al, [1993,eng] 48-1845
Landsat linear features and mineral occurrences in Alaska. Metz, P.A., [1983,eng] 48-800
Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065
Long-term ecological research on the Bonanza Creek experimental forest. Van Cleve, K., et al, [1993,eng] 48-2124
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] 48-4232
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] 48-4228
Modeling *L*-band radar backscatter of Alaskan boreal forest. Wang, Y., et al, [1993,eng] 48-2150
New taxa of the genus *Potentilla* (Rosaceae) from arctic Alaska. [Urtsev, B.A., [1993,rus] 48-5284
Nitrate deposition to the Alaskan snowpack. Jaffe, D.A., et al, [1993,eng] 48-3907
Oil and hazardous substance contingency plan for Alaska. Lautenberger, C., et al, [1993,eng] 48-3717
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] 48-2728
Optimizing bioventing in shallow vadose zones and cold climates. Leeson, A., et al, [1993,eng] 48-347
Oxytropis tananensis—new species of the section *Baicalia* (Fabaceae) from the interior of eastern Alaska. [Urtsev, B.A., [1993,rus] 48-5278
Particulate and snow nitrite in the spring arctic troposphere. Li, S.M., [1993,eng] 48-3909
Passive microwave measurements of tundra and taiga snow covers in Alaska, U.S.A. Sturm, M.A., et al, [1993,eng] 48-1310
Pavement damage factors during spring thaw in Alaska. Coetzee, N.F., et al, [1994,eng] 48-4910
Peat leachmound treatment of residential wastewater in subarctic Alaska. Riznyk, R.Z., et al, [1993,eng] 48-211
Petroleum exploration plays in Alaska, 1989. Powers, R.B., ed, [1993,eng] 48-4045
Potential hazards to shore approaches of arctic pipelines. Vaudrey, K.D., [1991,eng] 48-2704
Problems in the conservation of land and other agricultural resources in the cryolithozone of Alaska. Mironova, N.A., [1988,rus] 48-916
Report on Alaska's oil-spill response 1991-92. Marilyn Heiman and Associates, [1993,eng] 48-4046
Review of the regulatory framework for groundwater quality protection in Alaska. Ashton, B., [1988,eng] 48-2893
Rock-forming metals and Pb in modern Alaskan snow. Hinkley, T.K., [1993,eng] 48-3641
Selection of sanitation alternatives: a strategy for remote Alaskan communities. Olofsson, J.A., et al, [1994,eng] 48-3383
Siting the DEW line radar stations. Brannian, J.D., [1957,eng] 48-290
Snow loads on transmission and distribution lines in Alaska. Peabody, A.B., [1993,eng] 48-842
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Snows of interior Alaska. Shaw, G.E., et al, [1993,eng] 48-2082
Soil classification and climatic zones of Alaska. Ping, C.L., et al, [1993,eng] 48-446
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors. Olofsson, J.A., et al, [1994,eng] 48-3375
Spring sea ice conditions from SAR images near the Alaska coast of the Chukchi Sea. Li, F.C., et al, [1993,eng] 48-1062
Stratigraphy, structure, and geologic synthesis of northern Alaska. Moore, T.E., et al, [1992,eng] 48-292
Stratospheric aerosol increase after Mt. Pinatubo eruption. Iwasaka, Y., et al, [1993,eng] 48-1868
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Subsea permafrost occurrence in the Alaskan continental shelf. Osterkamp, T.E., et al, [1993,eng] 48-443
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Summer thermal regimes in Alaskan permafrost. Hinkel, K.M., et al, [1993,eng] 48-397
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Trans-Alaska pipeline controversy: technology, conservation, and the frontier. Coates, P.A., [1993,eng] 48-5269
Trans-Alaska Pipeline Research Program. Progress report 77-A. Crory, F.E., [1976,eng] 48-3427
Trans-Alaska Pipeline Research Program. Progress report 77-B. Austin, M.A., [1977,eng] 48-3428
Trash bag GPS—adapting GPS equipment to sub-arctic environments. Hartel, M.J.M., [1990,eng] 48-2470
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
Vessel icing in Alaskan waters—1979 to 1984 data set. Pease, C.H., et al, [1985,eng] 48-1143
Warm permafrost soils of interior Alaska. Moore, J.P., et al, [1993,eng] 48-2282
Water resources data [illegible] Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] 48-1462
—Alaska—Alaska Range
1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
—Alaska—Anchorage
Comfort performance of a super-insulated residence with floor heating in Anchorage, Alaska. Berglund, B.L., et al, [1994,eng] 48-3844
Two similar insulated residences at 61 and 41N latitude. Berglund, H.N., et al, [1994,eng] 48-3868
—Alaska—Arctic National Wildlife Refuge
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] 48-3329
—Alaska—Atigun Pass
Burning of diesel oil spill. D'Atri, B., et al, [1993,eng] 48-3719
—Alaska—Barrow
Arctic cloud optical thickness from ground measurements. Leont'eva, E., et al, [1994,eng] 48-4015
Long-term decrease in arctic haze at Barrow, Alaska. Bodhaine, B.A., et al, [1993,eng] 48-949
Meteorological influences on Alaskan ozone destruction. Sturges, W.T., et al, [1993,eng] 48-3897
Stable lead isotope ratios in Alaskan arctic aerosols. Sturges, W.T., et al, [1993,eng] 48-3898
—Alaska—Bering Glacier
Bering Glacier surge and iceberg-calving mechanism at Vitus Lake, Alaska, U.S.A. Lingle, C.S., et al, [1993,eng] 48-3605
Major glacier surge continues. Molnia, B.F., [1993,eng] 48-2159
—Alaska—Birch Creek
Establishing felt-leaf willow from seed to restore Alaskan, U.S.A., floodplain. Cooper, D.J., et al, [1994,eng] 48-3506
—Alaska—Bonanza Creek
Imaging radar for Alaskan taiga ecosystem evaluation. Way, J., et al, [1994,eng] 48-4832
—Alaska—Brooks Range
Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Seismic images of the Brooks Range thrust belt. Levander, A., et al, [1994,eng] 48-5129
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Tectonic dynamics in the Brooks Range, AK. O'Sullivan, P.B., et al, [1993,eng] 48-72
Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438
—Alaska—Caribou-Poker Creeks
Permafrost mapping using GRASS. Haugen, R.K., et al, [1993,eng] 48-5212
—Alaska—Colville Basin
Alaskan rock thermal maturity patterns and hydrocarbon potential. Johnsson, M.J., et al, [1993,eng] 48-3257
—Alaska—Cook Inlet
Deep draft navigation reconnaissance report, Cook Inlet, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-2097
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
Peat stratigraphic indications of Alaskan earthquake frequency. Combellick, R.A., [1994,eng] 48-3564
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] 48-3491
Sedimentological geochronology in Alaskan marshes. Combellick, R.A., et al, [1994,eng] 48-3563
—Alaska—Copper River
International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497
—Alaska—Delta Junction
Urea nitrogen budget for a subarctic agricultural soil. Knight, C.W., et al, [1993,eng] 48-696
—Alaska—Eagle River Flats
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] 48-3491
Uptake and loss of white phosphorus in American kestrels. Nam, S.I., et al, [1994,eng] 48-3222
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska. Racine, C.H., et al, [1993,eng] 48-3792
—Alaska—Eielson Air Force Base
Corrosion control of aircraft weather shelters, Eielson AFB. Byars, H.G., et al, [1993,eng] 48-5429
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
—Alaska—Elmendorf Air Force Base
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Corrosion control of underground oil tanks at Elmendorf AFB. Byars, H.G., et al, [1993,eng] 48-5427
—Alaska—Fairbanks
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] 48-3379
Radar reflection and refraction profiles of seasonal thaw over permafrost in Fairbanks, Alaska. Arcone, S.A., et al, [1993,eng] 48-2064

Surface observation climatic summaries for Fairbanks IAP, Alaska.[1991,eng] 48-4722

—Alaska—Fort Richardson

Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] 48-3033

—Alaska—Glacier Bay

Bibliography of Glacier Bay, AK, 1798-1992. Howe, D.L., ed, et al, [1992,eng] 48-2694

—Alaska—Grewingk Glacier

Debris-slide-initiated Alaskan flood reconstruction. Wiles, G.C., et al, [1992,eng] 48-2332

—Alaska—Gulf of Alaska

Geologic report for the Gulf of Alaska planning area. Risley, D.E., et al, [1992,eng] 48-1263

—Alaska—Imnavait Creek

Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] 48-94

—Alaska—Kenai Mountains

Holocene glacier-climate relation. in Alaskan mountains. Wiles, G.C., et al, [1994,eng] 48-3627

—Alaska—Kenai Peninsula

Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138

—Alaska—King Salmon

Corrosion control of underground oil tanks at King Salmon. Byars, H.G., et al, [1993,eng] 48-5428

Corrosion performance of an oil tank at King Salmon Airport. Boyd, W.K., et al, [1993,eng] 48-5432

—Alaska—Kobuk River

Alaskan valley fluvial response to Quaternary climatic changes. Ashley, G.M., et al, [1993,eng] 48-929

—Alaska—Kodiak Island

Small boat harbor detailed project report and environmental assessment, Ouzinkie, Alaska. U.S. Army Corps of Engineers. Alaska District, [1993,eng] 48-1126

—Alaska—North Slope

Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893

Backscatter from ice growing on shallow lakes. Jeffries, M.O., et al, [1993,eng] 48-1727

C-band backscatter model for lake ice in Alaska. Wakabayashi, H., et al, [1993,eng] 48-1714

Carbon flux in unmanaged arctic ecosystems. Vourlitis, G.L., et al, [1993,eng] 48-1884

Climate, snow cover and permafrost temperatures in Alaska. Zhang, T.J., [1993,eng] 48-5034

Design, construction and operation of an insulated ice drilling pad, North Slope, Alaska. Hazen, B., et al, [1994,eng] 48-3390

Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] 48-2505

North Slope, Alaska magnetostratigraphy. Reynolds, R.L., et al, [1994,eng] 48-3760

Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262

Safe water for villages of the North Slope Borough. Shillington, E.I., et al, [1994,eng] 48-3376

Seasonal snow of the Arctic Slope, Jan. 1986-Jan. 1987. Benson, C.S., [1987,eng] 48-325

Seasonal snow of the Arctic Slope, Jan. 1987-Jan. 1988. Benson, C.S., [1988,eng] 48-324

Seasonal snow of the Arctic Slope, Jan. 1988-Dec. 1988. Benson, C.S., [1989,eng] 48-323

Seasonal snow of the Arctic Slope, Jan. 1989-Dec. 1989. Benson, C.S., [1990,eng] 48-322

Seasonal snow of the Arctic Slope, July 1984-Jan. 1986. Benson, C.S., [1986,eng] 48-326

Seasonal snow of the Arctic Slope, June 1990-Mar. 1991. Benson, C.S., [1991,eng] 48-321

Snowmelt over permafrost area in the arctic Alaska. Kodama, Y., et al, [1990,eng] 48-4670

Surface-transportation networks of the Alaskan North Slope. Tremont, J.D., [1987,eng] 48-3298

—Alaska—Norton Sound

International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497

—Alaska—Point Barrow

Model for remote sensing of anisotropic layers. Nghiem, S.V., et al, [1993,eng] 48-2408

Vertical distribution of bacteria in Arctic sea ice. Gosink, J.J., et al, [1993,eng] 48-2314

—Alaska—Pribilof Islands

Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102

—Alaska—Prudhoe Bay

1990 Endicott Environmental Monitoring Program. Final report. Dewey, R.K., ed, [1994,eng] 48-3523

Natural gas hydrates of the Prudhoe Bay and Kuparuk River area, North Slope, Alaska. Collett, T.S., [1993,eng] 48-2098

North Slope Borough's experiences with incineration. Thomas, J.E., et al, [1989,eng] 48-4136

Producing Prudhoe Bay. Sohio-BP (Standard Oil Company of Ohio-British Petroleum Company), [1978,eng] 48-3328

Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366

—Alaska—Sagavanirktok River

Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287

—Alaska—Saint Lawrence Island

Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska. Munter, J.A., [1994,eng] 48-5101

—Alaska—Shemya Island

Corrosion control design and analysis of the seawall protection project, Shemya, Alaska. Boyd, W.K., et al, [1993,eng] 48-5426

—Alaska—Smith Lake

International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497

—Alaska—Snowshoe Lake

Thawing of seasonal frozen ground at Snowshoe Lake, Alaska. Bilello, M.A., et al, [1993,eng] 48-882

—Alaska—St. Elias Mountains

Character, structure and origin of the basal ice layer of a surge-type glacier. Sharp, M., et al, [1994,eng] 48-5169

—Alaska—Susitna River

International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497

—Alaska—Taku Glacier

Stone roundness of moraines connected with Taku Glacier, southeastern Alaska. Seppälä, M., [1976,eng] 48-1465

—Alaska—Tanana River

Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641

Climate of the Tanana River floodplain near Fairbanks, Alaska. Viereck, L.A., et al, [1993,eng] 48-639

Control of soil development on the Tanana River floodplain, interior Alaska. Van Cleve, K., et al, [1993,eng] 48-643

Effects of saline soils on Tanana River floodplain revegetation. Van Cleve, K., et al, [1993,eng] 48-650

Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637

Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638

Floodplain soil denitrification along the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-644

Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647

Forest management practices on the Tanana River floodplain. Yarie, J., [1993,eng] 48-649

International Correlation Meeting on Permafrost Affected Soils; guide book—Alaska portion, July 1993. Moore, J.P., et al, [1993,eng] 48-2497

Nitrogen mineralization in floodplain soils of the Tanana River. Klingensmith, K.M., et al, [1993,eng] 48-645

Soil nitrification in forest floodplain ecosystems, Tanana River. Van Cleve, K., et al, [1993,eng] 48-646

Soil nitrogen effects on Tanana River floodplain tree succession. Chapin, F.S., III, et al, [1993,eng] 48-648

Tanana River floodplain soil chemistry and forest succession. Yarie, J., et al, [1993,eng] 48-642

Tanana River floodplain soil chemistry. Marion, G.M., et al, [1993,eng] 48-640

—Alaska—Tok

SAR imaging of Alaskan forest fires. Kasischke, E.S., et al, [1994,eng] 48-5137

—Alaska—Toolik Lake

Arctic ecosystem response to change. Hobbie, J.E., [1993,eng] 48-2123

Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814

Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034

—Alaska—Valdez

Valdez initiates sludge disposal operations. Van Hemert, W., et al, [1993,eng] 48-1886

—Alaska—Variegated Glacier

Variegated Glacier, 1973-1981. Data file report-1981. Raymond, C.F., et al, [1988,eng] 48-3331

—Alaska—Wrangell Island

Photosynthetic pigments and CO_2 exchange in plants of high arctic tundra. Gerasimenko, T.V., et al, [1993,eng] 48-3607

—Alaska—Wrangell-Saint Elias National Park and Preserve

Element concentrations in vegetation to monitor air pollution. Crock, J.G., et al, [1993,eng] 48-797

—Alaska—Yukon Flats

Airborne measurements of gases and particles from an Alaskan wildfire. Nance, J.D., et al, [1993,eng] 48-1096

—Appalachians

Glacial and periglacial erosion of the Appalachians. Braun, D.D., [1989,eng] 48-2144

—Arizona

Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] 48-2956

Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752

Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510

—California

Cloud response to two forms of airborne seeding. Deshler, T., et al, [1990,eng] 48-3077

Ice crystal detection in Sierra Nevada orographic storms. Demoz, B.B., et al, [1993,eng] 48-2568

—California—Sierra Nevada

Accumulation and ablation of snow cover in an alpine basin in the Sierra Nevada, USA. Kattelmann, R.C., et al, [1993,eng] 48-2794

Alpine treeline growth variability. Scuderi, L.A., et al, [1993,eng] 48-936

Correlation and prediction of snow water equivalent from snow sensors. McGurk, B.J., et al, [1992,eng] 48-3704

Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] 48-5064

Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] 48-1599

Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526

Implication of debris-covered glaciers for snowline reconstruction. Clark, D.H., et al, [1994,eng] 48-5062

Mapping alpine snow using a spectral mixture modeling technique. Nolin, A.W., et al, [1993,eng] 48-1309

Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] 48-2929

Snowfall and snowpack time series at the Donner Summit, CA, U.S.A. Powell, D.R., et al, [1993,jpn] 48-1965

Snowpack storage and release of nitrogen in the Emerald Lake watershed, Sierra Nevada. Williams, M.W., [1993,eng] 48-2950

—Colorado

Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341

Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] 48-3510

Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695

Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] 48-2369

Hierarchic studies of snow-ecosystem interactions: a 100-year snow-alteration experiment. Walker, D.A., et al, [1993,eng] 48-2970

Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado. Peters, N.E., et al, [1993,eng] 48-2962

Ice-detection system evaluation. Woodham, D., [1991,eng] 48-4896

Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470

Nutrient cycle constraints in alpine tundra communities. Bowman, W.D., et al, [1993,eng] 48-2558

Paleoclimate from isotope, pollen, and fossil data. Rogers, K.L., [1993,eng] 48-1498

Paleohydrologic techniques used to define the spatial occurrence of floods. Jarrett, R.D., [1990,eng] 48-2158

Radiometric modelling of alpine snow cover radiation balance. Duguay, C.R., [1993,eng] 48-1337

Relationships between atmospheric circulation and snowpack in the Gunnison River basin, Colorado. McCabe, G.J., Jr., [1994,eng] 48-4446

Seedling density and mortality patterns among elevations in *Sedum lanceolatum*. Jolls, C.L., et al, [1983,eng] 48-3345

Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502

Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343

Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] 48-2358

Snowmelt runoff forecasts in Colorado with remote sensing. Rango, A., et al, [1990,eng] 48-1596

Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] 48-3342

Topographic influences on Colorado snowstorms. Boatman, J.F., et al, [1984,eng] 48-3073

—Colorado—Denver

Pavement response and pavement performance studies at the new Denver International Airport. Harrison, J.A., et al, [1994,eng] 48-4916

—Colorado—Front Range

Alpine willow response to increased nitrogen availability. Bowman, W.D., et al, [1994,eng] 48-5421

Estimating potential direct insolation to alpine terrain. Isard, S.A., [1983,eng] 48-3343

Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
—Colorado—Pennsylvania Mountain
Alpine plant growth manipulation through snowmelt variation. Galen, C., et al, [1993,eng] 48-961
—Colorado—Pikes Peak
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
—Colorado—Rocky Mountains
Undergraduate field course in meteorology and atmospheric chemistry. Hindman, E.E., [1993,eng] 48-2772
—Connecticut
Two similar insulated residences at 61 and 41N latitude. Berglund, H.N., et al, [1994,eng] 48-3868
—Connecticut River
Automatic, continuous river stage measurement with a millimeter-wave FM-CW radar. Yankielun, N.E., et al, [1993,eng] 48-3492
—Florida
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
—Great Plains
Florida citrus freezes and polar anticyclones in the Great Plains. Rogers, J.C., et al, [1991,eng] 48-5318
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
—Idaho—Salmon River
Stage-frequency of highly variable ice jam events. Zufelt, J.E., et al, [1994,eng] 48-3359
—Illinois
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] 48-5437
—Iowa
Evaluation of selected methods for determining streamflow during periods of ice effect. Melcher, N.B., et al, [1992,eng] 48-1870
Evolution of a university ice lab: IIHR in ice. Schaefer, J., et al, [1992,eng] 48-1536
—Kansas
Surface observation climatic summaries for Fort Riley (Marshall AAF), Kansas.[1991,eng] 48-4723
—Maine
Late Quaternary stratigraphy and evolution of the eastern Gulf of Maine. Bacchus, T.S., [1994,eng] 48-3549
Sea level change and Quaternary sediments off Maine. Kelley, J.T., et al, [1992,eng] 48-1925
—Massachusetts
Evaluation of snowdrift loads on the roof, the blizzard, February 6-7, 1978. Jordan Marsh Company. Central Service Facility, [1978,eng] 48-1871
Evolution and Holocene stratigraphy of Plymouth, Kingston, and Duxbury Bays, Massachusetts. Hill, M.C., et al, [1992,eng] 48-1927
Sedimentary framework of Boston Harbor, Massachusetts. Knebel, H.J., et al, [1992,eng] 48-1926
Surface observation climatic summaries for Fort Devens Ain, Massachusetts.[1991,eng] 48-4720
—Michigan
Southern Michigan's snow belt: modelled impacts on soil temperatures and freezing. Isard, S.A., et al, [1993,eng] 48-2951
—Michigan, Lake
Influence of ice on southern Lake Michigan coastal erosion. Barnes, P.W., et al, [1994,eng] 48-4161
Statistical analysis of a convective boundary layer over Lake Michigan on 10 January 1984. Rozema, D.M., [1991,eng] 48-4745
Video monitoring of nearshore ice in southern Lake Michigan. Kempema, E.W., et al, [1994,eng] 48-4162
—Minnesota
Metro Division snow and ice research field studies 1992-1993 winter season. Barnes, M., [1993,eng] 48-4905
Strains due to load in frozen and thawed flexible pavements. Van Deusen, D.A., et al, [1994,eng] 48-4912
Winter maintenance in Minnesota today and tomorrow. Pletan, R.A., [1993,eng] 48-1207
—Montana
Airborne bidirectional radiances of snow-covered surfaces in Montana, U.S.A. Hall, D.K., et al, [1993,eng] 48-1297
Lulu Pass avalanche. Gamble, S., [1994,eng] 48-4119
Pavement responses to seasonal variations. Zhou, H.P., et al, [1994,eng] 48-4913
Statistical model for maximum avalanche run-out distances in southwest Montana. McKittrick, L.R., et al, [1993,eng] 48-2869
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] 48-3340
—Montana—Glacier National Park
Topographic influences on avalanche path location. Butler, D.R., et al, [1990,eng] 48-12
—Nevada
Interpreting continental oxygen isotope records. Grootes, P.M., [1993,eng] 48-1496
Nevada—Novaya Zemlya. Matushchenko, A.M., et al, [1992,rus] 48-1268
—New England
Snow algae and other microbes in several alpine areas in New England. Hoham, R.W., et al, [1993,eng] 48-2941
—New Hampshire
Avalanche activity in Tuckerman Ravine. Boyne, H., [1994,eng] 48-3274
—New Hampshire—Washington, Mount
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962
—New Jersey
Surface observation climatic summaries for McGuire AFB, New Jersey.[1991,eng] 48-4721
—New York
Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331
Influence of lake morphometry on ice dates. Stewart, K.M., et al, [1990,eng] 48-4401
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] 48-2964
NYTEMP user's manual: a pavement temperature model. Chen, H.J., [1993,eng] 48-1839
Origin and formation of the valley heads moraine system, central New York. Yang, M.Q., [1993,eng] 48-3532
Seasonal snowfall totals to 1992-1993 from 1884-1885 for Oswego, New York. Sykes, R.B., [1993,eng] 48-2959
—New York—Niagara River
1989-1990 operation of the Lake Erie-Niagara River ice boom. International Niagara Working Committee, [1990,eng] 48-2546
—New York—Whiteface Mountain
Red spruce bud mortality at Whiteface Mountain, New York. Hadley, J.L., et al, [1993,eng] 48-1217
—North Dakota
Large aircraft winter operations at small airports: a progress report. Berg, R.L., [1993,eng] 48-2696
—Ohio
Airfield pavement evaluation: Springfield Air National Guard Base, Ohio. Buncher, M.S., et al, [1991,eng] 48-3667
Climatic summary of snowfall and snow depth in the Ohio snowbelt at Chardon. Schmidlin, T.W., [1989,eng] 48-2336
Surface observation climatic summaries for Wright-Patterson AFB, Ohio.[1991,eng] 48-3671
—Oregon
Surface observation climatic summaries (SOCS) for Klamath Falls IAP, Oregon.[1991,eng] 48-3669
—Oregon—Hood, Mount
Budget and effect of superglacial debris on Eliot Glacier, Mount Hood, Oregon. Lundstrom, S.C., [1993,eng] 48-3536
Photogrammetry of Eliot Glacier surface variations, Mt. Hood. Lundstrom, S.C., et al, [1993,eng] 48-1317
—Oregon—Hood National Forest, Mt.
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
—Rocky Mountains
Distribution and abundance of microbial biomass in Rocky Mountain spring snowpacks. Brooks, P.D., et al, [1993,eng] 48-2957
—Sierra Nevada
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
—South Dakota
Bank recession of Lake Sakakawea, ND. Reid, J.R., et al, [1988,eng] 48-2083
Surface observation climatic summaries for Ellsworth AFB, South Dakota.[1991,eng] 48-4742
—Tahoe, Lake
Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090
—Texas
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] 48-2370
—Utah
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Mobile fog dispersion with liquid carbon dioxide. Final report. Peterson, G.E., et al, [1993,eng] 48-3065
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
—Utah—Tushar Mountains
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
—Vermont
Landslide hazards in Vermont. Baskerville, C.A., et al, [1993,eng] 48-3283
Nutrient cycle in high-elevation spruce-fir stands. McNulty, S.G., et al, [1993,eng] 48-1246
—Washington
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Microwave locator of objects buried in snow. Stanford, M., [1994,eng] 48-3275
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] 48-1960
Thermoluminescence dating of Quaternary sediments. Berger, G.W., et al, [1993,eng] 48-3129
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] 48-3236
—Washington—Blue Glacier
Temperate glacier time response from field data. McClung, D.M., et al, [1993,eng] 48-2395
—Washington—Mount Baker
Glacier fluctuations on Mount Baker, U.S.A., 1940-90. Harper, J.T., [1993,eng] 48-2418
—Washington—Puget Sound
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] 48-2359
—Wisconsin
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
—Wyoming
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Ice composition of Wyoming glaciers. Naftz, D.L., et al, [1991,eng] 48-2995
Isotopic indicators of climate in ice cores, Wind River Range, Wyoming. Naftz, D.L., et al, [1993,eng] 48-1497
Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548
Subnivean development of a snowbank geophyte. Hamerlynch, E.P., et al, [1994,eng] 48-3503
—Wyoming—Grand Teton National Park
Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3505
—Wyoming—Grand Teton Range
Avalanches in the Teton Range, summer 1993. Woodmencey, J., [1993,eng] 48-1782
—Wyoming—Wind River Range
Properties of glacial deposits in Wyoming mountain soils. Hall, R.D., et al, [1993,eng] 48-2421
—Wyoming—Yellowstone National Park
Estimating localized SWE on the Yellowstone northern range. Farnes, P.E., et al, [1993,eng] 48-2928
Lodgepole pine invasion of subalpine meadows. Jakubos, B., et al, [1993,eng] 48-2422
Unloading
Cracking of ice during rapid unloading. Couture, M.L., et al, [1994,eng] 48-2748
Unsteady flow
Granular avalanche modeling pt.1. Hutter, K., et al, [1993,eng] 48-2501
Post-stable fluidelastic behavior of a tube bundle. Lever, J.H., et al, [1993,eng] 48-294
Uncertainties in flow modeling and forecasting for Niagara River. Crissman, R.D., et al, [1993,eng] 48-1878
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] 48-1242
Upwelling
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Coupled ice-ocean variability in the Greenland Sea. Roach, A.T., et al, [1993,eng] 48-2352
Formation of a haline shelf front in wintertime in an ice-covered arctic sea. Melling, H., [1993,eng] 48-1616
Ice crystal orientation effect on light scattering in clouds. Masuda, K., et al, [1989,eng] 48-1475
Northeast water polynya: *Polar Sea* cruise results. NEWATER Steering Committee and Principal Investigators, [1993,eng] 48-2148
Physical/biological interactions in arctic seas. Smith, W.O., Jr., et al, [1993,eng] 48-1510
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Urban planning
Analysis of snowfall characteristics and various snow disasters in urban area. Suzuki, T., et al, [1993,jpn] 48-2003
Emergency readiness in heavy snow region. Part 1. Yamagata, T., et al, [1993,jpn] 48-1978
Future aspects of cities in snowy region. Izumi, M., et al, [1993,jpn] 48-1977
Geoecological characteristics of Siberian cities. Antipov, A.N., ed, [1990,rus] 48-3725
Making a snowproof town—Nagaoka New Town. Nishida, T., [1988,jpn] 48-559
Planning for snow removal. Girard, Y., [1993,eng] 48-2044
Positioning of houses on lots in snow districts. Fukazawa, D., [1993,jpn] 48-1985
Snow removal options based on inhabitant preferences. Miyakoshi, K., et al, [1993,eng] 48-2849
Sustainable urban development in cold climate. Lundborg, G., [1994,eng] 48-3883
Winter cities NOW. Shiraishi, S., et al, [1989,jpn] 48-713
Urea
High frequency acoustic properties of urea ice. Vahanvaty, M.A., [1990,eng] 48-2695
Urethane foam
See [also]: Cellular plastics
Utilities
Arctic and subarctic construction: utilities.[1987,eng] 48-1141

Construction of electrical substations in discontinuous permafrost regions. Huneault, P.A., et al, [1993,eng] 48-402

Vacuum freezing

Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612

Spectroscopy of ice grown on solid surfaces. Takagi, N., et al, [1993,eng] 48-1917

Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889

Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147

Valleys

Bering Glacier model applied to New York Appalachian deglaciation. Fleisher, P.J., [1993,eng] 48-2331

Effect of a drowned river valley on the thermal regime of long term seasonally freezing soil. Badmaeva, S.E., et al, [1992,rus] 48-4793

Flora of the Losyanka River valley (Western Chukotka). Plieva, T.V., [1993,rus] 48-1642

Fluvial lithomorphogenesis in the Protva River valley. Antonov, S.I., et al, [1993,rus] 48-3742

Glacioisostatic influence on the erosion-accumulative processes in river valleys in glaciation marginal zones. Antonov, S.I., et al, [1992,rus] 48-1398

On the breakup of the nocturnal cooling layer in a basin in snowmelt season. Kodama, Y., et al, [1992,jpn] 48-3207

Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651

Outlet glacier trough size-drainage area relationships, Fiordland, New Zealand. Augustinus, P.C., [1992,eng] 48-2333

Pleistocene glaciation in Seymour Valley, British Columbia. Lian, O.B., et al, [1993,eng] 48-971

Soil cover of river valleys of the Yamal Peninsula. Gafurov, F.G., [1993,eng] 48-2283

Trace-behavior in meltwater brines, Wright Valley, Antarctica. Webster, J.G., [1994,eng] 48-4259

Valves

Anti-icing valve. Norris, R.M., et al, [1989,eng] 48-4363

Controller valve for deicer. Hlavac, K.A., [1992,eng] 48-1368

Vapor

See [also]: Water vapor

Vapor barriers

Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876

General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008

Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962

Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848

Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871

Rule-based assembly of architectural details for cold climates in three-dimensions. Seebohm, T., [1994,eng] 48-3882

Thermal and moisture response of fibrous insulation. Simonson, C.J., et al, [1994,eng] 48-3873

Thermal conductivity of pipe insulations during condensation. Wijeysundera, N.E., et al, [1993,eng] 48-872

Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438

Vapor compression

Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612

Vapor diffusion

Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] 48-1749

Diffusion and solubility of HCl in ice: preliminary results. Dominé, F., et al, [1994,eng] 48-4697

Dry snow pack model. Gray, J.M.N.T., et al, [1994,eng] 48-3249

Hygroscopic aerosol growth in a static cold environment. Yen, Y.C., [1991,eng] 48-1841

Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210

Model predicting ice particle size of cirrus clouds, pt.1. Mitchell, D.L., [1994,eng] 48-4689

Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] 48-871

Quasi-steady temperature gradient metamorphism in idealized dry snow. Christon, M., et al, [1994,eng] 48-4166

Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344

Vapor pressure

Cloud ice crystal growth by vapor deposition. Chen, J.P., et al, [1994,eng] 48-4475

Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] 48-3834

Experimental low-temperature physics. Kent, A., [1993,eng] 48-5270

High-velocity impacts of dust particles in low-temperature water ice. Eichhorn, K., et al, [1993,eng] 48-2349

Investigation of the isotope hydrology in the snow cover on Pico de Tiede (Tenerife). Becht, M., et al, [1991,ger] 48-3659

Physical chemistry of the H_2SO_4/H_2O binary system at low temperatures: stratospheric implications. Zhang, R.Y., et al, [1993,eng] 48-2315

Role of pit membrane structure in deep supercooling of xylem parenchyma. Wisniewski, M., et al, [1993,eng] 48-1258

Simulation of heterogeneous reactions within polar stratospheric clouds. Chu, L.T., et al, [1993,eng] 48-2463

Simulation of polar stratospheric cloud chemical reactions. Zhang, R.Y., et al, [1993,eng] 48-967

Stratospheric implications of heterogeneous chlorine interactions. Zhang, R.Y., et al, [1994,eng] 48-3810

Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147

Vacuum freeze drying of vial-enclosed liquids. Rene, F., et al, [1993,eng] 48-2344

Vapor transfer

Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611

Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605

CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608

Deaerator use in soil tests. Deng, Y.S., et al, [1993,chi] 48-1458

Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612

End of the ice age. Nisbet, E.G., [1990,eng] 48-1747

Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613

Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606

Identification of turbulence structures above a forest canopy using a wavelet transform. Turner, B.J., et al, [1994,eng] 48-4636

Methane and nitrous oxide flux in a Wyoming subalpine meadow. Mosier, A.R., et al, [1993,eng] 48-2548

Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814

Methane emissions from Canadian peatlands. Toda, H., et al, [1994,eng] 48-4994

Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604

Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875

Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601

Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192

Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603

Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638

Side discharge anti-ice manifold. Miller, S.M., [1993,eng] 48-1654

Spiked soil preparation for organic compound analysis. Hewitt, A.D., [1994,eng] 48-4954

Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] 48-2700

Sublimation in low-temperature dehydration processes. Lombraña, J.I., et al, [1993,eng] 48-1889

Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609

Trans Alaska pipeline reinsulation in Atigun Pass. Mobley, K.F., et al, [1993,eng] 48-438

Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] 48-4374

Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610

Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607

Variations

Mt. Fleming Upper Valley Drift: evidence for Neogene glacial history of Antarctica. Stroeven, A.P., et al, [1992,eng] 48-2624

Physical properties and structure of a single ice floe. Danielson, A., et al, [1992,eng] 48-3769

Sea-ice investigations on *Nathaniel B. Palmer:* Cruise 92-2. Ackley, S.F., et al, [1992,eng] 48-3770

See [also]: Diurnal variations; Glacier oscillation; Periodic variations; Seasonal variations; Temperature variations

Vegetation

Terrain characterization for trafficability. Shoop, S.A., [1993,eng] 48-718

See [also]: Grasses; Lichens; Mosses; Plants (botany); Protective vegetation; Revegetation; Trees (plants)

Vegetation factors

Alkaline soil chemistry on the Tanana River floodplain. Marion, G.M., et al, [1993,eng] 48-641

Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] 48-285

Canadian Land Surface Scheme for GCMS, pt.2. Verseghy, D.L., et al, [1993,eng] 48-1380

Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943

Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376

Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613

Floodplain surface soil chemistry along the Tanana River. Dyrness, C.T., et al, [1993,eng] 48-647

Global warming considerations in northern boreal forest ecosystems. Slaughter, C.W., [1992,eng] 48-2036

Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650

Palsa microclimatology in Canadian mountain soils. Kershaw, G.P., et al, [1993,eng] 48-412

Pine growth on a vegetation-controlled frost-prone site. LePage, P., et al, [1994,eng] 48-4809

Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614

Snow depth in forests with various openness grades of canopies. Goto, Y., et al, [1993,jpn] 48-3180

Snowpack stratigraphy evolution at forested and open sites. Albert, M.R., et al, [1993,eng] 48-2946

Soil runoff sediment response to freeze thaw cycles. Burney, J.R., et al, [1993,eng] 48-1370

Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525

Vegetation patterns

Air-pollution-mediated changes in alpine ecosystems and ecotones. Rusek, J., [1993,eng] 48-1609

Alpine seed bank size estimations in subarctic ecosystems. Diemer, M., et al, [1993,eng] 48-937

Alpine vegetation of New Zealand: an ecological overview. Wardle, P., [1986,eng] 48-205

Anthropogenic transformation of the vegetation cover of Western Siberia. Lashchinskiĭ, N.N., ed, et al, [1992,rus] 48-4151

Attempt at spectral detection of phenological changes of boreal vegetation. Shibayama, M., et al, [1994,eng] 48-4998

Barnes Ice Cap fluctuations, Baffin I., Canada. Jacobs, J.D., et al, [1993,eng] 48-2419

Chronological study of the taxonomic structure of *Poa* of the section *Stenopoa* (Poaceae) in Siberia. Olonova, M.V., [1993,rus] 48-5277

Classification of alpine vegetation using Landsat data. Franklin, S.E., et al, [1994,eng] 48-4011

Climate and vegetation in northeastern Alaska 18,000 yr B.P.-present. Edwards, M.E., et al, [1994,eng] 48-5059

Data-based re-appraisal of the terrestrial carbon budget at the last glacial maximum. Van Campo, E., et al, [1993,eng] 48-3560

Effect of snow cover and air temperature on forest distribution. Kato, C., et al, [1990,jpn] 48-3426

Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090

Effects of soil salinity on forest success on a subarctic floodplain. Van Cleve, K., et al, [1993,eng] 48-637

Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] 48-5115

Floodplain ecosystems of the Tanana River, AK. Viereck, L.A., et al, [1993,eng] 48-638

Floristic findings in the Aldan highlands and Tokinsky Stanovik range. Volotovskiĭ, K.A., et al, [1993,rus] 48-5285

Floristic findings in the Baikal region. Zarubin, A.M., et al, [1993,rus] 48-5276

Forest ecosystem regeneration at a Peruvian timberline. Young, K.R., [1993,eng] 48-935

Forest fire degradation of plant succession and permafrost. Zhang, Q.B., et al, [1993,eng] 48-498

Forest-tundra transition zone in northeastern Canada. Sirois, L., et al, [1994,eng] 48-5125

Geographical analysis of flora of the Cherek Bezengiyskiy River basin (Central Caucasus). Portenier, N.N., [1993,rus] 48-5280

Geographical analysis of the flora in the Cherek Bezengiiskii River basin (Central Caucasus). Part I. Portenier, N.N., [1993,rus] 48-4275

Global vegetation model based on the climatological approach of Budyko. Tchebakova, N.M., et al, [1993,eng] 48-1280

Growth of black spruce at its northern range limit in arctic Quebec, Canada. Payette, S., et al, [1994,eng] 48-4377

Growth responses of four sub-arctic dwarf shrubs to simulated environmental change. Parsons, A.N., et al, [1994,eng] 48-5019

Holocene dynamics of jack pine at its northern range limit in Quebec. Desponts, M., et al, [1993,eng] 48-2765

Holocene vegetation history in a Québec forest. Gajewski, K., et al, [1993,eng] 48-2076

Influence of snow avalanches on mountain vegetation patterns. Patten, R.S., et al, [1994,eng] 48-3507

LANDSAT detection of northern Finland vegetation change. Awaya, Y., et al, [1994,eng] 48-4997

Landscape mapping in the Mackenzie River Valley. Crampton, C.B., [1975,eng] 48-3195

Larger fungi associated with *Betula pubescens* in Greenland. Elborne, S.A., et al, [1990,eng] 48-84

Late glacial climatic change in British Columbia. Mathewes, R.W., [1985,eng] 48-2726

Late Quaternary history of tundra vegetation in northwestern Alaska. Anderson, P.M., et al, [1994,eng] 48-5065

Late-glacial climatic change in the Maritime Provinces. Mott, R.J., [1985,eng] 48-2725

Latitudinal differentiation of vegetation along the Russo-Finnish border. IUrkovskaia, T.K., et al, [1993,rus] 48-5287

Leafy mosses in the middle current of the Sebayakha River (Central Yamal). Cherniad'eva, I.V., [1993,rus] 48-5283

Lichenicolous fungi of Greenland. Alstrup, V., et al, [1990,eng] 48-67

Lichens collected at the bird colony in the northwestern part of Bolshevik Island (Severnaya Zemlya). Kotlov, IU.V., [1993,rus] 48-5273

Lichens of the genera *Cladina* and *Cladonia* from southern Altai (eastern Kazakhstan). Myrzakulova, Z.S., [1993,rus] 48-5279

Littoral phytocoenoses of the southwestern coast of the Okhotsk Sea and the Shantar Islands. Perestenko, L.P., [1993,rus] 48-5274
Mapping and monitoring of woodlands and scrub vegetation in Qingua-dalen, South Greenland. Feilberg, J., et al, [1990,eng] 48-81
Microzonal sequence of tundra plant communities on a northern mountain slope as a reflection of the winter snow gradient. IUrtsev, B.A., et al, [1993,rus] 48-1629
New taxa of the genus *Potentilla* (Rosaceae) from arctic Alaska. IUrtsev, B.A., [1993,rus] 48-5284
Nutrient ecology, vegetation and biomass of two South-Greenlandic birch forest sites. Eurola, S., et al, [1990,eng] 48-83
On the origin and evolution of Australasian alpine cushion plants. Gibson, N., et al, [1986,eng] 48-206
Oxytropis tananensis—new species of the section *Baicalia* (Fabaceae) from the interior of eastern Alaska. IUrtsev, B.A., [1993,rus] 48-5278
Palaeobotanical study of paludifying pine forest on the island of Hailuoto, northern Finland. Hulme, P.D., [1994,eng] 48-4279
Palaeoecology of a late Allerød peat bed at Godøy, western Norway. Birks, H.H., et al, [1993,eng] 48-3798
Paleobotanical variations in response to alpine climate change. David, F., [1993,eng] 48-4283
Patterns of plant distribution within two polar desert landscapes. Bliss, L.C., et al, [1994,eng] 48-3507
Permafrost distribution in Chinese forests. Liu, Q.R., et al, [1993,eng] 48-425
Permafrost vegetation in a Chinese forest. Dai, C.T., et al, [1993,eng] 48-370
Phytocoenotic structure of *Larix* open woods in the extreme northern forest stand "Ary-Mas". Norin, B.N., [1993,rus] 48-5286
Phytogeography of vascular plants of northern Greenland. Bay, C., [1992,eng] 48-66
Plant development on a subarctic coast. Grégoire, M., et al, [1993,eng] 48-1383
Plant ecological relationships in the high arctic. Kojima, S., [1994,eng] 48-4996
Postglacial development of vegetation in Newfoundland. Macpherson, J.B., [1985,eng] 48-2724
Remote sensing of alpine vegetation in Yukon Territory. Wilson, B.A., et al, [1992,eng] 48-1761
Response of arctic tundra to inundation from reservoir flooding. Thorhallsdottir, T.E., [1993,eng] 48-941
Role of lichens in vegetation cover formation in the Upper Kolyma highlands. Kotlov, IU.V., [1993,rus] 48-5282
Role of snow cover in the differentiation of vegetation in southern Wrangel' Island: the cenotic level. Kholod, S.S., [1993,rus] 48-1630
Satellite detection of the boreal forest-tundra transition. Awaya, Y., et al, [1993,eng] 48-1697
Seed survival in a high alpine block field. Moen, J., [1993,eng] 48-938
Serpentinite, harzburgite, and vegetation on subantarctic Macquarie Island. Adamson, D.A., et al, [1993,eng] 48-940
Shrub growth responses in a clear cut subarctic landscape. De Grosbois, T., et al, [1993,eng] 48-2660
Snow cover effect on evergreen shrub physiology. Kume, A., et al, [1993,eng] 48-4482
Spectral, spatial and temporal characteristics of arctic tundra reflectance. Stow, D.A., et al, [1993,eng] 48-934
Spotty distribution of alpine plants in the western Caucasus. Akatov, V.V., [1993,rus] 48-5281
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting. Kholod, S.S., [1993,rus] 48-4226
Surface energy balance over northern wetlands, pt.I. Guo, Y., et al, [1994,eng] 48-4615
Taphonomy of plant remains on floodplains of tundra rivers, present and Pleistocene. West, R.G., et al, [1993,eng] 48-4287
Taxonomy of the *Eriophorum* (Cyperaceae) species related to *Eriophorum russeolum*. Novoselova, M.S., et al, [1993,rus] 48-5275
Temperature effects on distribution of introduced plants. Beerling, D.J., [1993,eng] 48-1269
Tundra seedbank ecology in a subalpine environment. Ingersoll, C.A., et al, [1993,eng] 48-969
Vascular plant flora of Rankin Inlet, District of Keewatin, Northwest Territories. Korol, J.B., [1992,eng] 48-3609
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
Vivipary in *Polygonum viviparum:* an adaptation to cold climate?. Bauert, M.R., [1993,eng] 48-5057

Vehicle wheels

Adaptor disk for attaching an anti-skid device to a wheel disk or rim. Preusker, R., et al, [1990,eng] 48-2201
Adjustable wheel for snow plow. Street, W.L., [1990,eng] 48-2174
Anti-skid device for tired vehicle wheels. Oda, Y., [1990,eng] 48-2256
Anti-skid device for vehicle wheels with automatic positioning by securing members. Metraux, M., [1991,eng] 48-1365
Antiskid device for motor vehicles. Zampieri, P., [1990,eng] 48-2184
Antiskid device having rotatable crossbands. Koshi, M., [1991,eng] 48-1732
Device for positioning and attaching an auxiliary snow-chain device for motor vehicles. Tschannen, H., [1990,eng] 48-2198
Easily activated and deactivated traction device for vehicles. Vilhauer, J.E., Jr., [1990,eng] 48-2176
Snow chain having a network of diamond shaped openings. Lew, H.S., [1990,eng] 48-2190
Three approaches to winter traction testing. Shoop, S.A., [1993,eng] 48-3489

Vehicles

Braking traction on sanded ice. Borland, S.L., et al, [1992,eng] 48-2220
Electrically heatable windshield. Osada, K., et al, [1991,eng] 48-1733
Experimental method for vehicle mobility research on freezing/thawing soil. Shoop, S.A., et al, [1993,eng] 48-1163
Heated windshield wiper blade and holder. Meltzer, E.A., et al, [1989,eng] 48-1873
Lake County modifies deicing spreaders.[1994,eng] 48-4248
Melting windshield ice.[1994,eng] 48-3616
Mobility research: where we have been and where we are going. Liston, R.A., [1993,eng] 48-1161
Predicting vehicle mobility on snow-covered slopes. Richmond, P.W., [1993,eng] 48-1162
Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Tandem rotary snowplow. Takaoka City Road Maintenance Office, [1986,jpn] 48-38
Terrain characterization for trafficability. Shoop, S.A., [1993,eng] 48-718
Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1993,eng] 48-3824
Wheeled vehicle mobility evaluation in deep snowpack. Xu, D.M., et al, [1993,eng] 48-1167

See [also]: Air cushion vehicles; Aircraft; Airplanes; All terrain vehicles; Amphibious vehicles; Helicopters; Motor vehicles; Railroad cars; Ships; Snow vehicles; Spacecraft; Submarines; Tanker aircraft; Tanker ships; Tracked vehicles; Tractors

Velocity

Experimental study of warm-air defrosting of heat-pump evaporators. Ameen, F.R., et al, [1993,eng] 48-3198
Flow, flow transition and runout distances of flowing avalanches. Salm, B., [1993,eng] 48-2857
Glaciological measurements on the south Ronne Ice Shelf. Morris, E.M., et al, [1991,eng] 48-8
Kinematic model of river ice motion during dynamic breakup. Ferrick, M.G., et al, [1993,eng] 48-1621
Mechanics of a turning snow ski. Hirano, Y., et al, [1994,eng] 48-4716
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376

See [also]: Seismic velocity; Wind velocity

Velocity measurement

1987-88 surge of West Fork Glacier, Susitna Basin, Alaska, U.S.A. Harrison, W.D., et al, [1994,eng] 48-5161
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Antarctic glacier-tongue velocities from Landsat images: first results. Lucchitta, B.K., et al, [1993,eng] 48-1349
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] 48-4056
Complex ice stream flow revealed by sequential satellite imagery. Scambos, T.A., et al, [1993,eng] 48-1319
Computer database for falling snowflakes. Muramoto, K., et al, [1993,eng] 48-2820
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Establishment of a digital database for the study of glacial velocity in Antarctica. Steiner, D.R., et al, [1990,eng] 48-2428
Glaciological observations on Antarctic Peninsula. Raymond, C.F., et al, [1992,eng] 48-2618
Greenland Sea hydrography—winter 1988-89. Schott, F., et al, [1993,eng] 48-224
Hail growth analysis using dual-Doppler and multiparameter radars. Conway, J.W., et al, [1993,eng] 48-2466
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] 48-2400
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
New and improved determinations of velocity of Ice Streams B and C, West Antarctica. Whillans, I.M., et al, [1993,eng] 48-3574
Observations of the dynamic structure of snow avalanches. Nishimura, K., et al, [1993,eng] 48-2873
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
Performance of ice-navigating ships in the northern Baltic in winter 1993. Lehtinen, P., [1993,eng] 48-2078
Relief and decay of flow stripes on Byrd Glacier, Antarctica. Casassa, G., et al, [1993,eng] 48-1332
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Short-period observations of speed, strain and seismicity on Ice Stream B, Antarctica. Harrison, W.D., et al, [1993,eng] 48-3572
Sound and speed of ice-wedge cracking, arctic Canada. Mackay, J.R., [1993,eng] 48-1222
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Study of a CASP storm: analysis of radar data. Zawadzki, I., et al, [1993,eng] 48-2345
Thwaites Glacier tongue variations from photographic surveys. Ferrigno, J.G., et al, [1993,eng] 48-1329
Two-layer model of ice-covered channel flow. Urroz, G.E., et al, [1994,eng] 48-4247
Velocity pattern in a transect across Ice Stream B, Antarctica. Whillans, I.M., et al, [1993,eng] 48-3582

Venezuela

—Andes

Talus movement in the high equatorial Andes: a synthesis of ten years of data. Pérez, F.L., [1993,eng] 48-5048

Ventilation

Advanced HVAC-systems in energy-efficient experimental buildings. Laine, J., et al, [1994,eng] 48-3869
Aerodynamic protection of premises against cold through apertures. Shilkrot, E.O., et al, [1994,eng] 48-3865
Air-tightness of private houses—typical problems and case studies. Kauppinen, T., et al, [1994,eng] 48-3876
Climate warming and the heat conditions of bases in northern cities. Grebenets, V.I., et al, [1994,eng] 48-4169
Cold climate HVAC '94. International Conference on HVAC in Cold Climate, Rovaniemi, Finland, Mar. 15-18, 1994, [1994,eng] 48-3841
Computer simulation of underground cable thermal environment. Chow, W.K., et al, [1993,eng] 48-2050
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Construction thermodynamics (thermodynamic principles of heating, ventilation and air conditioning). Bogoslovskii, V.N., [1982,rus] 48-1287
Energy efficiency in heating and ventilating. Naumov, A.L., et al, [1994,eng] 48-3863
General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008
Heat losses from air ducts and their effect on the performance of heat recovery ventilators. Fahlén, P., [1994,eng] 48-3851
Heat recovery ventilator operating under frost conditions. Mercadier, Y., et al, [1993,eng] 48-870
Heating and ventilation systems for industrial buildings. Finkel'shtein, S.M., [1994,eng] 48-3861
Heating energy reduction of buildings in cold climates. Saastamoinen, J.J., [1994,eng] 48-3850
HVAC design considerations for cold climate. Armstrong, R.S., [1993,eng] 48-2213
Indoor climate and design criteria. Grimsrud, D.T., [1994,eng] 48-3842
Knowledge-based system for condensation diagnostics in houses. Matsumoto, H., et al, [1994,eng] 48-3848
Lessons from Indoor Air '93 for cold climate. Seppänen, O., et al, [1994,eng] 48-3843
Moisture protection of the industrial building enclosures in a cold climate by using dry jets. IUr'ev, O.F., [1994,eng] 48-3866
Natural air exchange in buildings exposed to the northern conditions. Gusev, A.A., et al, [1994,eng] 48-3875
On the influence of gravitational forces on space building air circulation schemes. Grimitlin, M.I., [1994,eng] 48-3859
Principles and application of mechanical ductless ventilation systems. Maevskii, I., [1994,eng] 48-3862
Reduction of the energy consumption in air curtains. Nikulin, M.V., et al, [1994,eng] 48-3864
Simplified ventilation system Thermonet. Hyvärinen, K., [1994,eng] 48-3872
Solar house IEA5. The Finnish IEA Task 13 demonstration house. Nieminen, J., et al, [1994,eng] 48-3870
Some numerical experiments on firn ventilation with heat transfer. Albert, M.R., [1993,eng] 48-2845
Special demands for ventilation system and product standards in cold climates. Railio, J., [1994,eng] 48-3858
Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] 48-2700
Ventilating attics to minimize icings at eaves. Tobiasson, W., et al, [1994,eng] 48-3860

Vertical sections

See [also]: Profiles

Very low frequencies

On acoustic transmission in ocean-surface waveguides. Buckingham, M.J., [1991,eng] 48-4726

Vessels

See [also]: Ships

Viability

Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cryoprotection of yeast by alcohols during rapid freezing. Lewis, J.G., et al, [1994,eng] 48-5055
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Rooting variations in subarctic reforestation tree species. Houle, G., et al, [1993,eng] 48-4811

See [also]: Cold tolerance; Cold weather survival; Survival

Vibration
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] **48-1827**
Dynamic instability of seasonally thawing silty soils. Voznesenskii, E.A., et al, [1994,eng] **48-4840**
Dynamic strain characteristics of saturated frozen silt. He, P., et al, [1994,eng] **48-3394**
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] **48-832**
Electro-repulsive separation system for deicing. Adams, L.J., et al, [1989,eng] **48-1875**
Glacier-generated ground motions at Bomi, southeastern Tibet. Akamatsu, J., et al, [1993,eng] **48-2754**
Lattice dynamics of clathrate hydrates. Tse, J.S., et al, [1993,eng] **48-2350**
Model for dynamic ice interactions with MOLIKPAQ. Brown, T.G., et al, [1992,eng] **48-1540**
Modelling of ice induced vibration of slender offshore structures. Riska, K., et al, [1993,eng] **48-2129**
Monitoring vibrations in a nuclear icebreaker. Lattka, A.L., et al, [1990,ger] **48-3929**
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] **48-1373**
Spectra of isotopic ice mixtures. Wojcik, M.J., et al, [1993,eng] **48-213**
Stretching frequencies in high pressure ice. Knuts, S., et al, [1993,eng] **48-214**
Studies on nonlinear dynamics of driven vibrating systems with dissipation. Räty, R.K., [1992,eng] **48-1235**
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] **48-2027**

Viscoelasticity
Asphalt viscoelasticity under high and low temperatures. Hase, M., [1993,ger] **48-607**
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] **48-1375**
Climatic implications of Pleistocene ice volume fluctuations. DeBlonde, G., et al, [1991,eng] **48-5319**
Martian regolith ground ice inferred from impact craters. Jankowski, D.G., et al, [1993,eng] **48-2996**
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] **48-2399**
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] **48-4838**
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] **48-2809**
Study of practicability about photoviscoelastic simulation test of frozen soil's creep. Wang, T.D. et al, [1993,chi] **48-1444**
Surface wave diffraction by a crack in sheet ice. Marchenko, A.V., [1993,eng] **48-1740**

Viscosity
Aqueous ethanol as an ice-drilling fluid. Gosink, T.A., et al, [1993,eng] **48-3598**
Barents Sea tidal current profile calculation. Nøst, E., [1994,eng] **48-4056**
Behavior of oil spills in the presence of ice. Singsaas, I., et al, [1994,eng] **48-4921**
Behaviour of oil in freezing situations. Wilson, D.G., et al, [1986,eng] **48-4170**
Dynamic activity in medium-scale ice indentation tests. Kennedy, K.P., et al, [1994,eng] **48-3829**
Estimates of the viscosity of nonfreezing layers of water. Bardasov, S.A., et al, [1994,eng] **48-3834**
Formulating automatic transmission fluids with improved low temperature fluidity. Watts, R.F., et al, [1991,eng] **48-3931**
Glass transition in the freezing process. Reid, D.S., et al, [1994,eng] **48-4658**
Glassy state formation of aqueous solutions. Prével, B., et al, [1994,eng] **48-5384**
Mechanism of action of pour-point depressants. Fremel', T.V., et al, [1994,eng] **48-4167**
Micro-earthquakes beneath West Antarctica ice streams. Anandakrishnan, S., et al, [1993,eng] **48-3571**
Oil spill behavior in ice-infested waters. El-Tahan, H., et al, [1994,eng] **48-4920**
On the non-freezing water interlayers between ice and a silica surface. Churaev, N.V., et al, [1993,eng] **48-2429**
Production of pour-point depressants for diesel and furnace fuels. Chesnovitskii, K.G., et al, [1993,eng] **48-981**
Rock ice viscosity and rheological parameters. Lliboutry, L.A., [1993,eng] **48-68**
Scanning analysis of low-temperature lubricant gelation. Selby, T.W., [1991,eng] **48-3932**
Viscosity measurements on very wet soils. Shoop, S.A., [1993,eng] **48-1174**

Viscous flow
Generation of melt during crushing experiments on freshwater ice. Gagnon, R.E., [1994,eng] **48-5114**
Mathematical analysis of granular flow avalanches. Hutter, K., et al, [1993,eng] **48-2399**

Visibility
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] **48-4819**
Aerosol scavenging by falling snow. Cragin, J.H., et al, [1993,eng] **48-2958**
Investigative report on line of sight in the effectiveness of snow advisory display signs. Kaku, T., [1991,jpn] **48-4240**
Millimeter wave system for landing aircraft in snowstorm. Huguenin, G.R., [1990,eng] **48-2163**
Numerical simulations of the effects of gravity waves on noctilucent clouds. Jensen, E.J., et al, [1994,eng] **48-3144**
Poor visibility caused by snow whirl behind vehicles. Fukuzawa, Y., [1993,jpn] **48-3171**
Studies on the driver's visual point. Chapter 8. Visual behavior of drivers in blowing snow. Hagiwara, T., [1991,jpn] **48-4238**
Study on hindrance to visibility and to the driver's visual point by blowing snow. Kaku, T., [1992,jpn] **48-4239**
Visibility reduction by snow in the wake of highway vehicles. Fukuzawa, Y., et al, [1993,jpn] **48-1968**
Visibility reduction caused by snow and a driver's eye movement. Ishimoto, K., et al, [1993,jpn] **48-1967**
Visibility reduction caused by snow in the wake of vehicles on highways. Ishimoto, K., et al, [1993,eng] **48-1201**
Visual range in airborne snow particles. Takeuchi, M., [1991,jpn] **48-3423**
See [also]: Transparence; Turbidity

Visual range theory
See [also]: Visibility

Vitreous ice
Cryogenic suspension method. Rosenberg, L., et al, [1992,eng] **48-2236**
See [also]: Amorphous ice

Volcanic ash
Ablation thresholds and ash thickness. Hunt, J.B., [1993,eng] **48-3599**
Aerosol composition of the Scandinavian arctic stratosphere. Aimedieu, P., et al, [1994,eng] **48-5451**
AGASP II arctic haze aerosol characteristics—influence of volcanic eruption emissions. Chuan, R.L., [1993,eng] **48-3902**
Air mass identification in relation to pollution episodes in Italian Alps. Anfossi, D., et al, [1991,eng] **48-4763**
Ancient climate from deuterium content of water in volcanic glass. Friedman, I., et al, [1993,eng] **48-1500**
Antarctic polar stratospheric cloud changes due to Pinatubo aerosols. Deshler, T., et al, [1994,eng] **48-4014**
Arctic stratospheric aerosols following Mt. Pinatubo eruptions. Stone, R.S., et al, [1993,eng] **48-2327**
Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Larsen, N., et al, [1994,eng] **48-5466**
Effect of volcanic aerosols on Finnish ozone measurements. Dahlback, A., et al, [1994,eng] **48-5487**
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] **48-5292**
Evidence from Hudson Bay region of severe cold in the summer of 1816. Catchpole, A.J.W., [1985,eng] **48-2722**
Glaciochemical contribution to the study of the atmospheric impact of volcanic eruptions. Laj, P., et al, [1993,fre] **48-4485**
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] **48-3232**
Heterogeneous chemistry of polar stratospheric clouds and volcanic aerosols. Turco, R.P., et al, [1993,eng] **48-3730**
International workshop on stratospheric aerosols: measurements, properties, and effects. Pueschel, R.F., ed, [1991,eng] **48-3680**
Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Neuber, R., et al, [1994,eng] **48-5461**
Lidar measurements of Pinatubo aerosols in the arctic stratosphere. Flesia, C., et al, [1994,eng] **48-5498**
Lidar observation of cirrus at the base of the stratosphere. Del Guasta, M., et al, [1994,eng] **48-5474**
Lidar observation of polar stratospheric clouds. Godin, S., et al, [1994,eng] **48-5473**
Lidar observations of polar stratospheric clouds at Andøya, Norway, in January 1992. Schäfer, H.J., et al, [1994,eng] **48-5467**
Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Di Girolamo, P., et al, [1994,eng] **48-5464**
Old Crow tephra in dating of the Wisconsinan climate history. Matthews, J.V., Jr., et al, [1985,eng] **48-2728**
Origins and variations of fluoride in Greenland precipitation. De Angelis, M., et al, [1994,eng] **48-4598**
Ozone profiles at McMurdo Station, Antarctica during the austral spring of 1992. Johnson, B.J., et al, [1994,eng] **48-4013**
Perturbation of stratospheric nitrogen dioxide by volcanic aerosol in the Arctic. Lateltin, E., et al, [1994,eng] **48-5490**
Polar stratospheric cloud spectrometry in the Arctic. Sarkissian, A., et al, [1994,eng] **48-5469**
Report of a 1990 polar stratospheric aerosol cloud. Yue, G.K., et al, [1994,eng] **48-4442**
Solar radiation variability over Iceland. Bais, A.F., et al, [1994,eng] **48-5488**
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] **48-5465**
Spectroscopy at McMurdo Station, pt.10. Solomon, S., et al, [1994,eng] **48-3148**
Stabilization and frost heave prevention of volcanic soils. Ishida, H., [1993,jpn] **48-1976**
Stratospheric aerosol content above Spitsbergen during winter 1991/92. Beyerle, G., et al, [1994,eng] **48-5463**
Stratospheric aerosol increase after Mt. Pinatubo eruption. Iwasaka, Y., et al, [1993,eng] **48-1868**
Stratospheric aerosol lidar measurements over Finland. Stein, B., et al, [1994,eng] **48-5468**
Stratospheric volcanic aerosols and PSCs over Spitsbergen. Beyerle, G., [1994,eng] **48-3925**
Total nitrogen dioxide at the arctic polar circle since 1990. Goutail, F., et al, [1994,eng] **48-5482**
Two dimensional stratospheric aerosol distributions during EASOE. Wirth, M., et al, [1994,eng] **48-5462**
Verification of extrusive volcanism in an ice core from King George I. Dai, F.N., et al, [1993,chi] **48-1944**
Volcanic ash aerosol stimulation of stratospheric nucleation. Rizi, V., et al, [1994,eng] **48-5496**
Volcanic ash aerosols measured over Kiruna, Sweden. Deshler, T., [1994,eng] **48-5470**
Volcanic ash strata related to Colville Valley deglaciation. Carrara, P.E., et al, [1992,eng] **48-3236**
Volcanic winter and accelerated glaciation following the Toba super-eruption. Rampino, M.R., et al, [1992,eng] **48-1507**

Volcanoes
Ammonia-water volcanism on icy satellites: phase relations at 1 atmosphere. Kargel, J.S., [1992,eng] **48-993**
Brightness temperatures of the arctic winter troposphere. Valero, F.P.J., et al, [1993,eng] **48-2590**
Eruptions in Grímsvötn, Vatnajökull, Iceland, 1934-1991. Gudmundsson, M.T., et al, [1991,eng] **48-5292**
Geology of Mount Murphy volcano. LeMasurier, W.E., et al, [1994,eng] **48-3299**
Glaciers of Jan Mayen, Norway. Orheim, O., [1993,eng] **48-4033**
Hazard assessment of slopes on an ice-capped Mexican volcano. Siebe, C., et al, [1993,eng] **48-3232**
Mexican volcanic lahar hazard assessment. Carrasco-Núñez, G., et al, [1993,eng] **48-3233**
Most recent fall deposits of Ksudach Volcano, Kamchatka, Russia. Bursik, M., et al, [1993,eng] **48-4217**
Permafrost in the north of Korean peninsula. An, V., [1993,eng] **48-511**
Possible effect of subglacial volcanism on changes in the west antarctic ice sheet. Behrendt, J.C., [1992,eng] **48-2619**
Post-Pinatubo sunphotometer measurements in AASE II. Russell, P.B., et al, [1993,eng] **48-2589**
Potassium-argon dates and pre-Würm glaciations of Mount Giluwe volcano, Papua New Guinea. Löffler, E., [1977,eng] **48-3310**
Preliminary note on the glaciological phenomenon of the Cave of Frost (Mt. Aetna). Marino, A., [1993,ita] **48-4105**
Thermal output of a subglacial Icelandic caldera. Björnsson, H., et al, [1993,eng] **48-1363**
Volcanic record in a Greenland ice core. Zielinski, G.A., et al, [1994,eng] **48-3941**
Volcano aerosols in the Greenland atmosphere. Dessler, A.E., et al, [1993,eng] **48-2581**

Volume
See [also]: Ice volume

Vortex flows
Vortex flows near the sea ice edge. Marchenko, A.V., et al, [1993,eng] **48-4216**

Walls
Analysis of temperature effects on the flexural behavior of frozen soil. Soo, S., et al, [1993,eng] **48-459**
Development and testing of a composite ice-resisting wall. Zimmerman, T.J.E., [1993,eng] **48-4129**
Ecological and economical thermo-blocks for external walls. Lapsa, V.A., [1994,eng] **48-3877**
Experimental research on deformation in model of an artificially frozen wall. Wu, Z.W., et al, [1993,eng] **48-486**
Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] **48-1416**
Frost heave in retaining walls in seasonally frozen ground. Sui, T.L., et al, [1993,eng] **48-460**
Mathematical analysis of frozen shaft wall deformation. Wang, J.P., et al, [1993,eng] **48-478**
Moisture deposition from air flow through wall cavities. Forest, T.W., et al, [1993,eng] **48-871**
Relation between snow and damage on external wall of reinforced concrete construction. Tashiro, K., et al, [1993,jpn] **48-1983**
Steel/concrete composite walls for offshore ice protection. Nuijima, K., et al, [1986,eng] **48-5312**
Wooden bracing and wall length for a snow-proof house. Uchiyama, K., et al, [1993,jpn] **48-1998**

Warning systems
Danish operational slippery-road warning system and prospects for the future. Voldborg, H., [1993,eng] **48-1205**
Fence-mounted intrusion detection systems. Peck, L., [1993,eng] **48-1093**
Iceload investigations on insulators and aerial warning balls for overhead lines. Greisert, K., et al, [1993,eng] **48-833**
Impact of different backgrounds on thermal infrared IDS performance. Lacombe, J., [1993,eng] **48-1094**
International Ice Patrol '94. Haines, R., [1994,eng] **48-2760**
Investigation of the feasibility of operating large tethered aerostats in the Arctic. Carten, A.S., Jr., et al, [1984,eng] **48-4400**
Investigative report on line of sight in the effectiveness of snow advisory display signs. Kaku, T., [1991,jpn] **48-4240**
Model project for establishing an avalanche warning and evacuation system. Terada, H., et al, [1993,eng] **48-2861**
Results of a field test of six different ice warning systems. Scharsching, H., [1993,eng] **48-1204**
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] **48-2091**
Roadside message system for icing conditions. Nishihara, H., et al, [1987,jpn] **48-279**

System of radioecological monitoring for sunken nuclear submarine. Lisovskii, I.V., [1993,eng] 48-4515
Use and calibration of Rosemount ice detectors for meteorological research. Claffey, K.J., et al, [1993,eng] 48-825
Warning system for snow accretion on power lines. Wakamatsu, K., et al, [1993,eng] 48-838
Wind and ice load monitoring on a test line. Haldar, A.K., et al, [1993,eng] 48-839
See [also]: Monitors

Waste disposal
Application of in-situ surface recycling methods in cold areas. Kikukawa, S., et al, [1993,eng] 48-5072
Baling facility for municipal solid waste for the city of Yellowknife. Levert, D., et al, [1994,eng] 48-3357
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Determination of chlorinated organic compounds in soils. Hewitt, A.D., et al, [1993,eng] 48-798
Domestic sludge, a resource for Alaska. Johnson, R.A., [1980,eng] 48-4144
Dumping formation method using alternating layers of rock and ice. Lelikov, V.P., et al, [1992,eng] 48-5534
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils. Bech, C., et al, [1993,eng] 48-3720
Environmental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520
Future glaciation and ground water flow at a nuclear waste site. Lindbom, B., et al, [1991,eng] 48-4762
Hazardous waste strategy for communities in Canada's Northwest Territories. Kent, R.J., et al, [1994,eng] 48-3356
Heavy weight deflectometer results from an unsurfaced road containing rubber layers. Eaton, R.A., et al, [1994,eng] 48-4914
Impact of a repository on permafrost development during glaciation advance. Vallander, P., et al, [1991,eng] 48-4761
Liquid waste management CFS Alert. Héroux, J.A., et al, [1994,eng] 48-3380
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
North Slope Borough's experiences with incineration. Thomas, J.E., et al, [1989,eng] 48-4136
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-10[illegible]
Performance evaluation of primary sewage lagoon in Iqaluit, N.W.T. Johnson, K., et al, [1994,eng] 48-3381
Performance of in-situ hot mix recycling as a maintenance technique in Ontario. Marks, P., et al, [1993,eng] 48-5073
Recycling systems for waste materials of reconstruction of streets in Sapporo City. Kamiya, M., et al, [1993,eng] 48-5076
Removal and disposal of radioactive waste from contaminated agricultural areas after a severe nuclear accident. Salbu, B., et al, [1993,eng] 48-4566
Selection of sanitation alternatives: a strategy for remote Alaskan communities. Olofsson, J.A., et al, [1994,eng] 48-3383
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors. Olofsson, J.A., et al, [1994,eng] 48-3375
Stabilized recycled plastics as high performance asphalt binder modifiers. Liang, Z.Z., et al, [1993,eng] 48-5075
Study on the application of surface recycling methods. Nakanishi, T., et al, [1993,eng] 48-5074
Terrestrial storage of CO2-dry ice. Seifritz, W., [1993,eng] 48-606
Tire chips as subgrade insulation—field trial. Humphrey, D.N., et al, [1993,eng] 48-1840
Transfer of reprocessing wastes from NW Europe to the Arctic. Kershaw, P.J., et al, [1993,eng] 48-4521
Valdez initiates sludge disposal operations. Van Hemert, W., et al, [1993,eng] 48-1886
See [also]: Sewage disposal

Waste heat recovery
See [also]: Heat recovery

Waste treatment
Accumulation and use of wastes as an integral part of the use of natural resources (Eastern Siberia). Zabortseva, T.I., [1989,rus] 48-905
Applying field-expedient bioreactors and landfarming in Alaskan climates. Reynolds, C.M., et al, [1994,eng] 48-4004
Cold regions engineering: "A global perspective". International Cold Regions Engineering Specialty Conference, 7th, Edmonton, Alberta, Mar. 7-9, 1994, [1994,eng] 48-3347
Compacting and freeze concentration of radioactive wastes. Husseiny, A.A., [1991,eng] 48-2229
Domestic sludge, a resource for Alaska. Johnson, R.A., [1980,eng] 48-4144
Ecological and economical thermo-blocks for external walls. Lapsa, V.A., [1994,eng] 48-3877
Enhanced biological degradation of crude oil in a Spitsbergen tundra site. Sveum, P., et al, [1993,eng] 48-3718
Field bioremediation rates in a cold region landfarm: spatial variability. Reynolds, C.M., [1993,eng] 48-297
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Ice pellets and decontamination. Manificat, A., et al, [1993,fre] 48-3280
Insulated compost containers for cold climate. Nilsson, P., et al, [1994,eng] 48-3977
Mechanical freezing of alum sludge. Martel, C.J., [1994,eng] 48-5376
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] 48-3721
Operation and performance of sludge freezing bed at Fort McCoy, Wisconsin. Martel, C.J., [1994,eng] 48-3386
Performance and factors affecting performance of lagoons in cold regions. Prince, D.S., et al, [1994,eng] 48-3382
Process and apparatus for cleaning contaminated soil. Rebhan, D., [1990,eng] 48-2264
Solving sanitation problems in the Alaskan bush: overcoming socio-economic factors. Olofsson, J.A., et al, [1994,eng] 48-3375
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973
See [also]: Sewage treatment

Wastes
Materials for the analysis of volatile organic compounds in soil. Hewitt, A.D., et al, [1994,eng] 48-5414
Pollution of fallen snow in urban areas. Tachibana, H., et al, [1994,eng] 48-3966
See [also]: Radioactive wastes

Water
Investigation of water as a refrigerant. Van Orshoven, D., et al, [1993,eng] 48-2612
Thermodynamic properties of supercooled liquid water. Walrafen, G.E., et al, [1994,eng] 48-5023
Ultrasonic measurement of confined water solidification. McDonough, M.W., et al, [1993,eng] 48-2021
See [also]: Artesian water; Ground water; Heavy water; Lake water; Meltwater; Salt water; Sea water; Soil water; Subpermafrost ground water; Suprapermafrost ground water; Surface waters; Unfrozen water content

Water air interactions
See [also]: Air water interactions

Water balance
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007
Contributions of Val d'Ultimo glaciers to basin water supply. Secchieri, F., et al, [1993,ita] 48-4110
Dwarf shrub photosynthesis in an alpine zone. Nakano, T., et al, [1994,eng] 48-4995
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
Evaluation of evaporation models for alpine tundra, British Columbia, Canada. Saunders, I.R., et al, [1990,eng] 48-1571
Evaporation from alpine tundra in the Canadian Cordillera. Bailey, W.G., et al, [1990,eng] 48-1570
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376
Hydro-meteorological automatic observation system and research plan. Ishikawa, N., et al, [1992,jpn] 48-3218
Importance of hydrological networks for estimating average flows in alpine regions. Aschwanden, H., [1990,eng] 48-1585
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Lacustrine record of late Pleistocene climatic change in the subtropical Andes. Seltzer, G.O., [1994,eng] 48-4984
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] 48-1913
Partitioning the deposition of winter snowfall as a function of aspect on forested slopes. Troendle, C.A., et al, [1993,eng] 48-2966
Permafrost hydrological processes in Binggou basin of Qilian Mountains. Yang, Z.N., et al, [1993,eng] 48-491
Possible future contributions to sea level change from small glaciers. Kuhn, M., [1993,eng] 48-1563
Precipitation-runoff model in the Langtang Khola basin. Braun, L.N., et al, [1993,eng] 48-278[illegible]
Problems of studying water balance in small high arctic basins. Woo, M.K., [1988,eng] 48-2335
Role of plant tissue water potential in freezing tolerance. Kacperska, A., [1993,eng] 48-1251
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Simulation of snowpack and discharge in an alpine karst basin. Hottelet, C., et al, [1993,eng] 48-2789
Snow and glaciers in water balance and river flow. Gurnell, A.M., [1990,eng] 48-1579
Snow cover effect on arctic lichen physiology. Schipperges, B., [1992,eng] 48-343
Snowmelt flood modelling of a Bulgarian river basin. Sosedko, M.N., et al, [1992,bul] 48-2153
Water as a biogeographical constraint in Antarctica. Kennedy, A.D., [1993,eng] 48-2416
Water balance and glacier mass balance in the Swiss Alps. Aellen, M., et al, [1990,fre] 48-1572
Water balance of a Norwegian glacier, pt.1. Willis, I.C., et al, [1991,eng] 48-3655
Water balance of a Norwegian glacier, pt.2. Willis, I.C., et al, [1991,eng] 48-3656
Water loss from the floor of a subarctic forest. Lafleur, P.M., et al, [1994,eng] 48-4374

Water cement ratio
Durability of high strength concrete: study on frost resistance. Han, C.G., [1993,kor] 48-3996

Water chemistry
Ammonium regeneration in the Scotia-Weddell Confluence area during Spring 1988. Goeyens, L., et al, [1991,eng] 48-3736
Beaufort Sea oceanographic data, Sep. 1989. Macdonald, R.W., et al, [1990,eng] 48-2008
Biogeochemical fluxes in the Glacier Lakes catchments. Reuss, J.O., et al, [1993,eng] 48-4120
Calculation of the vapor-saturated liquidus for the NaCl-CO2-H2O system. Barton, P.B., et al, [1993,eng] 48-1769
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Chemical composition of snow cover on the western Swiss Alps. Parriaux, A., et al, [1990,eng] 48-1594
Chemical fluxes through a boreal forest snowpack during the snowmelt season. Suzuki, K., et al, [1993,eng] 48-1858
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] 48-2863
Composition of melt water from urban snow. A laboratory study. Viklander, M., et al, [1994,eng] 48-3968
Dynamic study of common well screen materials. Hewitt, A.D., [1993,eng] 48-719
Eco-geochemical problems in the cryolithozone (for example, in Yakutia). Makarov, V.N., [1992,rus] 48-4795
Environmental aspects of river ice. Prowse, T.D., ed, et al, [1993,eng] 48-215
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Fiord suspended sediment composition related to glacial runoff. Syvitski, J.P.M., et al, [1992,eng] 48-2006
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Groundwater contributions to the hydrochemistry of an alpine basin. Williams, M.W., et al, [1990,eng] 48-1599
Halogenated hydrocarbons in polar macroalgae. Laturnus, F., [1993,ger] 48-2243
Handbook of experimental data on the solubility of multi-component water-saline systems. Zdanovskii, A.B., et al, [1953,rus] 48-1290
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526
Hydrogeochemistry of snowmelt at Rabbit Ears Pass, Rocky Mountains, Colorado. Peters, N.E., et al, [1993,eng] 48-2962
Hydrograph and chemograph separation of bulk meltwaters draining the upper Arolla Glacier, Valais, Switzerland. Brown, G.H., et al, [1990,eng] 48-1589
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] 48-3766
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
Impact of heterogeneous flow paths on snowmelt runoff chemistry. Marsh, P., et al, [1993,eng] 48-2949
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Investigations in the Lake Untersee and Obersee regions. Simonov, I.M., et al, [1985,ger] 48-5311
Lakes in the western Kunlun Mountain area. Li, S.J., et al, [1993,chi] 48-2095
Leaching of ions from the surface of glaciers in western Svalbard. Goto-Azuma, K., et al, [1993,eng] 48-1859
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Limnological research in Terra Nova Bay area. Guilizzoni, P., et al, [1992,eng] 48-4767
Long-term frozen storage of stream water samples. Avanzino, R.J., et al, [1993,eng] 48-2055
Mathematical modeling of solvent extraction. Leggett, D.C., [1993,eng] 48-1098
McMurdo Ice Shelf meltwater chemistry. De Mora, S.J., et al, [1994,eng] 48-3038
Melt water chemistry and its impact on stream water quality. Jenkins, A., et al, [1993,eng] 48-986
Modeling the isotopic composition of precipitation. Gedzelman, S.D., et al, [1994,eng] 48-4849
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Oxygen-18 and nutrients in the Bransfield Strait. Kang, D.J., et al, [1993,eng] 48-3030
Planktonic primary productivity in an Icelandic lake. Dickman, M., et al, [1993,eng] 48-942
Reactive carbonate in glacial systems. Fairchild, I.J., et al, [1994,eng] 48-5039
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Respiration and biochemical composition of sedimenting organic matter during summer in the Barents Sea. Wassmann, P., et al, [1994,eng] 48-4018
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] 48-5552
Sea water isotopic variations during ice formation. Strain, P.M., et al, [1993,eng] 48-227
Snowmelt and water quality changes in small rivers. Symader, W., et al, [1993,eng] 48-1776

Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210
Solutes and suspended sediments in Ganga meltwaters. Chauhan, D.S., et al, [1993,eng] 48-2802
Sources of organobromines to the arctic temperature. Moore, R., et al, [1993,eng] 48-3058
Stable isotope data on alpine catchments in Xinjiang. Gu, W.Z., et al, [1993,eng] 48-2800
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716
Use of sulfate as a tracer for the delayed flow component of alpine glacial runoff. Tranter, M., et al, [1993,eng] 48-1775
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603
Water resources data for Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] 48-1462
What caused the glacial to interglacial CO_2 change. Broecker, W.S., et al, [1991,eng] 48-4758

Water content

Aircraft icing caused by large supercooled droplets. Politovich, M.K., [1989,eng] 48-3064
Aircraft icing conditions detected by remote sensors. Stankov, B.B., et al, [1993,eng] 48-2504
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Cacti freezing tolerance and cold acclimation. Loik, M.E., et al, [1993,eng] 48-2752
Cloud microphysics during wintertime Coloradan storms. Rauber, R.M., et al, [1986,eng] 48-3259
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] 48-3076
Creep behavior of saline fine-grained frozen soil. Wijeweera, H., et al, [1993,eng] 48-1529
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] 48-135
Dynamic instability of seasonally thawing silty soils. Voznesenskii, E.A., et al, [1994,eng] 48-4840
Effect of soil thaw on off-road vehicle traction. Shoop, S.A., [1993,eng] 48-454
Effect of water absorption on frost damage of autoclaved lightweight concrete. Hirai, K., [1982,eng] 48-5375
Expansion of aerated concrete due to frost—determination of critical saturation. Roulet, C.A., [1982,eng] 48-5374
Freezing stress tolerance of hardy and tender families of loblolly pine. Hodge, G.R., et al, [1993,eng] 48-1883
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng] 48-2400
Ice crystal observations and the degree of riming in winter precipitation. Mosimann, L., et al, [1993,eng] 48-217
Ice water content in cirrus clouds. Brown, P.R.A., [1993,eng] 48-2555
Influence of glaciation on an effective-radius parametrization. Blyth, A.M., et al, [1993,eng] 48-2056
Investigation of ice in supercooled clouds, Pt.1. Song, N.H., et al, [1994,eng] 48-2512
Laboratory investigations of the dielectric permittivity of frozen sandy soils. Il'in, V.A., et al, [1993,eng] 48-4285
Modelling of climate-soil processes in the presence of permafrost. Waelbroeck, C., [1993,eng] 48-1613
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] 48-5297
New methods to study snowfall using remote sensing. Koike, T., et al, [1993,eng] 48-2874
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Remote sensing of supercooled liquid water in a winter storm. Sassen, K., et al, [1986,eng] 48-3260
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502
Solar radiation attenuation by ice content of stratus clouds. Derr, V.E., et al [1989,eng] 48-1472
Strength, deformation and thermal strains of concrete at cryogenic conditions. Rostasy, F.S., et al, [1982,eng] 48-5395
Topographic effects on storm precipitation development. Bruintjes, R.T., et al, [1994,eng] 48-2510
Viscosity measurements on very wet soils. Shoop, S.A., [1993,eng] 48-1174
Water stress effects on spruce cold tolerance. Amundson, R.G., et al, [1993,eng] 48-134
See [also]: Snow water content; Unfrozen water content

Water erosion

Comparison of bed load yield estimates for a glacial meltwater stream. Warburton, J., [1990,eng] 48-1584
Erodibility of frozen soil in eastern Canada. Hayhoe, H.N., et al, [1992,eng] 48-2366
Estimation of snowmelt runoff in the Peace River region using a soil moisture budget. Hayhoe, H.N., et al, [1993,eng] 48-3141
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Origin of pradolinas: a re-assessment—a reply to S. Kozarski. Rachocki, A.H., et al, [1991,eng] 48-3651
Pleistocene glacial-lake spillway incision. Kehew, A.E., et al, [1994,eng] 48-5140
Procedure for protecting soils from water erosion. Chmil, A.N., [1992,eng] 48-4070
Tillage variation effects on river basin runoff. Van Vliet, L.J.P., et al, [1993,eng] 48-3140

Water films

Development of an improved model for runback water on aircraft surfaces. Al-Khalil, K.M., et al, [1994,eng] 48-4063
Ellipsometric study of the quasi-liquid layer on ice surface. Furukawa, Y., [1992,jpn] 48-3162
Flashover performance of insulators in the presence of short icicles. Farzaneh, M., et al, [1994,eng] 48-4936
Frost action in a hydrophobic material. Sage, J.D., et al, [1993,eng] 48-4934
Growth rates of icicles. Maeno, N., et al, [1994,eng] 48-5168
Mathematical modeling of the motion of a solid inclusion in a nonisothermal ice mass. Egorov, A.G., et al, [1993,eng] 48-2449
Mechanism of charge transfer between colliding ice particles in thunderstorms. Baker, M.B., et al, [1994,eng] 48-4852
Morphology of nitric acid and water ice films. Keyser, L.F., et al, [1993,eng] 48-603
On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955
Review of the friction of snow skis. Colbeck, S.C., [1994,eng] 48-4952
Role of surface melting in ice skating. White, J.D., [1992,eng] 48-598
Sublimation of water ice below 170 K. Sack, N.J., et al, [1993,eng] 48-2147
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020
Thermodynamics and radar properties of water skins covering growing hailstones. Karev, A., [1993,eng] 48-3753
Weertman regelation at the glacier bed. Hubbard, B., et al, [1993,eng] 48-2391

Water flow

Calculation of flow in the network of snow removing channel. Sugimori, M., [1992,jpn] 48-3158
Effects of background rotation on turbulent line plumes. Fernando, H.J.S., et al, [1993,eng] 48-1118
Flow in ice covered channels. Schmidt, N.P., [1992,eng] 48-2654
Flow-produced obstacle marks around stranded lake burst ice blocks. Russell, A.J., [1993,eng] 48-2454
Freezing of water flow in a horizontal cooled tube. Fukusako, S., et al, [1993,eng] 48-865
Hydrologic and water quality characteristics of a degrading open-system pingo. Slaughter, C.W., et al, [1993,eng] 48-457
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Machines for feeder control in hydraulic transport of snow. Murayama, K., et al, [1992,jpn] 48-3159
Morphology of ice layers in curved rectangular channels. Braun, J., et al, [1993,eng] 48-863
Pulsed flow control device for snow removal drains. Kato, K., et al, [1992,jpn] 48-3160
Rain-induced water percolation in snow as detected using heat flux transducers. Sturm, M.A., et al, [1993,eng] 48-284
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] 48-2552
Snow stability during rain. Conway, H., et al, [1993,eng] 48-3590
Snow transport in an open channel on mild slope configuration. Fukushima, Y., et al, [1993,jpn] 48-3188
Stability of thick ice formation in pipes. Albert, M.R., et al, [1993,eng] 48-866
Study on snow-water mixture flow in snow drain. Sasaki, M., et al, [1993,jpn] 48-1973
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] 48-2396
Subglacial measurement of turbidity and electrical conductivity. Stone, D.B., et al, [1993,eng] 48-2404
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Water circulation and flow regimes in Lake Saroma. Takeuchi, T., [1993,eng] 48-1076
Water quality dynamics in meltwaters draining Peyto Glacier, Alberta. Bradley, C., [1990,eng] 48-2603

Water freezing

See [also]: Ice formation

Water ice interface

See [also]: Ice water interface

Water intakes

Application of the ice model RICE in a rapid river. Bjerke, P.L., et al, [1994,eng] 48-5541
Case study of trash rack icing using a numerical model. Horjen, I., et al, [1994,eng] 48-5602
Cold time operation improvement of the Bucharest water supply intake. Iamandi, C., et al, [1994,eng] 48-3960
Field study of ice control structure on river rapids. Mineta, M., et al, [1994,eng] 48-5551
Ice accretion on trash racks in supercooled flows. Part 1: icing. Horjen, I., [1994,eng] 48-5596
Ice accretion on trash racks in supercooled flows. Part 2: anti-icing. Horjen, I., [1994,eng] 48-5597
Ice effects and control for hydro power production. Billfalk, L., [1992,eng] 48-1533
Impact of ice on hydraulic structures and hydropower stations and its prevention. Li, G.F., et al, [1994,eng] 48-5553
Influence of the bar shape of a trash rack on the ice particle trajectory. Iamandi, C., et al, [1994,eng] 48-3970
Operation of hydro power plants under diverse ice conditions. Freysteinsson, S., et al, [1994,eng] 48-5549
Protection against ice and sediment at water intakes. Iamandi, C., et al, [1994,eng] 48-5550
Seeking solutions for icing at dams and hydro plants. Haynes, F.D., [1993,eng] 48-2086
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882

Water jets

See [also]: Hydraulic jets

Water level

Automated short term forecasts of discharges and water levels for the Northern Dvina river system. Bel'chikov, V.A., et al, [1992,rus] 48-1946
Geochemical monitoring of antarctic lakes and their ecosystems. Matsumoto, G.I., [1994,eng] 48-4640
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] 48-2378
Hydrology and glaciology, Dry Valleys, Antarctica: annual report for 1982-1983. Chinn, T.J., et al, [1986,eng] 48-3044
Hypothesis regarding ice-dammed lake drainage initiation. Knight, P.G., et al, [1993,eng] 48-3597
Ice jams on the Pripyat River in the winter of 1990-1991 and ice-dam prevention. Filippov, A.M., et al, [1992,eng] 48-1244
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Interactions between ice and the surface of a rockfill dam. Hideshima, Y., et al, [1994,eng] 48-3957
Intrusive ice development in lake bottom sediments. Burn, C.R., [1993,eng] 48-360
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Millimeter-wave FM-CW radar for automatic, continuous river stage measurement. Yankielun, N.E., et al, [1993,eng] 48-2084
Prediction of land subsidence due to ground-water use in snow country. Mizumura, K., [1994,eng] 48-3802
Record of jökulhlaups from Summit Lake, northwestern British Columbia. Mathews, W.H., et al, [1993,eng] 48-1221
Reservoir control to prevent tailwater ice jamming. Karnovich, V.N., [1992,eng] 48-1545
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] 48-2552
Surface ice transport through a river bend. Bjedov, G., et al, [1992,eng] 48-3789
Water resources data for Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] 48-1462
See [also]: Sea level; Water table

Water pipelines

Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
Controlling the proportion of snow in snow removal drains. Kitahara, T., et al, [1992,jpn] 48-3164
Frost heave damage to buildings and water pipelines in permafrost. Jiao, T.B., [1993,chi] 48-4507
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Insulation of buried water lines in cold regions. Dilger, W.H., et al, [1994,eng] 48-3378
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Prevention and treatment of frost damage on buildings and canals in permafrost regions. Jiao, T.B., [1993,eng] 48-5218

Water pipes

Anti-siphon frost free faucet. Enterante, F., et al, [1990,eng] 48-2182
Application of a snow water mixture transport system for urban areas. Isobe, K., et al, [1988,jpn] 48-561
Corrosion control of child care centers at Air Force bases in Alaska. Boyd, W.K., et al, [1993,eng] 48-5430
Development of a circulation-type snow removal drain system. Sato, Y., [1989,jpn] 48-705
Development of technology for hydraulic transport of snow. Kobayashi, T., et al, [1987,jpn] 48-281
Experiments and analysis of pipe freezing. Williams, R., et al, [1993,eng] 48-867
Freezing of water in a closed circular tube. Sugawara, M., et al, [1993,eng] 48-868
Hydraulic transport of snow by pipe. Umemura, A., et al, [1986,jpn] 48-32
Icy water suction dredger two-piece overflow pipe. Laitera, J., [1984,eng] 48-4417
Making a snow mountain (application of a pipe transport system for snow water mixture). Isobe, K., et al, [1986,jpn] 48-35
Snow removal system using existing roadside ditches. Isobe, K., et al, [1986,jpn] 48-265

Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Surface snow removal system by snow removal pipe. Isobe, K., et al, [1986,jpn] 48-24
Water pollution
Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893
Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Anthropogenic ^{129}I in the Kara Sea. Raisbeck, G.M., et al, [1993,eng] 48-4526
Anthropogenic destruction of ecosystems in the Barents and Norwegian seas. Matishov, G.G., [1992,rus] 48-726
Anthropogenic lead in antarctic sea water. Flegal, A.R., et al, [1993,eng] 48-332
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] 48-3033
Casing materials for ground water monitoring wells. Parker, L.V., et al, [1994,eng] 48-5413
Changes in the chemical composition of surface waters in the northern Kola Peninsula under the influence of acid precipitation. Moiseenko, T.I., et al, [1992,rus] 48-2120
Cold environment tests of oil skimmer. Wessels, E., [1993,eng] 48-162
Comparison of explosive extraction methods for ground water testing. Jenkins, T.F., et al, [1994,eng] 48-3825
Composition of melt water from urban snow. A laboratory study. Viklander, M., et al, [1994,eng] 48-3968
Contamination with ^{90}Sr and discharge of the radionuclide for the Techa, Karabolka, and Ob' rivers. Chumichev, V.B., et al, [1993,eng] 48-4523
Deicing salt effects on roadside soil chemical mobility. Amrhein, C., et al, [1993,eng] 48-1759
Disposing of de-icing chemical runoff at airports. O'Connor, R., et al, [1993,eng] 48-2758
Distribution of radiocesium and plutonium in arctic water and sediments, results from the Swedish ODEN-Expedition, 1991. Roos, P., et al, [1993,eng] 48-4530
Dumping of radioactive wastes into the sea environment: scientific and practical aspects. Kuznetsov, IU.V., et al, [1993,eng] 48-4513
Ecological studies in the White Sea on the R/V *Ivan Petrov*, 21 June to 12 July 1991. Sapozhnikov, V.V., [1992,eng] 48-2606
Effect of wind, ice and waves on the *in-situ* burning of emulsions and aged oils. Bech, C., et al, [1993,eng] 48-3720
Efficiency of equipment to reduce the harmful effects of oil spills at sea—an overview. Løset, S., [1993,eng] 48-160
Environmental and sanitation problems related to radioactive waste dumping into the arctic seas. Petrov, O., [1993,eng] 48-4520
Environmental effects of highway runoff water. A literature review. Folkeson, L., [1994,swe] 48-4021
Environmental impact of a subsea natural gas pipeline failure. Hyttinen, H., et al, [1994,eng] 48-3986
Environmental impact of road salting—state of the art. Jones, P.H., et al, [1986,eng] 48-3119
Episodic acidification of freshwater systems in Canada. Tranter, M., et al, [1994,eng] 48-3621
Estimated inventory of radionuclides in former Soviet Union naval reactors dumped in the Kara Sea. Mount, M.E., et al, [1993,eng] 48-4517
Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska. Munter, J.A., [1994,eng] 48-5101
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Experimental oil spills in the Barents Sea marginal ice zone. Johannessen, B.O., et al, [1993,eng] 48-159
Experiments with explosive-contaminated soil. Jenkins, T.F., et al, [1993,eng] 48-723
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean. Nikitin, A.I., et al, [1993,eng] 48-4524
Finnish model for runoff and erosion prediction. Rekolainen, S., et al, [1993,eng] 48-2674
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138
IAEA programs related to radioactive waste dumped in the arctic seas. Part 2. Baxter, M.S., et al, [1993,eng] 48-4519
IAEA programs relevant to radioactive waste dumped in the arctic seas. Part 1. Sjoeblom, K.L., et al, [1993,eng] 48-4518
Impact of overflows on acid-base chemistry in limed lakes. Abrahamsson, I., [1993,eng] 48-3613
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Italian antarctic research on the chemistry of environmental impact. Cescon, P., [1992,ita] 48-3245
Key Lake spill. Final report.[1984,eng] 48-3677
Law of the sea and the polar regions. Rothwell, D.R., et al, [1994,eng] 48-5120
Measurement of the ^{129}I distribution in sediments sampled from the arctic seas surrounding Novaya Zemlya. Kilius, L.R., et al, [1993,eng] 48-4556
Modeling enrichment of soluble pollutants in snow covers. Akan, A.O., [1994,eng] 48-4251
Modeling oil spills in a river-lake system. Yapa, P.D., et al, [1994,eng] 48-3619
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] 48-4953
Oil spill simulations as a contingency planning tool offshore West Greenland. Christensen, F.T., et al, [1993,eng] 48-158
Oil spreading in surface waters with an ice cover. Yapa, P.D., et al, [1993,eng] 48-317
On-site gas chromatography detection of trichloroethylene. Hewitt, A.D., [1993,eng] 48-1092
Pollution of fallen snow in urban areas. Tachibana, H., et al, [1994,eng] 48-3966
Preliminary assessment of sedimentation and erosion in Eagle River Flats, South-Central Alaska. Lawson, D.E., et al, [1993,eng] 48-3491
Preliminary evaluation of the analytical holding time for white phosphorus in surface water. Walsh, M.E., et al, [1994,eng] 48-5405
Proceedings. Arctic and Marine Oil Spill Program (AMOP) Technical Seminar, 16th, Calgary, Alberta, June 7-9, 1993, [1993,eng] 48-3714
Radioactive contamination of Russian arctic seas from results of observations during the years 1960-1992. Vakulovskiĭ, S.M., et al, [1993,eng] 48-4532
Radioactive contamination of the Ob River system from the nuclear enterprise "Majak" in the Urals. Trapeznikov, A., et al, [1993,eng] 48-4528
Radionuclides in the water of the Arctic Shelf and interior: 1979-1987. Livingston, H.D., et al, [1993,eng] 48-4546
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
Results from oil-spill response research 1991-1992. Tennyson, E.J., [1993,eng] 48-793
Seabed sources of radionuclides in the dumped reactor compartment of atomic icebreaker *Lenin*. Sivintsev, IU., [1993,eng] 48-4516
Sellafield as a source of radioactivity to the Barents Sea. Kershaw, P.J., et al, [1993,eng] 48-4531
Snowmelt runoff in a boreal forest in Quebec (II). Suzuki, K., et al, [1992,jpn] 48-3210
Spatial distribution and estimation of tritium budget in western arctic seas of Russia and Arctic Ocean. Katrich, LIU., [1993,eng] 48-4555
Survey of artificial radionuclides in the Kara Sea. Strand, P., et al, [1993,eng] 48-4514
Synopsis of research conducted under the 1992/93 Northern Contaminants Program. Murray, J.L., ed, et al, [1993,eng] 48-3609
Terrain and geochemical aspects of the interaction between natural and anthropogenic factors. Khrustaleva, M.A., [1990,rus] 48-2072
Toxicity of aircraft de-icer and anti-icer solutions to aquatic organisms. Hartwell, S.I., et al, [1993,eng] 48-1846
Transfer of reprocessing wastes from NW Europe to the Arctic. Kershaw, P.J., et al, [1993,eng] 48-4521
Transport of artificial radioactivity by the Ob' to the arctic seas. Vakulovskiĭ, S.M., [1993,eng] 48-4522
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318
Use of chromatographic indexes to study the biodegradation of crude oil in cold/icy seawater. Siron, R., et al, [1993,eng] 48-3716
Water treatment apparatus and method. Connery, C.A., [1989,eng] 48-4082
Where does all the Cs and Sr in Greenland waters come from. Dahlgaard, H., [1993,eng] 48-4525
Water pressure
Active layer detachment slides, Ellesmere I. Harris, C., et al, [1993,eng] 48-2207
Canadian till preconsolidation by glacial loading. Sauer, E.K., et al, [1993,eng] 48-1220
Downslope movements at shallow depths related to cyclic pore-pressure changes. Eigenbrod, K.D., [1993,eng] 48-1014
Effect of ice layer on hydrodynamic pressure of structures. Sun, K., [1993,eng] 48-1528
Hydrology of Conness Glacier, Sierra Nevada. Lecce, S.A., [1993,eng] 48-2384
Increasing icemaking efficiency by continuous solidification. Boyette, M.D., et al, [1993,eng] 48-2506
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Physical phenomena in water freezing in closed cavities. Razgovorova, E.L., [1994,eng] 48-5598
Pore pressure measurements during clay silt freezing. Seto, J.T.C., et al, [1994,eng] 48-5110
Simulation on thaw consolidations of saturated frozen soil. Ma, W., et al, [1994,eng] 48-3396
Subglacial hydraulic properties estimated from basal water pressure. Stone, D.B., et al, [1993,eng] 48-2396
Water purification
See [also]: Aeration; Water treatment
Water reserves
Alaska's groundwater quality protection strategy. Ashton, B., [1990,eng] 48-2993
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102
Annual snowpack and water yield in an Arizona mountain basin. Jones, R.A., [1993,eng] 48-2956
Canada Water Act Annual Report—1988-90. Environment Canada, [1989,eng] 48-3035
Determination of discharge with fluorescence tracers in the Nepal Himalayas. Spreafico, M., et al, [1993,eng] 48-2768
Development of water resources from snow dams. Tanaka, S., [1988,jpn] 48-657
Estimation of alpine glacier water resources and their change since the 1870s. Chen, J.Y., et al, [1990,eng] 48-1576
Estimation of snowmelt runoff from remote sensing data. Thapa, K.B., [1993,eng] 48-2773
Forecasting water supply from snowpack. Johnson, D.E., [1993,eng] 48-682
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138
Measuring service for snow and glacier hydrology in Nepal. Grabs, W.E., et al, [1993,eng] 48-2767
Modeling for water supply forecasting in the West. Garen, D.C., [1993,eng] 48-688
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] 48-1470
Permafrost and ground water in the Greater Khingan Range. Yuan, H.Y., et al, [1993,chi] 48-4490
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] 48-495
Proceedings. Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's, Fort Collins, CO, June 6-9, 1993, [1993,eng] 48-679
Regional cooperation in hydrological research and training in the Hindu Kush-Himalaya. Chalise, S.R., [1993,eng] 48-2770
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] 48-4123
Snow and Ice Hydrology Project; a Pakistan-Canada research and training programme. Hewitt, K., et al, [1993,eng] 48-2771
Snowmelt runoff simulation models and their suitability in Himalayan conditions. Verdhen, A., et al, [1993,eng] 48-2788
Soil water content regulating procedure. Bagirov, M.N., et al, [1992,eng] 48-4068
Studying snow cover from radar images. Monakhov, A.K., et al, [1993,eng] 48-3933
Water in the solid phase: the state of our snow and ice resources. Ommanney, C.S.L., [1989,eng] 48-2509
Water resources data for Alaska, water year 1992. Kemnitz, R.T., et al, [1993,eng] 48-1462
Water resources, snow and ice. Haefner, H., et al, [1991,eng] 48-4868
Watershed modeling—spatial partitioning using GIS. Jeton, A.E., et al, [1993,eng] 48-687
Water retention
Short- and long-term patterns of soil moisture in alpine tundra. Taylor, R.V., et al, [1994,eng] 48-3502
Water storage
Frozen soil infiltration defined by air permeability. Saxton, K.E., et al, [1993,eng] 48-3836
Long-term records of snow cover water equivalent in the Swiss Alps. 1. Analysis. Rohrer, M.B., et al, [1994,eng] 48-4709
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Water tank cathodic protection system. Garlinger, R.A., [1990,eng] 48-2170
See [also]: Ice (water storage); Snow retention; Snow water equivalent; Water retention
Water structure
Computation of ice-water interface density. Hummer, G., et al, [1994,eng] 48-3011
Crystallization kinetics of water below 150 K. Hage, W., et al, [1994,eng] 48-2999
Dynamical states in liquid water. Aliotta, F., et al, [1993,eng] 48-2367
Existence of two H-bonds of different strengths in ice and the possible implications. Li, J.C., et al, [1994,eng] 48-5383
Graph theoretical analysis of water clusters. Radhakrishnan, T.P., et al, [1991,eng] 48-3762
Ice VIII properties from crystal-orbital calculations. Ojamäe, L., et al, [1994,eng] 48-2740
Influence of steps on the H2O adsorption on Ni(s) (111). Mundt C., et al, [1993,eng] 48-74
Infrared investigation of water/ice physical properties. Ajvazyan, H.M., [1994,eng] 48-5155
Laws governing the formation of large scale changes in the hydrological regime of the Arctic Ocean. Nikiforov, E.G., et al, [1980,rus] 48-1913
Manifestation of large-scale fluctuation of water structure in the morphology of snow and other objects. Okinshevich, V.V., [1990,rus] 48-306
Molecular dynamics results for stretched water. Ruocco, G., et al, [1993,eng] 48-1620
Neutron diffraction of hydration in supercooled solutions. Yamagami, M., et al, [1994,eng] 48-3000
Neutron scattering from polycrystalline ice. Bermejo, F.J., et al, [1993,eng] 48-1373
Noncritical behavior of density fluctuations in supercooled water. Xie, Y.L., et al, [1993,eng] 48-1020
Properties of liquid water: origin of the density anomalies. Vedamuthu, M., et al, [1994,eng] 48-4715
Slow dynamics of water molecules in confined space. Bellissent-Funel, M.C., et al, [1993,eng] 48-2591
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841

Studies into the physics of liquid phase in ice-containing clouds. Nevzorov, A.N., [1993,eng] 48-5295
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Vibration fluctuations in polycrystalline ice. Criado, A., et al, [1993,eng] 48-2027
Water phase transition at excess chemical potential. Ji, J., et al, [1994,eng] 48-4646
X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Water supply
Alpine glaciers—memories and mirrors of civilization and a mountain environment. Vivian, R., [1989,fre] 48-1819
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Barley evapotranspiration in the subarctic. Sharratt, B.S., [1994,eng] 48-5007
Below the tip of an iceberg. Crane, D., [1993,eng] 48-5366
Climatic warming effects on lake water quality. Fushimi, H., [1993,eng] 48-2863
Comprehensive domestic water quality study in the Northwest Territories. Facey, R.M., et al, [1994,eng] 48-3377
Computer program for designing pipe networks for arctic settlements. James, W., et al, [1979,eng] 48-4141
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Effects of added water on an alpine forb. Enquist, B.J., et al, [1994,eng] 48-3504
Environmental protection in the design of land irrigation and water supply (Yakutia). Fedorov, P.F., [1992,rus] 48-4792
Feasibility of conveying water by a canal in winter. Wu, Z.W., et al, [1993,chi] 48-1451
Forty years in frozen ground—the Fairbanks water distribution system. Mauser, M., [1994,eng] 48-3379
Freeze prevention of a canal for conveying water in winter. Li, S.X., [1993,chi] 48-1452
Frozen ground and the western waterway from south to north. Zhang, C.Q., et al, [1993,chi] 48-1453
G.I.S. analysis of snow cover-hydroelectric potential variables. Rossi, G., et al, [1993,ita] 48-4109
Glaciology and hydroelectric production in Switzerland. Bonvin, J.M., et al, [1993,fre] 48-4097
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138
Modern methods for determination of the base flow in the cryolithic zone. Sokolov, B.L., et al, [1993,eng] 48-5297
Origin and significance of subarctic patchy podzolic soils and paleosols. Payette, S., et al, [1993,eng] 48-2414
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] 48-5552
Safe water for villages of the North Slope Borough. Shillington, E.I., et al, [1994,eng] 48-3376
Satellite image atlas of glaciers of the world: Europe. Williams, R.S., Jr., ed, et al, [1993,eng] 48-4027
Selection of sanitation alternatives: a strategy for remote Alaskan communities. Olofsson, J.A., et al, [1994,eng] 48-3383
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737
Snow hydrology in the Colorado River basin from radiometry. Josberger, E.G., et al, [1993,eng] 48-1343
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Snowmelt runoff in a Pakistani river basin. Ali, G., [1989,eng] 48-2602
Solar energy potentialities and prospects in Antarctica. Sheinstein, A.S., et al, [1993,rus] 48-3568
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
See [also]: Alimentation

Water table
Countermeasures to prevent canal structures from frost damage. Jian, G., [1993,eng] 48-404
Effect of lowered water table on nitrous oxide fluxes from northern peatlands. Martikainen, P.J., et al, [1993,eng] 48-1121
Frost heave forces and pile stability. Lu, X.L., et al, [1993,eng] 48-427
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Reducing frost mounds under foundations by lowering the water table. Liu, S.F., et al, [1993,chi] 48-4495
Reduction of frost heave by lowering the water table. Liu, S.F., et al, [1993,eng] 48-5225
Runoff modelling in Latvia. Krams, M., et al, [1993,eng] 48-2889
Study of forecast of frost heave on canals. Li, A.G., et al, [1993,eng] 48-420

Water temperature
Antarctic sea ice and ENSO event. Hao, C.J., et al, [1993,eng] 48-4842
Chukchi Sea hydrography in 1990-92. Miyake, H., et al, [1994,eng] 48-4993
Computer animation of Great Lakes water temperature. Schneider, K., et al, [1993,eng] 48-3937
Correlations between climate records from North Atlantic sediments and Greenland ice. Bond, G., et al, [1993,eng] 48-335
Diagnostic modelling studies of the Iceland-Faeroe front. Warn-Varnas, A., et al, [1993,eng] 48-3751
Direct oceanographic observations from under the Rutford flowline, Ronne Ice Shelf. Nicholls, K.W., et al, [1991,eng] 48-6
Driving force of brine rejection on the deepwater formation in the Hamburg LSG OGCM. Maier-Reimer, E., [1993,eng] 48-4190
Flow structure and heat transfer by natural convection near the density maximum. Bennacer, R., et al, [1993,fre] 48-601
Glacial ocean: a study with a zonally averaged, three-basin ocean circulation model. Fichefet, T., et al, [1993,eng] 48-4199
Groundwater temperatures during the winter in a forested basin Calkins, D.J., [1993,eng] 48-292
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] 48-3766
Hydrographic research in a Greenland fjord, 1959. Lüthje, H., et al, [1990,ger] 48-799
Hydrographical observations along the 75 deg N cross-section in the Greenland Basin. Doronin, N.IU., et al, [1992,eng] 48-2904
Ice shelf basal melting: implications of a simple mathematical model. Jenkins, A., [1991,eng] 48-7
Influence of Filchner-Ronne Ice Shelf on the Weddell Sea. Jenkins, A., [1992,eng] 48-234
Influence of wave activity on anomalous changes in the ozone layer. Zhadin, E.A., [1993,rus] 48-2491
Instrumented moorings and CTD measurements. Österhus, S., et al, [1992,eng] 48-2897
Isotope analysis of Arctic Ocean surface water plankton. Spielhagen, R.F., et al, [1994,eng] 48-5635
Limnological investigations in the Untersee Oasis (Queen Maud Land, East Antarctica). Kaup, E., et al, [1988,eng] 48-2550
Links of the southern ocean to the global climate. Olbers, D., [1993,eng] 48-3728
Mathematical model of ice-bank system performance. Finer, S.I., et al, [1993,eng] 48-3199
Model description, external forcing, and surface boundary conditions. Kutzbach, J.E., et al, [1993,eng] 48-2976
Ocean heat and seasonal sea ice thickness in the southern ocean. Martinson, D.G., [1993,eng] 48-4206
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
Oceanographic data from Lützow-Holm Bay, Jan. 1991-Feb. 1992. Ohshima, K.I., et al, [1994,eng] 48-4765
Oceanographic measurements under Ronne Ice Shelf. Robinson, A.V., et al, [1992,eng] 48-241
On the problem of reservoir freezeover. Shatalina, I.N., et al, [1992,eng] 48-1548
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line). Fujimura, M., [1993,jpn] 48-1031
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Pleistocene meltwater routing during atmospheric cooling. Broecker, W.S., et al, [1989,eng] 48-1813
Probable deep winter convection in Fram Strait. Bogorodskii, P.V., et al, [1992,eng] 48-1767
Refinement and application of a new paleotemperature estimation technique. Sikes, E.L., [1990,eng] 48-3709
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Runoffs from lake catchments of the Schirmacher Ponds during summer 1983-1984. Loopmann, A., et al, [1988,eng] 48-2552
Simulation of estuary hydrology. Doronin, IU.P., [1992,eng] 48-1766
Simulation of subsea permafrost variations, Mackenzie Delta. Wang, B.L., [1993,eng] 48-475
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Snowmelt hydrograph separation. Kobayashi, D., et al, [1993,eng] 48-1774
Some characteristics of the hydrological regime of the ice edge zone of the Greenland Sea. Anokhin, V.N., et al, [1992,rus] 48-2742
Static permittivity of normal supercooled water by study of alkylhydrazines/water mixture. Noyel, G., et al, [1994,eng] 48-4841
Studies through Jutulgryta, Fimbulisen in the 1991/92 season. Österhus, S., et al, [1992,eng] 48-253
Summertime synoptic variability of frontal systems in the northern Bering Sea. Gawarkiewicz, G., et al, [1994,eng] 48-4052
Surface temperature and salinity of the Okhotsk Sea. IAkunin, L.P., [1993,eng] 48-1088
Temperature and salinity beneath Ronne Ice Shelf, Antarctica. Nicholls, K.W., et al, [1993,eng] 48-3003
Temperature and salinity statistics for the northern Baltic Sea 1961-1990. Haapala, J., et al, [1994,eng] 48-4949
Temperature differences in the Restigouche estuary during the ice-covered season. Bettignies, C., et al, [1994,eng] 48-3360
Thermal interaction between water flow and frozen ground under hydroerosion. Bondarev, E.A., et al, [1993,eng] 48-2763
Thermal structure of the coastal polynya off Showa Station. Ushio, S., et al, [1993,jpn] 48-2875
Thermodynamic continuity between glassy and normal water. Johari, G.P., et al, [1994,eng] 48-4818
Thermohaline structure around waters in coastal glaciers and icebergs. Egorova, V.A., et al, [1987,rus] 48-2756
Tomography of Greenland Sea temperature field. Worcester, P.F., et al, [1993,eng] 48-2211
Topographic and eddy effects in a primitive equation model of the Iceland-Faeroes Front. Maskell, S.J., et al, [1992,eng] 48-5322
Turbulent mixing under drifting pack ice in the Weddell Sea. McPhee, M.G., et al, [1994,eng] 48-2554
Validation of cold climate lake temperature simulation. Gu, R.C., et al, [1993,eng] 48-2736
Variation of water temperature in an ice-covered stream. Miya, A., et al, [1994,eng] 48-5543
Water exchange between the Okhotsk Sea and Pacific Ocean. Kawasaki, Y., et al, [1993,eng] 48-1030
Water mass fine structure around Kuril Islands. Kono, T., et al, [1993,eng] 48-1029
X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Water transport
^{228}RA as a tracer for shelf water in the Arctic Ocean. Van der Loeff, M.M.R., et al, [1993,eng] 48-4544
Field studies of transport of Sellafield radioactive wastes to western arctic seas and Arctic Ocean. Nikitin, A.I., et al, [1993,eng] 48-4524
Glacier borehole water-level variations. Fountain, A.G., [1994,eng] 48-5166
Hydrographic atlas of the southern ocean. Olbers, D., et al, [1992,eng] 48-3766
Laboratory simulation of the ocean currents in the Barents Sea. McClimans, T.A., et al, [1993,eng] 48-3623
Large-scale structure of the Iceland-Faeroe Front. Perkins, H., [1992,eng] 48-1780
Limestone pore structure and frost resistance. Bellanger, M., et al, [1993,eng] 48-3193
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Method and equipment for maintaining ice-free locks. Pontynen, E., [1993,eng] 48-1656
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Oyashio water structure in the sea south of Hokkaido (41 deg 30 min N line). Fujimura, M., [1993,jpn] 48-1031
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Problems of water transfer from south to north China over western permafrost areas. Zhang, C.Q., et al, [1993,eng] 48-495
Recent calcium carbonate dissolution in the Barents Sea: paleoceanographic applications. Steinsund, P.I., et al, [1994,eng] 48-3806
Recent history of Mars water cycle. Jakosky, B.M., et al, [1993,eng] 48-1618
Russians open the Arctic for business. Brigham, L.W., [1993,eng] 48-1099
Snow-melting system on railway tracks using feed forward control. Sawase, K., et al, [1992,eng] 48-2600
Subglacial investigations at Bondhusbreen, Folgefonni, Norway. Hagen, J.O., et al, [1993,eng] 48-2882
Surface processes in Greenland Sea convection. Carsey, F.D., [1994,eng] 48-3463
Transport of artificial radioactivity by the Ob' to the arctic seas. Vakulovskii, S.M., [1993,eng] 48-4522
Under-ice vertical velocities at Resolute Bay during the SARES experiment. Marsden, R.F., [1993,eng] 48-1080
Uranium and tritium in the glacial lakes of northern Tien Shan. Tuzova, T.V., et al, [1994,eng] 48-4061
Water exchange between the Okhotsk Sea and Pacific Ocean. Kawasaki, Y., et al, [1993,eng] 48-1030
Water mass fine structure around Kuril Islands. Kono, T., et al, [1993,eng] 48-1029
See [also]: Moisture transfer; Soil water migration

Water treatment
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102
Application of Canadian design and construction techniques for the Canadian village, Republic of Sakha (Yakutia), Russia. Hostland, C., et al, [1994,eng] 48-3351
Comprehensive domestic water quality study in the Northwest Territories. Facey, R.M., et al, [1994,eng] 48-3377
Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] 48-5008
Evaluation of ground water at a proposed wastewater disposal site, Gambell, Alaska. Munter, J.A., [1994,eng] 48-5101
Freeze-thaw effects on activated sludge processing. Matsuda, A., et al, [1994,eng] 48-3635
Fundamentals of sludge dewatering in freezing beds. Martel, C.J., [1993,eng] 48-1372
Mechanical freezing of alum sludge. Martel, C.J., [1994,eng] 48-5376
Methanogenic degradation of organic matter by anaerobic bacteria at low temperature. Kotsiurbenko, O.R., et al, [1993,eng] 48-1898
Recycling of aircraft deicing fluids. Backer, D.S., et al, [1994,eng] 48-5142
River ice and the water quality in hydropower plant reservoirs. Shatalina, I.N., et al, [1994,eng] 48-5552

Valdez initiates sludge disposal operations. Van Hemert, W., et al, [1993,eng] 48-1886
Wastewater sludge analysis with freeze concentration method. Slade, A.H., et al, [1993,eng] 48-973
Water treatment apparatus and method. Connery, C.A., [1989,eng] 48-4082
See [also]: Aeration

Water vapor
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Boundary layer climate in a subarctic lichen woodland. Fitzjarrald, D.R., et al, [1994,eng] 48-4635
Comparison of arctic stratosphere chemistry survey data. Tuck, A.F., et al, [1993,eng] 48-626
Comparison of observed and modeled stratospheric water vapor. Mote, P.W., et al, [1993,eng] 48-636
Cracks in arctic ice may upset climate models. Miller, J., [1989,eng] 48-1749
Effects of various factors on rime icing; water vapor content. Uchida, T., et al, [1993,jpn] 48-3169
Enthalpies of water + methanol mixtures between 180 K and 320 K. Cochran, S.W., et al, [1991,eng] 48-925
Ice cloud formation in the Martian atmosphere. Michelangeli, D.V., et al, [1993,eng] 48-1617
Influence of acidic mist on spruce frost hardiness, pt.1. Sheppard, L.J., et al, [1993,eng] 48-4280
Influence of acidic mist on spruce frost hardiness, pt.2. Sheppard, L.J., et al, [1993,eng] 48-4281
Ocean-atmosphere-ice sheet model of long-term climatic change. Wang, H.X., et al, [1993,eng] 48-4192
Seasonal behavior of water on Mars. Jakosky, B.M., et al, [1992,eng] 48-5044
Some observations of gravity-wave-induced structure in ozone and water vapour during EASOE. Teitelbaum, H., et al, [1994,eng] 48-5508
Some results of water vapor, ozone and aerosol balloon borne measurements during EASOE. Khattatov, V., et al, [1994,eng] 48-5465
Springtime stratospheric water vapour in the southern hemisphere as measured by MLS. Harwood, R.S., et al, [1993,eng] 48-625
Stratospheric dryness: antiphased desiccation over Micronesia and Antarctica. Tuck, A.F., et al, [1993,eng] 48-624
Stratospheric water vapor content evolution during EASOE. Ovarlez, J., et al, [1994,eng] 48-5449
Tropospheric rivers and ice core data. Newell, R.E., et al, [1994,eng] 48-4391
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610

Water waves
Fracture of river ice covers by river waves. Daly, S.F., [1994,eng] 48-5546
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Ice control in northern harbors. Saeki, H., [1992,eng] 48-1534
Implications of Beaufort Sea-ice changes for petroleum industry. McGillivray, D.G., et al, [1993,eng] 48-1276
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] 48-1242
See [also]: Ocean waves

Waterproofing
Experimental study of canal lining prevented from frost damage and seepage. Ren, Z.Z., [1993,eng] 48-5233
General considerations for roofs. Tobiasson, W., [1994,eng] 48-4008
Guidelines for type approval of waterproofing materials for concrete bridges. Wegan, V., [1994,eng] 48-4002
Hydrotechnical dam structure with insulated water duct in frozen ground. Kuznetsov, G.I., et al, [1992,eng] 48-5530
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962
Junction between water duct and ice and earth dam wall. IAgin, V.P., [1992,eng] 48-5531
Pavement crack routing and sealing. Hozayen, H., et al, [1993,eng] 48-5067
Pumpable high strength lightweight concrete for structures in arctic marine environment. Iida, K., et al, [1986,eng] 48-5314
Simulation of the effect of wind on clothing by measurements and calculations. Anttonen, H., et al, [1993,eng] 48-4902
User's guide: subsurface drainage for military pavements. Grogan, W.P., [1992,eng] 48-4751

Watersheds
Alpine stream geochemistry, Colorado Front Range. Caine, N., et al, [1990,eng] 48-2341
Aluminum chemistry in two pristine alpine lakes of the Central Cascades, Washington. Easthouse, K.B., et al, [1993,eng] 48-3556
Application of a land class hydrological model to climatic change. Kite, G.W., [1993,eng] 48-285
Application of oxygen-18 tracer techniques to arctic hydrological processes. Cooper, L.W., et al, [1993,eng] 48-944
Application of the ETH snow model to three basins of different character in central Europe. Hottelet, C., et al, [1994,eng] 48-4713
Bedload movement controls in a subalpine stream. Adenlof, K.A., et al, [1994,eng] 48-3510
Controls on soil solution chemistry in a subalpine forest in north-central Colorado. Arthur, M.A., et al, [1993,eng] 48-695
Effect of simulated climate change on snowmelt runoff modeling in selected basins. Van Katwijk, V.F., et al, [1993,eng] 48-2019
Estimating evaporation in a subarctic watershed. Gibson, J.J., et al, [1993,eng] 48-1152
Evaluation of precipitation gauges for measuring precipitation on mountainous watersheds. Hanson, C.L., [1990,eng] 48-1568
Evaporation of intercepted snow—review of existing and new measurement methods. Lundberg, A., [1993,eng] 48-2376
Experimental Norwegian alpine watershed acidification. Wright, R.F., et al, [1994,eng] 48-3622
Glacial runoff effect on Chinese river flow. Wang, Z.T., [1992,eng] 48-302
Groundwater response to mountain snowmelt. Flerchinger, G.N., et al, [1993,eng] 48-2378
Hillslope hydrology in an arctic setting. Hinzman, L.D., et al, [1993,eng] 48-398
Hydrochemistry in a snowmelt dominated catchment. Finley, J.B., Jr., [1993,eng] 48-3531
Hydrochemistry of a seasonally snow covered watershed. Williams, M.W., [1992,eng] 48-3526
Hydrologic response of freshwater watersheds to climatic variability: model development. Nikolaidis, N.P., et al, [1993,eng] 48-2054
Importance of runoff and winter anoxia to the P and N dynamics of a beaver pond. Devito, K.J., et al, [1993,eng] 48-3007
Influence of soil interstitial water on alpine streams. Litaor, M.I., [1993,eng] 48-3008
Integration of field data into operational snowmelt-runoff models. Brandt, M., et al, [1994,eng] 48-4712
Interactive calibration for the SSARR watershed model. Rockwood, D.M., et al, [1993,eng] 48-2954
Isotope hydrograph separation for drainage basins. Buttle, J.M., [1994,eng] 48-4973
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Northern hydrology and water resources in a changing environment. Kane, D.L., [1992,eng] 48-2034
Operational forecasting snowmelt model with objective calibration. Rodriguez, J.Y., [1994,eng] 48-4711
Problem of conservation of the water basin in the Krasnoyarsk region. Nepomniashchaia, N.V., [1993,rus] 48-1524
Regional and temporal patterns of total solutes in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-63
Role of snow in alpine permafrost hydrology. Yang, D.Q., et al, [1993,eng] 48-490
Sediment rating curves for a clearcut ponderosa pine watershed in northern Arizona. Lopes, V.L., et al, [1993,eng] 48-1752
Snowmelt runoff and total solids production in a discontinuous permafrost basin. Chacho, E.F., Jr., [1993,eng] 48-1151
Snowmelt simulation using various modeling parameters. Braun, L.N., et al, [1994,eng] 48-4714
Spatial-temporal variability in the characteristics of snow cover in the terrain of Central Meshchera. D'iakonov, K.N., et al, [1993,rus] 48-3740
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] 48-2329
Temporal variation in snowcover area during melt in prairie and alpine environments. Shook, K., et al, [1993,eng] 48-1157
Total solutes loads and geochemical yields in the Saskatchewan River basin. Taylor, B.R., et al, [1993,eng] 48-64
Use of spatially distributed data to model arctic hydrologic processes. Kane, D.L., et al, [1993,eng] 48-410
Variations in northern Sierra Nevada streamflow: implications of climate change. Pupacko, A., [1993,eng] 48-65
Varve formation in an alpine proglacial lake. Leemann, A., et al, [1994,eng] 48-4942
Watershed modeling—spatial partitioning using GIS. Jeton, A.E., et al, [1993,eng] 48-687
See [also]: River basins

Wave propagation
1.54/10.6 micron eyesafe laser rangefinders performance under adverse weather conditions. Larochelle, V., et al, [1993,eng] 48-4819
Absorption and scattering of microwaves by falling snow. Chýlek, P., et al, [1993,eng] 48-2004
Acoustic propagation in the Barents Sea. Ray, D.S., [1993,eng] 48-2503
Airborne synthetic aperture radar observations and simulations for waves in ice. Vachon, P.W., et al, [1993,eng] 48-977
Application of a mixture theory to stress waves in snow. Austiguy, G.E., Jr., et al, [1993,eng] 48-2866
Attenuation of outdoor sound propagation levels by a snow cover. Albert, D.G., [1993,eng] 48-2607
Biot-Stoll model of the high-frequency reflection coefficient of sea ice. Sammelmann, G.S., [1993,eng] 48-1375
Combined surface- and volume-scattering model for ice-sheet radar altimetry. Davis, C.H., et al, [1993,eng] 48-3594
Development of an arctic ray model. Stotts, S.A., et al, [1994,eng] 48-4064
Distribution functions of the intensity fluctuations of a laser beam in snowfall. Vostretsov, N.A., et al, [1993,eng] 48-2145
Edge diffraction in the vicinity of the tip of a composite wedge. Huang, C.H., et al, [1993,eng] 48-2108
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Electromagnetic wave propagation in saline permafrost. Fedi-ukin, I.V., et al, [1993,eng] 48-381
Extraction of marginal ice zone thickness using gravity wave imagery. Shuchman, R.A., et al, [1994,eng] 48-2810
Flexural waves on arctic data: application of new techniques for S/N enhancement. Barton, C., et al, [1984,eng] 48-3921
Flexural waves on Erebus Glacier Tongue. Squire, V.A., et al, [1994,eng] 48-5174
Gas gun experiments to determine shock wave behavior in snow: methods and data. Johnson, J.B., et al, [1993,eng] 48-1005
Generation of internal waves from floating ice. Bukatov, A.E., et al, [1992,eng] 48-2313
Gravity waves in the antarctic mesosphere. Collins, R.L., et al, [1994,eng] 48-4049
H-polarized scattering from single and multiple elongated cavities. Schiavone, G.A., et al, [1993,eng] 48-2058
Hail formation in a cloud measured by ice absorption index. Aivazian, G.M., [1993,eng] 48-2005
HF atmospheric noise levels in the Canadian Arctic. Lauber, W.R., et al, [1994,eng] 48-5386
High-frequency forward scattering in the Arctic. Sammelmann, G.S., [1993,eng] 48-1374
Hydrothermal implications of radio wave propagation in glaciers. Macheret, IU.IA., et al, [1993,eng. 48-2400
Ice sheet altimeter processing scheme. Bamber, J.L., [1994,eng] 48-4037
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Laterally varying basal conditions beneath Ice Streams B and C, West Antarctica. Atre, S.R., et al, [1993,eng] 48-3577
Light scattering by finite hexagonal crystals arbitrarily oriented in space. Brogniez, G., [1989,eng] 48-1477
Low frequency arctic under-ice reverberation, pt.1. Hayward, T.J., et al, [1993,eng] 48-75
Low-frequency Arctic under-ice reverberation pt.3. Yang, T.C., et al, [1993,eng] 48-43
Marginal ice zone rigidity parameterization from ocean wave refraction. Squire, V.A., [1994,eng] 48-3827
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-2691
Model for the motion and bending of an ice floe in ocean waves. Meylan, M., et al, [1993,eng] 48-4350
Model of elastic wave propagation in frozen media—comparison with experiment. Leclaire, P., et al, [1993,eng] 48-417
New method to obtain 3-D Green's functions for anisotropic solids. Wang, C.Y., et al, [1993,eng] 48-5016
Ocean mixed layers and acoustic pulse propagation in the Greenland Sea. Sutton, P.J., et al, [1993,eng] 48-2023
Ocean wave propagation in an ice field with varying concentration. Squire, V.A., [1993,eng] 48-4351
Polarimetric radar studies of atmospheric ice particles. Vivekanandan, J., et al, [1994,eng] 48-5134
Predictions of radiowave attenuations due to a melting layer of precipitation. Zhang, W., et al, [1994,eng] 48-4645
Pressure ridging effect on Arctic Ocean noise spectra. Greening, M.V., et al, [1994,eng] 48-3143
Propagation of continuum damage in a viscoelastic ice bar. Shin, J.G., et al, [1994,eng] 48-4838
Radar signature of a 2.5-D tunnel. Moran, M.L., et al, [1993,eng] 48-1513
Radar sounding of antarctic ice sheet structure. Fujita, S., et al, [1993,eng] 48-1334
Range errors in global positioning system during ice cloud and snowfall periods. Tranquilla, J.M., et al, [1994,eng] 48-4164
Reassessment of the in-situ dielectric constant of polar firn. Kovacs, A., et al, [1993,eng] 48-3739
Relating arctic ambient noise to thermally induced fracturing of the ice pack. Lewis, J.K., [1994,eng] 48-4065
Response of ice floes to ocean waves. Meylan, M., et al, [1994,eng] 48-2809
Sea ice cover effect on sound wave propagation times. Jin, G.L., et al, [1993,eng] 48-45
Sea ice cracking as an acoustic index of seabed reflectivity. Zakarauskas, P., et al, [1993,eng] 48-5128
Seismic-acoustic sensing of sea ice wave mechanical properties. Xie, Y.B., et al, [1994,eng] 48-4054
Seismological research at Georg von Neumayer Base, pt.2. Eckstaller, A., et al, [1993,eng] 48-4268
Ship waves in a continuously stratified as n with ice cover. Bukatov, A.E., et al, [1993,eng] 48-2462
Snow equation-of-state. Barthel, J.R., [1990,eng] 48-3614
Sound propagation with a linear sound-speed profile over a rough surface. Uscinski, B.J., [1993,eng] 48-1376
Sound scattering from arctic sea ice bottom surfaces. Mourad, P.D., et al, [1993,eng] 48-2024
Sound wave refraction in the frontal zone of the Barents Sea. Kuz'kin, V.M., [1993,eng] 48-4479
Spatial and source level distributions of ice cracking in the Arctic Ocean. Greening, M.V., et al, [1994,eng] 48-3142
Stress-optic effect in ice. Ravi-Chandar, K., et al, [1994,eng] 48-4448
Study on remote sensing models of sea ice thickness by microwave radiometry. Zheng, Q., et al, [1993,eng] 48-3234
Surface sources on floating ice: the flexural ice wave. Lansley, R.M., et al, [1984,eng] 48-3920
Surface wave diffraction at a crack in sheet ice. Marchenko, A.V., [1993,eng] 48-1740
Wave propagation in ice-covered channels. Daly, S.F., [1993,eng] 48-1242

Wave transmission
See [also]: Wave propagation

Waves
See [also]: Elastic waves; Microwaves; Ocean waves; Polarization (waves); Radio waves; Shock waves; Sound waves; Water waves

Weather control
See [also]: Climate control; Cloud seeding; Fog dispersal; Hail prevention; Weather modification

Weather forecasting
Adverse weather test site selection study. Christy, S.R., et al, [1992,eng] **48-4749**
Air pollution and atmospheric environmental effects. Qiu, Q., et al, [1992,chi] **48-1485**
Blizzard of 12-15 March 1993 in the USA and Canada. Brugge, R., [1994,eng] **48-3497**
Climatic mapping of ice loads based on airport weather observations. Makkonen, L., et al, [1993,eng] **48-811**
Comments on "Snow versus rain: looking beyond the 'magic' numbers". Erickson, M.C., et al, [1993,eng] **48-2360**
Computer program for battlefield environment simulation. U.S. Army Corps of Engineers, [1993,eng] **48-786**
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] **48-1853**
Development of a meteorological forecast for snow accumulation on transmission lines. Ito, T., et al, [1993,eng] **48-2836**
Development of a method for predicting snowfall intensity and compacted snow on roads. Funada, H., et al, [1993,jpn] **48-1852**
Development of automatic antenna elevation angle setting at Doppler radar observation. Oi, M., [1992,jpn] **48-3217**
Distributed numerical weather prediction: what lies beyond television's "Volksmeteorologie". Reiter, E.R., [1990,eng] **48-3127**
Estimation of meteorological conditions in mountainous regions for ice accretion. Furuichi, N., et al, [1993,eng] **48-813**
European project COST 309, road weather conditions. Nysten, E., [1993,eng] **48-1203**
Evaluation of a GCM cirrus parameterization using satellite observations. Soden, B.J., et al, [1994,eng] **48-5028**
Examples of radar observations of snowfall in Hokuriku. Yoshino, F., et al, [1989,jpn] **48-667**
Forecasting of snow accretion on power lines. Tanaka, T., et al, [1992,jpn] **48-3163**
Forecasting system for snow and freezing. Masuda, Y., et al, [1986,jpn] **48-20**
Freeze/frost data. Koss, W.J., et al, [1988,eng] **48-4399**
Information system to predict road icing in Japan. Nakamura, T., et al, [1993,jpn] **48-4235**
Lake Ontario Winter Storms (LOWS) project. Reinking, R.F. et al, [1993,eng] **48-1095**
Local estimation of power line icing in Hungary. Nemes, C., et al, [1993,eng] **48-810**
Mathematical model of snowstorm microphysics. Zawadzki, I., et al, [1993,eng] **48-2346**
Mesoscale structure of a severe ice storm. Rauber, R.M., et al, [1994,eng] **48-5437**
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] **48-4231**
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] **48-4229**
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] **48-4230**
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] **48-4241**
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] **48-4232**
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] **48-4228**
Numerical simulation of an icing event during WISP-90. Modica, G.D., et al, [1992,eng] **48-4748**
Ocean modeling in a global ocean observing system. Smith, N.R., [1993,eng] **48-340**
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] **48-1960**
PC-based simulation code for radar polarimetric field applications in meteorology. Czapski, P., et al, [1993,eng] **48-1682**
Polar lows in the Beaufort Sea. Parker, M.N., [1988,eng] **48-4132**
Polar lows over the northeast Greenland Sea. Rasmussen, E.A., et al, [1991,eng] **48-4725**
Prediction of daily snowfall depth obtained from neuro computing method. Amenomori, M., et al, [1993,jpn] **48-3179**
Prediction of snow storms and snow accretion on power lines. Sasyo, Y., et al, [1993,jpn] **48-3168**
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] **48-3211**
Rain-dominated winter storms in California's Sierra Nevada. McGurk, B.J., et al, [1993,eng] **48-2929**
Recent developments of the geographic snow information system. Granberg, H.B., et al, [1993,eng] **48-756**
Refining de-icing tactics.[1994,eng] **48-3237**
Remote sensing for hydrology—progress and prospects. Kuittinen, R., [1992,eng] **48-4123**
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] **48-2467**
Research trends in snow and roads. Hokkaido Development Bureau, [1987,jpn] **48-276**
Road freezing countermeasures in Europe. Wada, J., [1987,jpn] **48-547**
Road weather data collection instruments. Ueda, S., [1986,jpn] **48-257**
Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] **48-2091**
Science of snow and ice (12). Inoue, M., [1988,jpn] **48-654**
Secrecy under the ice frustrates global warming studies.[1990,eng] **48-1503**
Simulation of the modern arctic climate by the NCAR CCM1. Bromwich, D.H., et al, [1994,eng] **48-5132**
Snow cloud observations from MOS-1 data. Koike, T., et al, [1990,jpn] **48-4874**
Snow-band formation during an aircraft accident. Rasmussen, R.M., et al, [1993,eng] **48-2358**
Snowdrift countermeasures. Sato, S., [1987,jpn] **48-546**
Snowfall forecasting system in Sapporo City. Shibuya, K., [1989,jpn] **48-670**
Snowstorms over the Puget Sound lowlands. Ferber, G.K., et al, [1993,eng] **48-2359**
Spatial variation of extreme values in the case of freezing rain icing. Laflamme, J., [1993,eng] **48-812**
Stratosphere-troposphere data assimilation system. Swinbank, R., et al, [1994,eng] **48-4067**
Study on snowdrift countermeasures in the Shonai region. Sawada, K., et al, [1987,jpn] **48-545**
Study on winter road management methods using forecast reports. Wada, J., et al, [1989,jpn] **48-668**
Summary of the road report system of the Hokuriku Regional Construction Bureau. Hokuriku Regional Construction Bureau, [1989,jpn] **48-669**
Synoptic estimation of power line icing in Hungary. Domonkos, P., et al, [1993,eng] **48-809**
Use of vorticity parameters to forecast winter precipitation. Moore, J.T., et al, [1993,eng] **48-313**
Weather forecasting and road information. Mizuma, M., et al, [1986,jpn] **48-256**
Weather forecasts and information on road conditions—MINSALT. Axelson, L., [1993,eng] **48-1202**
Weather model for indoor thermal calculations. Gabrielsson, J., et al, [1994,eng] **48-3845**
Weather observation and its use for road management. Takeuchi, M., [1986,jpn] **48-31**
White Spot Program in Denmark. Kasai, A., [1987,jpn] **48-549**
See [also]: Frost forecasting; Ice forecasting; Long range forecasting

Weather maps
See [also]: Meteorological charts

Weather modification
Cloud system supercooled liquid water structure. Rauber, R.M., et al, [1987,eng] **48-3076**
Detection of liquid water content in supercooled clouds. Sassen, K., et al, [1993,eng] **48-135**
Effects of cloud seeding in West Texas: additional results and new insights. Rosenfeld, D., et al, [1993,eng] **48-2370**
Further analyses of the Climax cloud-seeding experiments. Rangno, A.L., et al, [1993,eng] **48-2369**
Ice crystal formation by supersonic flow. Huang, S.H., et al, [1993,eng] **48-2099**
Mitigation of ozone hole depletion by hydrocarbon injection. Elliott, S., et al, [1994,eng] **48-3147**
Mountain snowfall enhancement by cloud seeding in Colorado. Super, A.B., et al, [1993,eng] **48-1470**
See [also]: Climate control; Cloud seeding; Fog dispersal; Hail prevention

Weather observations
Aircraft icing. Lansford, H., [1990,eng] **48-1921**
Atmospheric circulation and weather and climate background in the Wudaoliang region. Jiang, H., et al, [1992,chi] **48-1484**
Conception of snow information network system in Yamagata Prefecture. Matsuda, M., et al, [1993,jpn] **48-1853**
Deep freeze causes havoc.[1994,eng] **48-2884**
Development of automatic antenna elevation angle setting at Doppler radar observation. Oi, M., [1992,jpn] **48-3217**
Ice spikes—can you explain them. Perry, H.F., [1993,eng] **48-316**
Little Ice Age on Hudson Bay, 1814-1821. Wilson, C., [1985,eng] **48-2723**
Mesoscale atmosphere icing event, March 1991. Bates, R.E., et al, [1993,eng] **48-2964**
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] **48-1679**
Snow and avalanches in the Swiss Alps, Winter 1991-92.[1993,ger] **48-1378**
Temperature extremes. Hickcox, D.H., [1994,eng] **48-3325**
Unusual ice formations. Bjarbaek, G., [1994,eng] **48-4769**
Winds at the North Pole. Johnson, M., et al, [1993,eng] **48-2218**
Winter ground gremlins. Cox, B., [1990,eng] **48-1920**
Yellow snow over the Alps and subarctic from dust storm in Africa, March 1991. Franzén, L.G., et al, [1994,eng] **48-5116**

Weather stations
Antarctic automatic weather station data for the calendar year 1991. Keller, L.M., et al, [1993,eng] **48-1662**
Antarctic automatic weather station data for the calendar year 1992. Keller, L.M., et al, [1994,eng] **48-4131**
International Arctic Buoy Project.[1993,eng] **48-3320**
Meteorological data from weather stations on mountain glaciers. Escher-Vetter, H., et al, [1986,ger] **48-612**
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.7. Watanabe, O., ed, NIPR Symposium on Polar Meteorology and Glaciology, 15th, Tokyo, July 8-9, 1992, [1993,eng] **48-1862**
Proceedings. International Tagung für Alpine Meteorologie, 19th, Rauris, Austria, Sep. 1-6, 1986, [1986,eng] **48-608**
Seawater battery for ocean buoys. Rao, B.M.L., et al, [1992,eng] **48-1603**
Selection of the winter representative precipitation station within a basin. Takenouchi, T., [1993,eng] **48-2973**
Station climatic summaries: China, the former USSR, and Mongolia.[1994,eng] **48-4754**
Temperature conditions in Iceland 1901-1990. Einarsson, M.Á., [1991,eng] **48-5291**
Tropospheric temperature trends in the Arctic: 1958-1986. Kahl, J.D., et al, [1993,eng] **48-191**

Weathering
Aqueous geochemistry on early Mars. Schaefer, M.W., [1993,eng] **48-1100**
Bedrock weathering on Canadian plateaus. Bédard, P., [1993,eng] **48-3130**
Conceptual model of solute acquisition by alpine glacial meltwaters. Tranter, M., et al, [1993,eng] **48-3583**
Dating of a New Zealand moraine sequence. Ricker, K.E., et al, [1993,eng] **48-3131**
Environmental effects of crude oil spills in interior AK. Collins, C.M., et al, [1994,eng] **48-5115**
Geocryological properties of weathering crusts in Yakutia. Vasil'ev, A.A., [1993,eng] **48-2542**
Geomorphologic analysis of Pleistocene glacial sequences. Berry, M.E., [1994,eng] **48-5064**
Hydrogeochemistry of an alpine proglacial stream. Gurnell, A.M., et al, [1994,eng] **48-3258**
Laboratory simulation of limestone dissolution. Sletten, R.S., [1993,eng] **48-458**
Movement of trace elements during residence in the antarctic ice: a laboratory simulation. Strait, M.M., [1991,eng] **48-4866**
Natural self cleaning of oil spills from arctic shorelines. Sveum, P., et al, [1993,eng] **48-3721**
Norwegian ice sheet thickness inferred from bedrock weathering. McCarroll, D., et al, [1993,eng] **48-1011**
Paleoecology of Quebec and northern Labrador. Ives, J.D., et al, [1976,eng] **48-3295**
Rock moisture data from Livingston I. Hall, K., [1993,eng] **48-5051**
Rock temperatures from Livingston Island (maritime Antarctic): implications for cryogenic weathering. Hall, K.J., [1993,eng] **48-390**
Sør Rondane Mountains Late Cenozoic glacial history. Moriwaki, K., et al, [1992,eng] **48-920**
Stratigraphy of glaciated terrain in Montana. Hall, R.D., et al, [1983,eng] **48-3340**
Surface water geochemistry of a Sierra Nevada watershed. Williams, M.W., et al, [1993,eng] **48-2329**
Talus cliff burial in a Coloradan alpine setting. Olyphant, G.A., [1983,eng] **48-3342**
Talus surface properties in the New Zealand Alps. Whitehouse, I.E., et al, [1983,eng] **48-3341**
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] **48-2105**
See [also]: Frost weathering; Permafrost weathering

Weatherproofing
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] **48-3962**
Standard test for determining air change by a tracer gas. American Society for Testing and Materials, [1993,eng] **48-2700**

Wedges
See [also]: Ice wedges

Welding
Arctic pipeline construction in the Soviet Union—part 2. Ivantsov, O.M., [1978,eng] **48-1117**
Characteristics of the structural formation of weld seams, applied by an irregular fusion method. Moskvitina, L.V., et al, [1990,rus] **48-54**
Development of a steel grade for arctic applications. Lafrance, M., et al, [1994,eng] **48-3981**
Effect of explosion forming on the cold resistance of weld samples with crack-like incomplete fusion. Borisov, V.E., et al, [1990,rus] **48-59**
International Soviet-Scandinavian Seminar: machines, materials and structures in arctic conditions; abstracts. Cherskii, I.N., ed, [1991,rus] **48-1910**
Problems in welding of structures used in polar regions of Russia. Larionov, V.P., et al, [1994,eng] **48-3978**
Welding of quenched and tempered steel at low temperatures. Lagerqvist, O., et al, [1994,eng] **48-3982**

Well casings
Casing materials for ground water monitoring wells. Parker, L.V., et al, [1994,eng] **48-5413**
Dynamic study of common well screen materials. Hewitt, A.D., [1993,eng] **48-719**
Dynamic study of common well screen materials. Hewitt, A.D., [1994,eng] **48-2453**
Experimental research on deformation in model of artificially frozen wall. Wu, Z.W., et al, [1992,chi] **48-1416**
Modeling organic contaminant partitioning in groundwater. Leggett, D.C., et al, [1994,eng] **48-4953**

Well drilling
See [also]: Drilling

Well logging
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102
Behavior of a deep hole drilled in ice at Vostok Station. Chistiakov, V.K., et al, [1994,eng] 48-5352
Borehole logging device at Dome F, Antarctica. Naruse, R., et al, [1994,eng] 48-5351
Geological, geochemical, and operational summary, Aurora Well. Paul, L.E., et al, [1994,eng] 48-3329
Geophysical methods of cryology ecological monitoring. Sedov, B.M., et al, [1993,eng] 48-5235
Map of permafrost depth, North Slope, AK. Collett, T.S., et al, [1989,eng] 48-2505
New short borehole logging tool. Hansen, B.L., et al, [1994,eng] 48-5348
Proceedings. International Workshop on Ice Drilling Technology, 4th, Tokyo, April, 20-23, 1993, [1994,eng] 48-5324
Thermal modeling of ice cores and boreholes via the finite element technique. Das, D.K., et al, [1994,eng] 48-5353
Unfrozen, high-salinity intervals within ice-bearing permafrost, North Slope of Alaska. Collett, T.S., et al, [1993,eng] 48-366
Vertical strain measurement in core holes. Raymond, C.F., et al, [1994,eng] 48-5350

Wells
Analysis of an aquifer test at Saint Paul Island, Pribilof Islands, Alaska. Munter, J.A., et al, [1994,eng] 48-5102
Design of an antarctic water well. Lunardini, V.J., et al, [1993,eng] 48-873
Ground-water quality data collected from 30 wells in July 1991, west Nikiski, Alaska. Maurer, M.A., [1993,eng] 48-1138
Roof snow-melting system utilizing natural energy. Sawase, K., [1992,eng] 48-2601
Trichloroethylene contamination of ground water at CRREL. Ecology and Environment, Inc., Arlington, VA, [1992,eng] 48-318

See [also]: Oil wells

West Greenland
Quaternary marine stratigraphy and geochronology in central West Greenland. Bennike, O., et al, [1994,eng] 48-4991

Wet snow
Development of a meteorological forecast for snow accumulation on transmission lines. Ito, T., et al, [1993,eng] 48-2836
Discrimination of a wet snow cover using passive microwave satellite data. Walker, A.E., et al, [1993,eng] 48-1340
Effect of wet snow on the null-reference ILS system. Walton, E.K., [1993,eng] 48-1619
Isotopic fractionation during grain coarsening of wet snow. Nakawo, M., et al, [1993,eng] 48-2840
Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106
Mapping of snow cover by ERS-1 SAR. Solberg, R., [1993,eng] 48-1717
Metamorphism in a perennial snow patch. Kawashima, K., et al, [1993,eng] 48-2838
Method to estimate icing loads on overhead lines. Pezard, J., [1993,eng] 48-831
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] 48-834
Prediction of snow storms and snow accretion on power lines. Sasyo, Y., et al, [1993,jpn] 48-3168
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Retrieval of storm microphysics using K(a) band radar observations. Raghavan, R., et al, [1993,eng] 48-1679
Snowmelt-induced slushflows, Ellesmere Island, N.W.T., Canada. Hardy, D.R., [1993,eng] 48-2972
Wet snow models for estimating snow load on power lines. Sakamoto, Y., et al, [1993,eng] 48-830

See [also]: Slush

Wetlands
1990 temperature and precipitation during Northern Wetlands Study. Mortsch, L.D., [1994,eng] 48-4602
Airborne flux measurements of CO_2, sensible, and latent heat over the Hudson Bay lowland. Desjardins, R.L., et al, [1994,eng] 48-4611
Alaska North Slope oil-field restoration research strategy. Wyant, J.G., et al, [1992,eng] 48-4893
Analytical method for white phosphorus residues in munitions-contaminated sediments. Walsh, M.E., et al, [1993,eng] 48-1526
Arctic Boundary Layer Expedition (ABLE-3B): July-August 1990. Harriss, R.C., et al, [1994,eng] 48-4618
Assessment of white phosphorus storage in wetlands within artillery impact areas. Simmers, J.W., et al, [1993,eng] 48-3033
Atmospheric exchange affects Canadian wetlands. Bachmeier, A.S., et al, [1994,eng] 48-4629
Biomass burning effects on wetland hydrocarbon concentrations. Blake, D.R., et al, [1994,eng] 48-4623
Boundary layer chemical flux over Canadian wetlands. Ritter, J.A., et al, [1994,eng] 48-4621
Carbon trace gas fluxes along a successional gradient in the Hudson Bay lowland. Klinger, L.F., et al, [1994,eng] 48-4605
CO_2 exchange in the Hudson Bay lowlands. Whiting, G.J., [1994,eng] 48-4608
Cyclic permafrost development in Canadian peatlands. Zoltai, S.C., [1993,eng] 48-943
Ecosystem and physiological controls over methane production in northern wetlands. Valentine, D.W., et al, [1994,eng] 48-4612
Enhancement of acidic gases in biomass burning impacted air masses over Canada. Lefer, B.L., et al, [1994,eng] 48-4624
Exchange of nitrous oxide within the Hudson Bay lowland. Schiller, C.L., et al, [1994,eng] 48-4613
Fast preparation and more accurate utilization of the peat production area. Leiviskä, V., [1991,fin] 48-3678
Flux of natural gas from wetland ponds to the atmosphere. Hamilton, J.D., et al, [1994,eng] 48-4606
Formation characteristics of frozen-area bogs in China. Zhang, Z.Y., [1993,eng] 48-501
Influence of temperature and water table on wetland emissions. Moore, T.R., et al, [1993,eng] 48-3785
Material fluxes across wetland ecotones in northern landscapes. Johnston, C.A., [1993,eng] 48-1610
Methane as a source for atmospheric CO2 increases. Loehle, C., [1993,eng] 48-635
Methane emission from arctic tundra. Christensen, T.R., [1993,eng] 48-1814
Methane emissions from wetlands, southern Hudson Bay lowland. Moore, T.R., et al, [1994,eng] 48-4604
Methane flux from drained northern peatlands. Roulet, N.T., et al, [1993,eng] 48-2547
Methane flux:water table relations in northern wetlands. Moore, T.R., et al, [1993,eng] 48-210
Modelling evaporation from wetland tundra. Wessel, D.A., et al, [1994,eng] 48-4650
NOAA coastal land cover classification system. Klemas, V.V., et al, [1993,eng] 48-1097
Northern Wetlands Study (NOWES): an overview. Glooschenko, W.A., et al, [1994,eng] 48-4601
On surface energy balance over the northern wetlands, pt.2. Guo, Y., et al, [1994,eng] 48-4616
Possible effects of climatic warming on arctic tundra ecosystems. Billings, W.D., et al, [1992,eng] 48-1262
Radon 222 tracing of boreal forest gas exchange. Ussler, W., III, et al, [1994,eng] 48-4639
Role of the Hudson Bay lowland as a source of atmospheric methane. Roulet, N.T., et al, [1994,eng] 48-4603
Runoff generation in a high boreal wetland in northern Canada. Gibson, J.J., et al, [1993,eng] 48-1159
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Season of heat, water vapor, total hydrocarbon, and ozone fluxes at a subarctic fen. Moore, K.E., et al, [1994,eng] 48-4638
Seasonal variations of surface layer wetland hydrocarbons. Jobson, B.T., et al, [1994,eng] 48-4614
Soil decomposition in Marion I. tundra. Smith, V.R., et al, [1993,eng] 48-1892
Sudden drainage of a thaw lake on the Alaskan arctic coastal plain. Brewer, M.C., et al, [1993,eng] 48-358
Surface energy balance over northern wetlands, pt.1. Guo, Y., et al, [1994,eng] 48-4615
Survey of soil disturbances at an abandoned arctic site. Forbes, B.C., [1993,eng] 48-382
Temporal and spatial variability of methane emissions from Alaskan arctic tundra. Morrissey, L.A., [1992,eng] 48-3525
Tower-based measurements of CO_2 wetland fluxes. Neumann, H.H., et al, [1994,eng] 48-4609
Use of snow capture for land rehabilitation in arctic oilfields. Jorgenson, M.T., et al, [1993,eng] 48-408
Vegetation of coastal marshes near Juneau, Alaska. Stone, C.S., [1993,eng] 48-2464
Wetland energy budget measurements using Bowen ratio techniques. Den Hartog, G., et al, [1994,eng] 48-4610
Wetland methane flux measured with a tower-mounted laser. Edwards, G.C., et al, [1994,eng] 48-4607
White phosphorus contamination of salt marsh pond sediments at Eagle River Flats, Alaska. Racine, C.H., et al, [1993,eng] 48-3792

Wettability
Endothermal wetting effect and ice nucleation mechanisms of silver iodide. Smorodin, V.E., [1994,eng] 48-4717
Ice adhesion to rubber materials. Andersson, L.O., et al, [1994,eng] 48-4252
Surface melting of ice induced by hydrocarbon films. Bar-Ziv, R., et al, [1993,eng] 48-5020

Wharves
Oceanographic effects of Beaufort Sea causeways. Colonell, J.M., [1993,eng] 48-792
Oceanographic effects of the Endicott Causeway. Morehead, M.D., [1993,eng] 48-795

See [also]: Docks; Ice wharves; Piers

Wheels

See [also]: Vehicle wheels

Wind chill
Simulation of the effect of wind on clothing by measurements and calculations. Anttonen, H., et al, [1993,eng] 48-4902

Wind direction
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Antarctic automatic weather station data for the calendar year 1991. Keller, L.M., et al, [1993,eng] 48-1662
Climatic atmospheric outflow at the rim of the Antarctic continent. Dalu, G.A., et al, [1993,eng] 48-195
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
Diagnostic analysis of the Presidents' Day storm of February 1979. Bosart, L.F., et al, [1984,eng] 48-3074
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] 48-202
Laboratory simulation of atmospheric motions in the vicinity of Antarctica. Chen, R.R., et al, [1993,eng] 48-2146
Numerical simulation of West Antarctic katabatic winds. Bromwich, D.H., et al, [1994,eng] 48-5309
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
Sea breezes and advective effects in southwest James Bay. McKendry, I., et al, [1994,eng] 48-4617
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Simulation of the atmospheric circulation near the Greenland ice sheet margin. Meesters, A.G.C.A., et al, [1994,eng] 48-3516
Structure and wind transport of seasonal snow on the arctic slope of Alaska. Benson, C.S., et al, [1993,eng] 48-2864
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847
Third Stokes parameter emission from a periodic water surface. Johnson, J.T., et al, [1993,eng] 48-2109
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Winds at the North Pole. Johnson, M., et al, [1993,eng] 48-2218

Wind erosion
Characteristics of the operation of a gas pipeline in eolian sands in central Yakutia. Konstantinov, I.P., et al, [1992,rus] 48-4788
Global warming implications for eolian processes in permafrost. Carter, L.D., [1993,eng] 48-363
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Review of aeolian transport processes in cold environments. McKenna Neuman, C., [1993,eng] 48-691
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938
Wind-blown particles as weathering agents? An antarctic example. Hall, K.J., [1989,eng] 48-2105
Winter-associated changes in dry-soil aggregation as influenced by management. Layton, J.B., et al, [1993,eng] 48-3240

Wind factors
Air content of the Vostok ice core: climatic parameters. Martinerie, P., et al, [1994,eng] 48-4850
Aircraft survey of Hurricane Norbert pt.3. Gamache, J.F., et al, [1993,eng] 48-2465
Ambient noise characteristics of the northwestern Barents Sea. Bourke, R.H., et al, [1993,eng] 48-2815
Application of an explicit microphysics mesoscale model to a regional icing event. Modica, G.D., et al, [1994,eng] 48-2326
Arctic sea ice snow cover/boundary layer dynamics. Serreze, M.C., et al, [1993,eng] 48-1344
Areal investigation of drifting snow on Tsugaru Plain, Japan. Higashiura, M., et al, [1993,eng] 48-2844
Assessing the risk of snow and wind damage from tree physical characteristics. Valinger, E., et al, [1993,eng] 48-1651
Case study of snowstorm gusts and blowing/drifting snow. Maki, M., et al, [1993,eng] 48-2842
Chemical characteristics of snow in the region along the Sea of Japan. Satow, K., [1993,eng] 48-2858
Contrasts in arctic shelf sea ice regimes. Reimnitz, E., et al, [1994,eng] 48-5634
Cryogenic structures in Patagonia. Vogt, T., et al, [1994,eng] 48-4827
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Effect of density variations during rime growth on overhead transmission line conductors. Skelton, P.L.I., et al, [1994,eng] 48-5109
Effect of soil freezing on particulate resuspension. Duce, S.W., et al, [1988,eng] 48-3919
Effects of wind on needle desiccation of timberline conifers. Hadley, J.L., et al, [1983,eng] 48-3346
Energy budget comparison of snowmelt rates in a deciduous forest and an open site. Ohta, T., et al, [1993,eng] 48-2827
Estimation of wind drift parameters of sea ice in Okhotsk coastal zone. Kalinin, E.N., et al, [1993,eng] 48-176
Estimation of wind-induced drift parameters for the Okhotsk Sea coastal zone. Truskov, P.A., et al, [1993,eng] 48-1048
Fluid forces acting on and the velocity of ice floes. Enoki, K., et al, [1993,eng] 48-4356
Formation of a haline shelf front in wintertime in an ice- covered arctic sea. Melling, H., [1993,eng] 48-1616
Frazil ice production in coastal polynyas. Ushio, S., et al, [1993,eng] 48-2357
Greenland ice sheet energy balance and climate change. Meesters, A., [1994,eng] 48-4477
Greenland Sea ambient acoustic measurements. Lynch, J.F., et al, [1993,eng] 48-44
Hindcasting iceberg drift using current profiles and winds. Smith, S.D., [1993,eng] 48-2732

Horizontally ribbed dome for habitation enclosure. Berg, R., et al, [1992,eng] 48-1731
Ice control in northern harbors. Saeki, H., [1992,eng] 48-1534
Ice drift in the Weddell Sea in 1990-1991 as tracked by a satellite buoy. Vihma, T., et al, [1993,eng] 48-225
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] 48-615
Ice, temperature and oxygen regimes of Schirmacher Ponds in summer 1983-1984. Loopmann, A., [1988,eng] 48-2551
In situ burning of oil in ice leads. Brown, H.M., et al, [1986,eng] 48-4173
Influence of a Beaufort Sea storm surge on channel levels in the Mackenzie Delta. Marsh, P., et al, [1993,eng] 48-1832
Influence of the wind on snow-cover. Diunin, A.K., [1990,eng] 48-3071
Isentropic mixing in the antarctic polar vortex. Bowman, K.P., [1993,eng] 48-2474
Katabatic wind simulation in Terra Nova Bay area. Gallée, H., et al, [1993,eng] 48-2139
Locating edge of drift ice in the Sea of Azov. Siniurin, IU.N., [1992,eng] 48-1245
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] 48-4232
Meteorological experiment in the melting zone of the Greenland ice sheet. Oerlemans, J., et al, [1993,eng] 48-2059
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] 48-4228
Microphysical modeling of cirrus. 1. Comparison with 1986 FIRE IFO measurements. Jensen, E.J., et al, [1994,eng] 48-4847
Microphysical modeling of cirrus. 2. Sensitivity studies. Jensen, E.J., et al, [1994,eng] 48-4848
Need for removing biases from rain and snowgage measurements. Legates, D.R., [1993,eng] 48-1804
Numerical simulations of wind-driven flows in the antarctic coastal zones. Fettweis, M., et al, [1993,eng] 48-2138
Ocean currents induced by wind and waves. Melsom, A., [1992,eng] 48-4764
Oceanography of the Bransfield Strait from ERS-1 products. García, M.A., et al, [1994,eng] 48-3470
Paleoclimatic implications of non-sea salt polar firn deposition. Cunningham, J., et al, [1993,eng] 48-3908
Permafrost desertification in China. Huang, Y.Z., et al, [1993,eng] 48-401
Physical oceanography of the northeast Chukchi Sea. Weingartner, T.J., [1993,eng] 48-794
Physical processes in antarctic landfast sea ice. Crocker, G.B., [1988,eng] 48-3819
Precipitation field forecasting over the antarctic region. Arpe, K., et al, [1993,eng] 48-200
Real time oil spill forecasting during MIZ '93. Reed, M., et al, [1994,eng] 48-4922
Relic permafrost landforms related to wind factors. Wayne, W.J., et al, [1993,eng] 48-481
Relict iceberg marks near Montreal, Quebec. Delage, M., et al, [1993,fre] 48-1147
Remote-sensing view of a freezing-rain storm. Martner, B.E., et al, [1993,eng] 48-2467
Response of lead patterns in the Beaufort Sea to storm-scale wind forcing. Walter, B.A., et al, [1993,eng] 48-1326
Sea ice and circulation in the Weddell Sea. Petit, B., et al, [1993,eng] 48-2142
Simulation of snow damage in pine forests. Valinger, E., et al, [1994,eng] 48-5144
Simulation of the effect of wind on clothing by m asurements and calculations. Anttonen, H., et al, [1993,eng] 48-4902
Snow accretion on horizontal rotating conductor rods. Poots, G., et al, [1994,eng] 48-5060
Snowfall into a forest and clearing. Schmidt, R.A., et al, [1989,eng] 48-1746
Snowfall variations in the Italian Alps. Latini, A., [1986,ita] 48-616
Structures of the vegetation cover of Wrangel Island as a reflection of the landscape setting. Kholod, S.S., [1993,rus] 48-4226
Synoptic aspects of antarctic mesocyclones. Carleton, A.M., et al, [1993,eng] 48-198
Thermal regime of a permafrost body at Mont du Lac des Cygnes, Quebec. Allard, M., et al, [1990,eng] 48-1521
Three dimensional numerical simulation of snowdrift. Sato, T., et al, [1993,eng] 48-1786
Vertical sounding of the air layer above the ice of Vernagtferner (Luziver 1983). Weber, M., et al, [1986,ger] 48-611
Western Baltic sea ice season severity index, pt.1. Koslowski, G., et al, [1994,eng] 48-3135
Wind-induced heat transfer through permeable clothing. Kind, R.J., et al, [1993,eng] 48-874

Wind (meteorology)
Accuracy of the isentropic trajectories calculated for the EASOE campaign. Knudsen, B.M., et al, [1994,eng] 48-5440
Analysis of atmospheric lee waves near Hopen. Vachon, P.W., et al, [1994,eng] 48-3477
Antarctic climate of the UKMO Unified Model. Connolley, W.M., et al, [1994,eng] 48-3041
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
High latitude atmospheric circulation observed with the ERS-1. Lachlan-Cope, T.A., et al, [1994,eng] 48-3476
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Intrusions into the lower stratospheric arctic vortex during the winter of 1991-1992. Plumb, R.A., et al, [1994,eng] 48-4595
Katabatic surges across the Ross Ice Shelf. Bromwich, D.H., et al, [1993,eng] 48-201
Katabatic wind simulation around Terra Nova Bay. Gallée, H., et al, [1994,eng] 48-4066
Katabatic wind variability over East Antarctica. Yasunari, T., et al, [1993,eng] 48-202
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Observed katabatic flow at the edge of the Greenland ice sheet during GIMEX-91. Van den Broeke, M.R., et al, [1994,eng] 48-3512
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] 48-1960
Radar echo patterns related to land breeze intensity. Satoh, S., et al, [1992,jpn] 48-3211
Three-dimensional kinematic wind field and evolution of a band cloud in Ishikari Bay, Hokkaido. Ushiyama, T., et al, [1992,jpn] 48-3212
Three-dimensional simulation of cloud street development during a cold air outbreak. Chlond, A., [1992,eng] 48-3072
See [also]: Avalanche wind

Wind power generation
Modelling of rime icing of wind turbines. Finstad, K.J., et al, [1993,eng] 48-822
Use of renewable energy in selected antarctic applications. Bower, W.I., [1993,eng] 48-329

Wind pressure
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Computer simulation of wind and snow around buildings. Nielsen, A., et al, [1994,eng] 48-3881
Effect of horizontal and torsional coupling on vertical galloping. Jones, K.F., [1993,eng] 48-832
Iceload investigations on insulators and aerial warning balls for overhead lines. Greisert, K., et al, [1993,eng] 48-833
Icing-related tower failures in the U.S.A. and Fenno-Scandinavia. Sundin, E., et al, [1993,eng] 48-854
Installation of a protected membrane roof at the windiest place on earth. Tobiasson, W., et al, [1994,eng] 48-3962
Meteorological evaluation of Bradley Lake hydroelectric project 115kV transmission line route. Richmond, M.C., [1985,eng] 48-4231
Meteorological evaluation of the proposed Alaska transmission line routes. Gouze, S.C., et al, [1982,eng] 48-4229
Meteorological evaluation of the proposed Palmer to Glennallen transmission line route. Gouze, S.C., et al, [1982,eng] 48-4230
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Tyee Power Plant to Wrangell. Richmond, M.C., [1992,eng] 48-4241
Meteorological evaluation of Tyee Lake hydroelectric project transmission line route Wrangell to Petersburg. Richmond, M.C., [1991,eng] 48-4232
Meteorological hindcast study for Alaska Power Authority Anchorage Fairbanks Intertie Project. Northern Technical Services, [1980,eng] 48-4228
Microscale meteorological causes of power line failure. McCormick, T., et al, [1993,eng] 48-834
Proceedings. IWAIS '93. International Workshop on the Atmospheric Icing of Structures, 6th, Budapest, Sep. 20-23, 1993, [1993,eng] 48-807
Proposed field deployment program for monitoring icing events. Goodwin, E.J., et al, [1993,eng] 48-835
Results from full scale measuring of ice and wind loads on a high mast in Sweden. Fahleson, C., [1993,eng] 48-853
Wind and ice load monitoring on a test line. Haldar, A.K., et al, [1993,eng] 48-839
Wind speed effect on transmission line icing. Csomor, M., et al, [1993,eng] 48-815

Wind tunnels
Aerodynamic effects of aircraft deicing/anti-icing fluids. Zierten, T.A., et al, [1991,eng] 48-3695
Aerodynamic effects of de/anti-icing fluids. Carbonaro, M., [1991,eng] 48-3694
Aerodynamic effects of leading-edge ice accretion. Valarezo, W.O., et al, [1993,eng] 48-5027
Aggregation of snow crystals in the early growth stage. Takahashi, T., et al, [1992,jpn] 48-3202
Anti-icing system results on a NASA 0012 airfoil. Al-Khalil, K.M., et al, [1993,eng] 48-4883
Boeing Research Aerodynamic/Icing Tunnel capabilities and calibration. Cain, G.E., et al, [1994,eng] 48-3108
Close-up analysis of aircraft ice accretion. Hansman, R.J., Jr., et al, [1993,eng] 48-4885
Development of new low lift snow-retardant insulated wire for overhead distribution line. Uchida, S., et al, [1993,eng] 48-1827
Experiments of snow drift around the snow fences with model snow. Shirono, K., [1993,jpn] 48-1971
Flow field on a wing with glaze ice accretion. Khodadoust, A., [1993,eng] 48-3565
Glycol ice protection system on a general aviation airfoil. Kohlman, D.L., et al, [1981,eng] 48-1142
Ice sample heat transfer in a wind tunnel. Lambrinos, G., et al, [1994,fre] 48-2574
Ice shape and performance for a multi-element airfoil. Berkowitz, B.M., et al, [1991,eng] 48-4859
Ice thickness measurement system for the Icing Research Tunnel calibration. Gibson, T.L., et al, [1993,eng] 48-4889
Icing studies in an aerospace altitude test facility. Osborn, A.R., et al, [1991,eng] 48-4736
Laboratory study of static charging by fracture in ice growing by riming. Avila, E.E., et al, [1994,eng] 48-4531
Low power deicer tests on a swept inlet component. Bond, T.H., et al, [1993,eng] 48-4880
Model rotor icing tests in the NASA Lewis Icing Research Tunnel. Flemming, R.J., et al, [1991,eng] 48-3688
Overview of shed ice impact in the NASA Lewis Icing Research Tunnel. Britton, R.K., et al, [1993,eng] 48-4887
Snowdrift modeling in the CRREL wind tunnel. Haehnel, R.B., et al, [1993,eng] 48-2938
Surface roughness due to residual ice in the use of low power deicing systems. Shin, J.W., et al, [1993,eng] 48-4881
Wind tunnel test for snowbreak forests along a highway. Yoshizawa, M., et al, [1993,jpn] 48-1972
Wing-propeller performance degradation. Wickens, R.H., et al, [1991,eng] 48-3690

Wind velocity
Antarctic automatic weather station data for the calendar year 1991. Keller, L.M., et al, [1993,eng] 48-1662
Antarctic automatic weather station data for the calendar year 1992. Keller, L.M., et al, [1994,eng] 48-4131
Arctic geostrophic drag coefficients from drift station data. Overland, J.E., et al, [1994,eng] 48-3136
Atmospheric boundary layer and flow parallel to the ice edge. Gobel, T.M., [1990,eng] 48-3665
Calculation of wind currents in the edge zone of a sea ice sheet. Marchenko, A.V., [1993,eng] 48-926
Control of near-surface winds over an antarctic ice shelf. King, J.C., [1993,eng] 48-194
Ice overloads and wind at Mt. Capellino, Italy. Flocchini, G., et al, [1986,eng] 48-615
Improved gauge for winter precipitation measurements. Wiesinger, T., et al, [1993,eng] 48-2855
Influence of wind direction on ice-edge boundary layer structure. Glendening, J.W., [1994,eng] 48-4051
Numerical study of the diurnal variation of the Adélie Land katabatic wind regime. Parish, T.R., et al, [1993,eng] 48-193
Orographic microbursts in a severe winter windstorm. Tucker, Z.A., [1993,eng] 48-1960
Seasat observations of the antarctic ice sheet. Ledroit, M., et al, [1993,eng] 48-2401
Simulated climatic changes: results of the COHMAP climate-model experiments. Kutzbach, J.E., et al, [1993,eng] 48-2977
Structures of snow cloud in dry-snow avalanches. Nishimura, K., et al, [1993,eng] 48-2847

Windbreaks
Design and use of living snow fences in North America. Shaw, D.L., [1988,eng] 48-1736
Snow distribution on crop fields. Scholten, H., [1988,eng] 48-1737

Windows
Aircraft window defroster. Mukherjee, A., [1990,eng] 48-1874
Anti-frost system for a windshield of a motor vehicle. Tachimori, T., et al, [1990,eng] 48-2199
Anti-frost system for motor vehicle windshield utilizing saturated steam calculator. Takada, H., [1991,eng] 48-2228
Electrically heatable windshield. Osada, K., et al, [1991,eng] 48-1733
Electrically heated window for vehicle having at least three heatable zones. Forr, J.P., et al, [1993,eng] 48-4429
Heat engineering and soundproofing qualities of multi-storied enclosed houses. Khlevchuk, V.R., et al, [1979,rus] 48-1289
Heat transfer in translucent enclosed structures. Drozdov, V.A., et al, [1986,rus] 48-1288
Heated windshield wiper blade and holder. Meltzer, E.A., et al, [1989,eng] 48-1873
Heated wiper blade using conductive elastomer. Basheer, R.A., et al, [1993,eng] 48-1652
Melting windshield ice.[1994,eng] 48-3616
Transparent article having high visible transmittance. Jacobson, D.V., et al, [1988,eng] 48-4271
Windscreen deicing system for vehicle. Canitrot, D., et al, [1990,eng] 48-4421
Wiper motor driving device for automotive vehicles. Nishikawa, I., [1990,eng] 48-4958

Winter
Climatic classification for citrus winter survival in China. Huang, S.B., [1991,eng] 48-5321
Surface climate variations over the North Atlantic Ocean during winter: 1900-1989. Deser, C., et al, [1993,eng] 48-1023

Typification of winters according to the snow accumulation regime in the example of Zailiyskiy Alatau. Girovka, N.N., [1992,rus] 48-4454

Winter concreting

Admixture effects on sulphur concrete durability. Czarnecki, B., et al, [1990,eng] 48-3063

Cold hand patching materials. Outcalt, W., [1993,eng] 48-3282

Concrete masonry handbook for architects, engineers, builders. Panarese, W.C., et al, [1991,eng] 48-2668

Effects of high-range water reducers on the properties of fresh and hardened concrete. Zakka, Z.A., et al, [1989,eng] 48-3707

Low-temperature admixtures for concrete. Korhonen, C.J., et al, [1994,eng] 48-3354

New guidelines for cold weather concreting. Edmeades, R.M., et al, [1993,eng] 48-3759

Reinforcing steel/concrete bond strength development in concrete cured with antifreeze admixture. Wood, T.B., et al, [1994,eng] 48-3353

Repair and protection of concrete structures. Mailvaganam, N.P., ed, [1992,eng] 48-2653

Using dry mixtures for concreting extended constructions on a frozen foundation. Shifrin, S.A., et al, [1992,rus] 48-1392

Winter concreting with the use of energetically modified cement (EMC). Jonasson, J.E., et al, [1994,eng] 48-3954

Winter construction

See [also]: Cold weather construction

Winter maintenance

Accident analysis of ice control operations. Kuemmel, D.A., et al, [1993,eng] 48-1764

Apparatus and method for de-icing and anti-icing (and/or cleaning and rinsing) aircraft. Krilla, R.A., et al, [1992,eng] 48-4959

Arizona DOT develops winter management plan. Taylor, C.R., [1993,eng] 48-1763

Design of a snow melting tank using treated wastewater. Maeda, T., et al, [1994,eng] 48-5008

Effects of deicing salt on overstory vegetation in the Lake Tahoe basin. Eppard, R.A., et al, [1992,eng] 48-2090

Field test comparison of calcium magnesium acetate to salt. Harris, G.P., et al, [1993,eng] 48-1272

Good ideas to improve winter maintenance.[1994,eng] 48-5300

How to limit thaw damage to gravel roads. Muntz, H., [1994,eng] 48-5304

How you can evaluate wetted salt.[1994,eng] 48-5302

Link rod for aircraft deicer vehicle. Vestergaard, G., [1993,eng] 48-4960

Measurements of snow plow loads during ice removal. Nixon, W.A., et al, [1993,eng] 48-3923

Mining machines serviceability under cold climate conditions. Larionov, V.P., et al, [1994,eng] 48-3985

New sensor can reduce highway deicer use.[1994,eng] 48-4255

New way to beat snow and ice. Pletan, R.A., [1994,eng] 48-5303

Non-water-sprinkling type snow melting method and system. Katsuragi, K., [1991,eng] 48-1517

On the way: anti-icing instead of deicing. Mergenmeier, A., [1994,eng] 48-4256

Oregon experiments with anti-icing operations.[1994,eng] 48-4254

Repair of a road built on permafrost at Kilpisjärvi, northern Finland. Saarelainen, S., [1993,eng] 48-450

Road weather information systems for snow control. Boselly, S.E., III, [1992,eng] 48-2091

Routeing winter gritting vehicles. Eglese, R.W., [1994,eng] 48-5054

Salt, sand, or chemicals. Heydorn, A., [1993,eng] 48-2025

Snow and ice control in Japan and United States. Minsk, L.D., et al, [1993,eng] 48-2673

Snow engineering for road—about snow avalanches and drifting snow. Norem, H., [1994,eng] 48-4026

Snow scoop helps clear rear of plow.[1994,eng] 48-5301

Traffic on ice and snow. Øberg, G., [1993,eng] 48-5061

Truth about winter maintenance. Muntz, H., [1994,eng] 48-5299

Winter road maintenance methods in Finland. Finnish National Road Administration, [1993,eng] 48-3938

Winter road repair in snowy and cold regions. Atochi, S., [1988,jpn] 48-571

See [also]: Snow removal

Winter operation

See [also]: Cold weather operation

Winter performance

See [also]: Cold weather performance

Winter road service

See [also]: Road maintenance; Snow removal; Winter maintenance

Wood

Interpreting past climate from stable isotopes in continental organic matter. Edwards, T.W.D., [1993,eng] 48-1501

Wood ice friction

On the slip of solids on ice. Budnevich, S.S., et al, [1994,eng] 48-4955

Wood snow friction

Bottom temperatures of skating skis on snow. Colbeck, S.C., [1994,eng] 48-2632

Device for testing ski sliding surface. Kamenskikh, V.A., et al, [1990,eng] 48-2187

X ray analysis

Amelioration of ice layer effects on spectroscopic detector performance. Foitzik, A.H., et al, [1993,eng] 48-1012

Ice surface melting revealed by X-ray scattering. Lied, A., et al, [1994,eng] 48-4807

In-situ synchrotron x-ray topographic studies of polycrystalline ice. Baker, I., et al, [1994,eng] 48-5579

Introduction of application methods for CT in frozen soil experimental research. Pu, Y.B., [1993,eng] 48-5231

Introduction of applying method for CT in frozen soil experiment research. Pu, Y.B., [1993,chi] 48-1459

Screening for metals by X-ray fluorescence. Hewitt, A.D., [1994,eng] 48-4656

Small angle x-ray scattering in the early stages of ice formation. Michielsen, J.C.F., et al, [1991,eng] 48-3754

X-ray analysis of water chemisorbed on metal. Pangher, N., et al, [1994,eng] 48-4979

X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

X ray diffraction

New phase of ice above 70 GPa. Hama, J., et al, [1994,eng] 48-4718

Thermal properties of high pressure ice. Fei, Y.W., et al, [1993,eng] 48-922

X-ray diffraction study of ice nuclei critical size. Majewski, J., et al, [1994,eng] 48-4090

X-ray investigation of supercooled water. Corban, R., et al, [1992,eng] 48-1896

Young ice

Comment on paper by St. Germain et al. Askne, J., et al, [1993,eng] 48-3006

Ice-core studies in the western Weddell Sea. Gow, A.J., et al, [1992,eng] 48-3771

Laboratory backscatter measurements over urea ice with a snow cover at Ku band. Lytle, V.I., et al, [1993,eng] 48-2106

Microwave technique for mapping thin sea ice. Cavalieri, D.J., [1994,eng] 48-4992

Preliminary measurements of acoustic emission in young artificial sea ice. Langhorne, P.J., et al, [1993,eng] 48-4335

Radar backscatter signatures of thin sea ice in the central Arctic. Beaven, S.G., et al, [1994,eng] 48-4648

Young sea ice signatures in the deep arctic during the fall freeze-up. Beaven, S.G., et al, [1993,eng] 48-1687

Yugoslavia

Damages to overhead lines from ice accretions in Serbia. Vuckovič, Z., et al, [1993,eng] 48-841

Interferential type of climate, reason for damages to overhead lines. Zadnik, B., et al, [1993,eng] 48-843

Manual of environmental effects: the countries of former Yugoslavia and Albania. Flood, M., et al, [1993,eng] 48-1869

Zaire

—Stanley, Mt.

Long-term fluctuations of East African glaciers. Kaser, G., [1993,ita] 48-4104