

UNCLASSIFIED

AD NUMBER
AD440831
NEW LIMITATION CHANGE
TO Approved for public release, distribution unlimited
FROM Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; Apr 1964. Other requests shall be referred to Central Intelligence Agency, Office of Central Reference, 2430 E. Street, NW, Washington, DC 20505.
AUTHORITY
CIA ltr, 7 Sep 2004

THIS PAGE IS UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

CATALOGED BY DDC

440831

AS AU No.

FOR OFFICIAL USE ONLY



CONSOLIDATED TRANSLATION SURVEY

Number 76

For April 1964

440831

Prepared by

Foreign Documents Division
CENTRAL INTELLIGENCE AGENCY
2430 E St., N. W., Washington 25, D. C.

FOR OFFICIAL USE ONLY

DDC
JUN 15 1964
HISTORICAL
ASIA E

CONSOLIDATED TRANSLATION SURVEY

FOR APRIL 1964

TABLE OF CONTENTS

	<u>Page</u>
Preface	iii
Requests For Copies	iv
USSR	
Economic	1
Political	2
Military	2
Sociological	3
Biographic	3
Eastern Europe	
Economic	3
Political	5
Military	5
Geographic	5
Sociological	5
Western Europe	
Economic	6
Political	6
Military	7
Geographic	7
Sociological	7
Africa	
Economic	8
Middle East	
Economic	8
Political	8
Military	8
Sociological	8
Biographic	8

	<u>Page</u>
Far East	
Economic	9
Political	10
Military	10
Sociological	10
Latin America	
Economic	11
Political	11
Sociological	11
World Wide	
Economic	11
Scientific	
Aerospace	12
Agriculture	12
Biological & Medical Sciences	14
Chemistry	22
Earth Sciences & Astronomy	24
Electronics	27
Engineering	28
Fuels and Propulsion	29
Materials & Metallurgy	30
Mathematics & Data Processing	33
Nuclear Science & Technology	34
Physics	35
Miscellaneous	41
Information on Cover-To-Cover Translations	43
Index to Authors	135

CONSOLIDATED TRANSLATION SURVEY

PREFACE

This survey is prepared monthly by the Foreign Documents Division, Office of Central Reference, CIA, from lists received through the cooperation of US government agencies and includes translations prepared by such agencies, private industry, universities, research institutions, and commercial translation organizations. It is a compilation of foreign documentary projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (*), and, when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

REQUESTS FOR COPIES

Requests for copies of published projects should be made direct to the designated producing organization.

All requests for items prefixed by "CIA" should be addressed to Office of Central Reference, 2430 E Street, NW, Washington, D.C. 20505

Addresses of producers follow:

Abingdon Press

Abingdon Press
Nashville 2,
Tennessee

ACIC - Aeronautical Chart and Information Center
(see OTS)

ACSI

Department of Army
Assistant Chief of Staff, Intelligence
Intelligence Documents Branch
Washington 25, D.C.

Requests from non-Government sources for
Army documents should be ordered through

Department of Commerce
Office of Technical Services
Washington 25, D.C.

ACSIL

Admiralty Center for Scientific Information
and Liasion
Queen Anne's Mansions
St. James Park
London, S.W. 1, England

Acta Metallurgica

Acta Metallurgica
122 East 55th Street
New York 22, New York

AEC - Atomic Energy Commission (see Department of Commerce)

AERE-Harwell Lib

The Librarian
AERE, Ministry of Supply
Harwell, Didcot, Birks
England

AF

Department of Air Force
Collection and Dissemination
Assistant Chief of Staff, Intelligence
ATTN: AFCIN 1B3
Washington 25, D.C.

AGI

American Geological Institute
2101 Constitution Avenue, NW
Washington 25, D.C.

AI - Atomics International (see AEC)

AIP

American Institute of Physics
335 East 45th Street
New York 17, New York

Amer Math Soc

American Mathematical Society
190 Hope Street
Providence 6, Rhode Island

Army Map Service - (see ACSI)

Atheneum Pub

Atheneum Publishers
162 East 38th Street
New York 16, New York

Barnes & Noble

Barnes & Nobel, Incorporated
105 Fifth Avenue
New York 3, New York

BISI

British Iron and Steel Institute
4 Grosvenor Gardens
London, SW 1, England

CB

Consultants Bureau, Incorporated
227 West 17th Street
New York 11, New York

CSIR

Council for Scientific and Industrial Research
The Head
Information Division
P. O. Box 395
Pretoria, Africa

CSIRO

Commonwealth Scientific and Industrial Research Organization
314 Albert Street
East Melbourne, C 2, Victoria
Australia

CSR

The Librarian
Colonial Sugar Refinery Research Laboratories
P.O. Box 39
Roseville, New South Wales, Australia

DDC

Defense Documentation Center
TISIA-1
Arlington Hall Station
Arlington 12, Virginia

Dept of Com

Department of Commerce
Office of Technical Services
Washington, 25, D.C.

Dept of State

Department of State
Division of Library and Reference Service
132 State Annex 1
Washington, D.C.

DIA

Defense Intelligence Agency
Section: AD-1C
Building B
Arlington Hall Station
Arlington, Virginia

Emmanuel Coll Res Lang Ctr

Emmanuel College Research
Language Center
The Fenway
Boston, Massachusetts

FTD - Foreign Technology Division (see AF)

GB

Association of Special Libraries and
Information Bureau
3 Belgrave Square
London SW 1, England

ISA

Instrument Society of America
313 Sixth Avenue
Pittsburgh 22, Pennsylvania

JPRS

U.S. Department of Commerce
Office of Technical Services
Joint Publications Research Service
Building T-30
Ohio Drive & Independence Avenue, SW
Washington 25, D.C.

McGraw-Hill Book Co

McGraw-Hill Book Company, Incorporated
330 West 42d Street
New York 36, New York

NASA

National Aeronautics and Space Administration
1512 H Street NW
Washington, D.C. 20546

Navy

Department of Navy
Office of Naval Intelligence
Washington 25, D.C.

NIH

National Institutes of Health
Translating Section, Library
Building 10, Room 11N112
Bethesda 14, Maryland

NLL

National Lending Library
for Science & Technology
Boston Spa, Yorkshire, England

NRC/C

National Research Council, Canada
The Library
Sussex Drive
Ottawa 2, Canada

ONI - Office of Naval Intelligence (see Navy)

OTS

Office of Technical Service
Department of Commerce
Washington 25, D.C.

(Also available through Department of Commerce Field
Offices)

Prentice-Hall Inc

Prentice-Hall Incorporated
Engelwood Cliff
New Jersey

Rand Corp

Rand Corporation
ATTN: Publications Office
1700 Main Street
Santa Monica, California

Redstone Arsenal - (see DDC)

SACSIR - (see CSIR)

Scripta Technica, Inc.

Scripta Technica Incorporated
1000 Vermont Avenue, NW
Washington 5, D.C.

UCRL - University of California Lawrence Radiation Laboratory;
Livermore, California
(see AEC)

UKAEA

**United Kingdom Atomic Energy Authority
Development and Engineering Group
Risley, Warrington, Lancs, England**

Univ of Illinois Press

**University of Illinois Press
Urbana
Illinois**

USDA

**Department of Agriculture
Foreign Agricultural Service
Room 5086
14th and Independence Avenue, NW
Washington 25, D.C.**

**519th MI Bn - 519th Military Intelligence Battalion
(see ACSI)**

**525th MI Gp - 525th Military Intelligence Group
(see ACSI)**

TRANSLATIONS REPORTED

FOR APRIL 1964

USSR

Economic

Lubricating and Sealing Systems, by I. V. Mazyrin.
RUSSIAN, bk, Spravochnik Mashinostroitel'va, v
Shesti Tomakh, Moscow, Vol IV, 1963, pp 745-788.
*FTD-TT-64-343

Administrative Structure for Automated Enterprises
Proposed, by M. Federovich, 5 pp.
RUSSIAN, per, 1964.
JPRS 23995

Karbolit Plant Produces Novolak Resins, by
F. I. Boyarkov, A. V. Kupavo, 5 pp.
RUSSIAN, per, Byul Tekh Ekon Informat, No 12, 1963,
pp 8-11.
JPRS 23779

New Chemicals for Plant Protection, by D. M. Paykin, 7 pp.
RUSSIAN, per, Byul Tekh Ekon Informat, No 12, 1963,
pp 11-15.
JPRS 23779

Noril'sk Metallurgical Combine Becomes Profitable,
by L. Lopatnikov, 7 pp.
RUSSIAN, np, Ekon Gazeta, No 2, 11 Jan 1964, p 14.
JPRS 23779

Administration in Agricultural Enterprises, by
A. Yasin, 21 pp.
RUSSIAN, per Ekon Sel'skogo Khoz, No 12, 1963,
pp 16-30.
JPRS 23755

The Work of the Ukrainian SSR Academy of Sciences
Institute for the Utilization of Gas, by V. F. Kopytov,
5 pp.
RUSSIAN, per, Gaz Prom, No 9, 1963, pp 28, 29.
NLL Tr Bulletin
Vol VI, No 2, 1964

All Work Time Should Be Devoted to Business, 11 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 11-18.
JPRS 23831

The Economic Training of Engineering Personnel, by
P. Zakharov, G. Surmilo, 8 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 40-51.
JPRS 23831

The High Goal of Soviet Cinematographic Art, by
A. I. Romanov, 13 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 62-71.
JPRS 23831

USSR Economic (Contd)

Growth Problems of the Soviet Chemical Industry, by
N. Milash, Ye. Nikitin, 5 pp.
RUSSIAN, np, Leningradskaya Pravda, 26 Dec 1963, p 2.
JPRS 23779

Electroslag Smelting for use in Machine Building,
by B. I. Medovar, Ye. G. Paton, 5 pp.
RUSSIAN, per, Mashino, No 5, Sep, Oct 1963, pp 78-81.
JPRS 23739

High Quality Equipment for Agriculture, by
V. F. Garbuzov, 7 pp.
RUSSIAN, per, Mashino, No 5, Sep, Oct 1963, pp 95-98.
JPRS 23663

Machine for Mechanized Water Supply and Watering
of Cattle, by A. N. Panchenko, 6 pp.
RUSSIAN, per, Mashino, No 5, Sep, Oct, 1963, pp 107-
111.
JPRS 23663

A System of Machines for the Handling of Mineral
Fertilizers, by M. M. Kapiunov, I. F. Sendryakov,
9 pp.
RUSSIAN, per, Mekh i Elektri, No 6, 1963, pp 1-4.
JPRS 23994

Public Catering Reviewed, by N. Zav'yalov, 9 pp.
RUSSIAN, per, Obshch Pitanie, Jan 1964, pp 3-5.
JPRS 24005

Soviet Academician Rejects Douglas Report on
Economic Slowdown, by V. Starovakiy, 5 pp.
RUSSIAN, np, Pravda,
JPRS 23818

Coal-Tar Chemical Production in the Ukraine,
by B. Didenko, M. Dmitriyev, 5 pp.
RUSSIAN, np, Pravda Ukrainy, 6 Feb 1964, p 2.
JPRS 23987

Miscellaneous Brief News Items on Soviet Metallurgy,
6 pp.
RUSSIAN, np, Sovet Litva, 6 Feb 1964, p 1.
JPRS 23875

Commodity Turnover in 1964-1965, by I. Khrekin, 18 pp.
RUSSIAN, per, Sovet Torgovlya, No 1, 1964, pp 5-10.
JPRS 24005

USSR
Economic (Contd)

Construction Machinery Manufacture--the Main Technical Base of the Construction Industry, by Ye. S. Novoselov, 5 pp.
RUSSIAN, per, Stroitel i Dorozhnyye Mashiny, No 1, 1964, pp 1-3.
JPRS 23684

Analysis of the Use of CM-8/9 Rock Crushing Sorting Units and Ways of Increasing Economy of Use, by V. A. Streitsov, 5 pp.
RUSSIAN, per, Stroitel i Dorozhnyye Mashiny, No 1, 1964, pp 38-31.
JPRS 23684

Chemical Production at Cheloken Plant, by Ye. Almazov, 5 pp.
RUSSIAN, np, Turkmenkaya Iskra, 14 Jan 1964, p 2.
JPRS 23987

Soviet Central Asian Natural Resources, by D. Alyshbayev, 5 pp.
RUSSIAN, per, Vostok Eksp, No 12, 1963, pp 133-136.
JPRS 24011

Selected News Items on Soviet Ferrous Metallurgy, by V. I. Lenin, 11 pp.
RUSSIAN, np, Vyshka, 9 Jan 1964.
JPRS 23860

Truck Production at Minsk Automobile Plant, by A. Aniskovich, A. Shapovalov, et al, 6 pp.
RUSSIAN, per, Za Rulem, No 1, 1964, pp 8, 9.
JPRS 24001

Report of the Central Committee of the Communist Party of Georgia, 9 pp.
RUSSIAN, np, Zarya Vostoka, 30 Jan 1964, p 2.
JPRS 24011

Conventional Symbols Used in Station Work Plans, 11 pp.
CZECH, bk, Rusko-Cesky Zeleznicí Slovník, 1956, pp 14-32.
ACSI I-3721-A
ID 2251751
519th MI Bn

Motor Cargo Ship With a 4150-Ton Capacity for the USSR, by P. Maatz, 22 pp.
GERMAN, per, Schiffbautechnik, Vol XIV, No 1, 1964, pp 7-15.
JPRS 23998

USSR
Political

The Implementation of the Decisions of the February Plenum of the Central Committee of the CPSU in Practice, 11 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 3-10.
JPRS 23831

International Meetings of Marxists, by Yu. Shchirovskiy, 11 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 102-106.
JPRS 23831

Soviet View of Population Explosion Oppose Malthus Theories and Birth Rate Curbs; Say Capitalism, not Overpopulation, Causes Workers Plight, by V. Scrogin, 13 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 107-115.
JPRS 23863

USSR
Military

The "Amur" Glider, by V. Zamyatin, V. Spivak, 11 pp.
RUSSIAN, per, Krylya Rodiny, No 9, 1962, pp 17-19.
9692031
FTD-TT-63-1147

Submarine Watch Officers' Training, by V. S. Malyarchuk, 5 pp.
RUSSIAN, per, Morskoy Sbornik, No 9, 1963, pp 37-41.
9692107
DIA
PC 620

Specific Features of Preparation for Conducting Group Exercises in Training Air Traffic Controllers, by V. K. Medyakov, 9 pp.
RUSSIAN, per, Morskoy Sbornik, No 9, 1963, pp 44-51. 9692107
DIA
PC 620

Soviet Long-Range Bomber Bases Near the North Pole, 9 pp.
GERMAN, per, Flugwelt, Nov 1954.
RAND Corp

EASTERN EUROPE

USSR Sociological

Soviet View on Motion Picture Realism, by
Sergey Yutkevich, 23 pp.
RUSSIAN, per, Izvestiya Kino, No 1, 1964, pp 68-80.
JPRS 23843

Our Music Today, by V. Vinogradov, 16 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 72-83.
JPRS 23831

The Word Belongs to the Writer-Publicists, 13 pp.
RUSSIAN, per, Kommunist, No 3, Feb 1964, pp 84-90.
JPRS 23831

A New Stage in Advancing the Scientific-Atheistic
Work of the Party, by V. A. Tancher, 12 pp.
RUSSIAN, per, Nauchnye Dok Vyssh Shkol. Filosof-
skie Nauki, No 1, 1964, pp 20-28.
JPRS 24027

Biographic

Aksel' Berg, 6 pp.
RUSSIAN, per, Nauka i Zhizn, No 11, 1963, pp 40-42.
JPRS 23383

Yakov Ivanovich Gerasimov, by A. V. Nikol'skaya,
A. V. Kiselev, 6 pp.
RUSSIAN, per, Vest Moskov Universit, No 6, 1963, pp 75-77.
JPRS 23383

Economic

Plans for the Development of the Albanian Economy,
13 pp.
ALBANIAN, per, Rruga e Partise, No 1, 1964, pp 13-25.
JPRS 23817

The Role of the Builder in the Construction of New
Buildings, by Haxhi Dauti, 5 pp.
ALBANIAN, per, Zeri i Popullit, 6 March 1964, pp 2, 3.
JPRS 23982

The Power Exploitation of Our Water Resources, by
Dobri Mikhaylov, 20 pp.
BULGARIAN, per, Khidrotekhnika i Melioratsii, No 8,
Oct 1963, pp 226-231.
JPRS 23845

Cooling of Massive Concrete at the Ivaylovgrad Hydro-
node, by Spiridon Iliev, 11 pp.
BULGARIAN, per, Khidrotekhnika i Melioratsii, No 8,
Oct 1963, pp 232, 233, 237.
JPRS 23845

CEMA Conference on Inventions of the CEMA-Member
Countries, Held in Budapest, 5-16 Dec 1963, by
Penko At. Penev, 6 pp.
BULGARIAN, per, Ratsionalizatsiya i Standartizatsiya,
No 11, 1963, pp 35, 36.
JPRS 23844

The Status, Distribution and Use of Manpower in Bulgaria,
by Todor Avramov, 14 pp.
BULGARIAN, per, Trud i Tseni, No 1, 1964, pp 1-13.
JPRS 23823

Problems in Price Relations, by Ts. Slavov,
T. Kutiev, 13 pp.
BULGARIAN, per, Trud i Tseni, No 1, 1964, pp 27-38.
JPRS 23823

Perfecting the Organization of Wages and Material
Incentive, by Asen Dohrev, 13 pp.
BULGARIAN, per, Trud i Tseni, No 1, 1964, pp 52-64.
JPRS 23823

Integration in the Yugoslav Coal Industry, by
Oskar Hibner, 17 pp.
CROATIAN, per, Produktivnost, No 11, 1963,
pp 856-862.
JPRS 23871

The Most Important Assignments in Chemical Research
in the German Democratic Republic Through 1970, by
Wolfgang Schirmer, 13 pp.
GERMAN, per, Chemische Technik, No 1, 1964, pp 1-6.
JPRS 23988

Eastern Europe
Economic (Contd)

Development of the Network of Retail Sales Outlets in East Germany and Their Next Tasks, by Herbert Paeper, 15 pp.
GERMAN, per, Der Handel, No 12, 1963, pp 540-542; No 1, 1964, pp 41-43.
JPRS 23824

Trade Agreement Between the German Democratic Republic and Sweden for 1964, 7 pp.
GERMAN, per, Marktinformationen für Industrie und Außenhandel der DDR, No 7, 17 Feb 1964, p 10.
JPRS 23844

Production of Pure Tellurium, by Ludwig Muller, 14 pp.
GERMAN, per, Neue Hütte, No 1, 1964, pp 17-23.
JPRS 23988

Automation Today and Tomorrow an Analysis of the Status of Automation Technology in the Chemical Industry and a Review of the Tasks Ahead, by H. Gena, 10 pp.
GERMAN, per, Die Technik, Vol XIV, No 2, 1964, pp 65-68.
JPRS 23988

Key Points of the Water Management Tasks in 1964 From the Perspective of the Fifth Party Plenum and of the Economic Policies of East Germany, by Johann Rochlitzer, 7 pp.
GERMAN, per, Wasserwirtschaft-Wassertechnik, No 2, 1964, pp 33-35.
JPRS 24006

Planning of the Packing of Machines for Transportation, by Rudolf Barlai, 7 pp.
HUNGARIAN, per, Csomagolas Technika, Vol VIII, No 3, May, Jun 1963, pp 75-80.
ACSI I-3961-B
ID 2204001264

Some Theoretical and Practical Questions in Computing the Permeability of Solid Polymers, by Ivan Varsanyi, 5 pp.
HUNGARIAN, per, Csomagolas Technika, Vol VIII, No 3, May, Jun 1963, pp 71-73.
ACSI I-3961-A
ID 2204001264

The Rumanian System of Financing Enterprises, by Tadeusz Kierczynski, 16 pp.
POLISH, per, Finanse, No 1, 1964, pp 44-56.
JPRS 23984

The International Bank of Mutual Economic Cooperation, by Adam Zebrowski, 13 pp.
POLISH, per, Finanse, No 2, 1964, pp 1-11.
JPRS 24031

Eastern Europe
Economic (Contd)

Standards for Evaluating Industrial Enterprise Activity in the Management of the Wage Fund, by Bronislaw Blass, 19 pp.
POLISH, per, Gospodarka Planowa, No 2, Feb 1964, pp 15-23.
JPRS 23823

Tentative Optimization of Current Central Industrial Plan, by Mieczyslaw Lesz, 15 pp.
POLISH, per, Gospodarka Planowa, No 5, 1963, pp 11-16.
JPRS 23838

A Draft Outline of a Long Term Plan for the Development of Cattle Breeding in the Years 1963-1970, by Jerzy Kwasioboraki, 14 pp.
POLISH, per, Nowe Rolnictwo, No 3, 1-15 Feb 1964, pp 3-7.
JPRS 24039

High Quality Petroleum and Chemical Products at Lower Cost, 6 pp.
RUMANIAN, np, Munca, 7 Feb 1964, pp 1, 5.
JPRS 24003

The Need for Air Transport and the Role of This Mode of Transportation in the Transportation System, by Marius Teodorescu, Cheorghe Topor, 18 pp.
RUMANIAN, per, Revista Transporturilor, Vol X, No 12, 1963, pp 552-561.
JPRS 23865

Progress of the Cement Industry, by Sergiu AlmaJeanu, 7 pp.
RUMANIAN, per, Viata Economica, No 8, 21 Feb 1964, pp 1, 10.
JPRS 24003

Glossary for the Statistical Bulletin of the National Bank of Yugoslavia, 115.
RUSSIAN, bk, Statisticki Bilten Sluzbe Društvenog knjigovodstva pri Narod Banci Jugoslavije, Vol IX, No 11, 1963.
JPRS 24016

Possibilities of Exploiting the Ore Deposits in the Zagreb Area, by Vjekoslav Kosner, 9 pp.
SERBOCROATIAN, per, Kemija i Industrija, Vol XII, No 11, 1963, pp 861-863.
JPRS 23871

The Possibilities of Producing Synthetic Rubber in Yugoslavia, by Frano Batistic, 6 pp.
SERBOCROATIAN, per, Kemija i Industrija, Vol XII, No 11, 1963, pp 864, 867, 868.
JPRS 23871

Eastern Europe
Economic (Contd)

Problems of Transportation of Bed-Load, 9 pp.
SERBO-CROATIAN, per, Saopštenje, Vol X, No 27,
1963.
OTS 63-11451/2
PL-480

The Normative Acts of Yugoslav Economic Organiza-
tions, by Nevenka Subotic, 8 pp.
SERBOCROATIAN, per, Tehnika, Vol XV, No 2,
1964, pp 379-382.
JPRS 23984

Political

The Vanguard Role of Communists, 9 pp.
BULGARIAN, per, Partien Zhivot, No 2, 1964, pp 3-9.
JPRS 23862

Criticize Fuernberg Article on Yugoslavia, by W., 7 pp.
GERMAN, np, Rote Fahne, No 2(4), 15 Dec 1964,
pp 31-35.
JPRS 23863

Reconciling Ideological Work and Education, by
Prvoslav Ralic, 16 pp.
SERBIAN, per, Socializam, Vol VII, No 2, 1964,
pp 218-233.
JPRS 23862

Directory of Yugoslav Federal, Republic, and Regional
Government Officials, 52 pp.
SERBOCROATIAN, per, Jugoslovenski Pregled, Vol VII,
No 11, 12, 1963, pp 431-470.
JPRS 23856

Military

Working With Recollections of World War II, by
Stanislav Zamecnik, 32 pp.
CZECH, per, Historie a Volensvi, No 2, 1963,
pp 182-225.
ACSI I-3752-A
ID 2252858
519th MI Bn

Eastern Europe
Military (Contd)

History of the American Army -- Its Traditions and
Military Heritage, by Jaroslav Kucera, 16 pp.
CZECH, per, Historie a Volensvi, No 2, 1963,
pp 295-318.
ACSI I-3752-B
ID 2252858
519th MI Bn

One Gun and Seven of Us, by Janusz Magnuski, 8 pp.
POLISH, np, Zolnierz Polski, No 32, 11 Aug 1963,
pp 8, 9.

ACSI I-3963
ID 2204001464
519th MI Bn

Geographic

Triangulation Results of the Royal and Imperial
Military-Geographic Institute. Vol II: First-Order
Triangulation in the Eastern Part of the Monarchy.
HUNGARIAN, bk, Die Ergebnisse der Triangulier-
ungen des K. U. K. Militar-Geographischen
Institutes, Vienna, 1902.
ACIC

Sociological

Directive Governing the Admission of Bulgarian Youth
to Foreign Higher Educational During the 1964-1965
School Year, by G. Ganov, 6 pp.
BULGARIAN, per, Durzhaven Vestnik, No 18, 3 Mar
1964, pp 5-7.
JPRS 24025

Public Services in Bulgaria, by Stamen Marinov, 19 pp.
BULGARIAN, per, Ekonomicheska Misul, No 10,
Nov, Dec 1963, pp 98-107.
JPRS 24025

The Socialist Family Nucleus of Bulgarian Society,
by Docent Geno Tsanov, 7 pp.
BULGARIAN, per, Naruchnik na Avdiatori, No 37,
Dec 1963, pp 18-26.
JPRS 23974

Mathematics --- Science of the Present and Future,
by Petko Yordanov, 8 pp.
BULGARIAN, per, Partien Zhivot, No 1, 1964, pp 32-37.
JPRS 23769

Eastern Europe
Sociological (Contd)

The Changing Mortality Rate and Its Effect on
Manpower Resources in Bulgaria, by Minko P. Minkov,
14 pp.
BULGARIAN, per, Planovo Stopanstvo i Statistika,
No 2, 1962, pp 58-70.
JPRS 23769

Long-Term Changes in Age Structure of Yugoslav
Population, by Dragoljub J. Tasic, 40 pp.
CROATIAN, per, Stanovnistvo, Vol I, No 1,
Jan-Mar 1963, pp 9-44.
JPRS 23769

Habilitation Proceedings for Advanced School Docenta,
17 pp.
CZECH, per, Vestník Ministerstva Školství a Kultury,
Vol XVII, No 32, 20 Nov 1963, pp 330-332; No 33,
30 Nov 1963, pp 334-335; No 34, 10 Dec 1963,
pp 345-346.
JPRS 24025

Statistics on Women in the GDR, 43 pp.
GERMAN, per, Sozialistische Demokratie, 28 Feb 1964,
pp 1-24, excl. p 3.
JPRS 23974

Polish Research Guide 1964, by Jerzy Kozlowski, 419 pp.
POLISH, bk, 1964.
OTS 62-11062
PL-480

Domestic Relations Law and Socialist Morals, by
Tudor R. Popescu, 11 pp.
RUMANIAN, per, Justitia Noua, Vol XX, No 1, 1964,
pp 28-36.
JPRS 23974

Current Problems in Higher Education, by
Jean Livescu, 18 pp.
RUMANIAN, per, Lupta de Clasa, No 12, 1963, pp 25-39.
JPRS 23677

A Report on the Enlarged Plenum of the Central
Committee of the Red Cross, 5 pp.
RUMANIAN, per, Sanatatea, No 2, 1964, p 4.
JPRS 23974

WESTERN EUROPE

Economic

Mauritania Completion of the Miferma Railroad,
15 pp.
FRENCH, per, La Vie Du Rail Outre-Mer,
Vol LXV, No 108, Mar 1963, pp 2-9. (Call No HE3421
Vol 65, No 108, Eng Tr)
Army Map Service

The Effect of Sunshine on the Temperature of Vehicle
Body Metal Sheet Assuming European and Tropical
Conditions, by Josef Pfleger, 7 pp.
GERMAN, per, Automobiltechnische Zeitschrift,
Vol LXIII, No 4, 1961, pp 103-108.
ACSI I-3946
ID 2204000464
525th MI Gp

On the Development of the Money and Capital Markets,
by Walter Schwegler, 9 pp.
GERMAN, np, Neue Zürcher Zeitung, 1 Mar 1964,
Encl No 1 to Desp A-104, AmCongen, Zurich.
Dept of State

Political

Communist Opposition Organ Analyzes UEC Crisis,
9 pp.
FRENCH, per, La Voie Communiste, No 42, March 1964,
p 5.
JPRS 24007

French Dissident Catherine Rivier on International
Communist Relations, Rejects Idea of Chinese-Led
Internationa, by Catherine Rivier, 6 pp.
FRENCH, per, La Voie Communiste, No 42, Mar
1964, pp 8-10.
JPRS 24007

Interview With Tshombe on the Drath of Lumumba, by
Pierre Davister, 16 pp.
FRENCH, per, Pourquoi Pas, 31 Jan 1964, pp 4-7;
9-13.
JPRS 23847

French Delegation's Interview with Mao Tse-Tung and
Impressions Following Asian Tour, by Jean Benedetti,
6 pp.
FRENCH, np, Presse-L'Intransigeant, 21 Feb 1963, p 2E.
JPRS 23713

Western Europe
Political (Contd)

Speech by Dr Ernst Schneider, Common Market and Kennedy Round as Viewed by the German Economy, 9 pp.
GERMAN, rpt, Jan 1964, Encl No 1 to Desp A-202, Am Consul, Duesseidori.
Dept of State

The New Transmittal System of the German Federal Postal Organization, 28 pp.
GERMAN, rpt, Das Neue Leitsystem der Deutschen Bundespost, 15 Nov 1962, 30 pp.
ACSI I-4356
ID 2204008364

Austrian Dissidents Criticize Austrian CP and Khrushchev, Reorganize Rote Fahne, by L. S., 7 pp.
GERMAN, np, Rote Fahne, No 2(4), 15 Dec 1964, pp 10-15.
JPRS 23863

Georg Lukacs on Sectarianism and the Sino-Soviet Dispute, by Georg Lukacs, 32 pp.
ITALIAN, per, Nuovi Argomenti, No 61-66, Mar 1963-Feb 1964, pp 116-140.
JPRS 23710

Pajetta Calls for a Mass Communist Party, by Giancarlo Pajetta, 5 pp.
ITALIAN, per, Rinascita, No 10, 7 Mar 1964, pp 1, 2.
JPRS 24007

Fifth National Conference on Organization of the Italian Communist Party Naples, 12-15 March 1964, 31 pp.
ITALIAN, np, l'Unita, 13-16 Mar 1964, pp 7-10.
JPRS 24022

Longo's Speech, 5 pp.
ITALIAN, np, l'Unita, 14 Mar 1964, pp 10, 11.
JPRS 24022

Togliatti's Speech, 24 pp.
ITALIAN, np, l'Unita, 16 Mar 1964, pp 1-3.
JPRS 24022

Western Europe
Military

Aeroflot, 5 pp.
FRENCH, pcr, Air Review, No 2, 1964, OAIRA, Brussels.
AF 1807005464
(DIA)

Western Europe
Military (Contd)

The New Swedish Combat Tank S, by Ferdinand von Senger, Etterlin, 8 pp.
GERMAN, per, Soldat und Technik, Vol VI, No 6, 1963, pp 318, 319. (Call No AMS U3 368, Vol 6, No 6, Eng Tr)
Army Map Service

Western Europe
Geographic

The City Described by Districts the Central Area of the City, by Rigmor Skade, 6 pp.
DANISH, bk, Danmark, Vol I, pp 418-423.
ACSI I-3321-A
ID 2246281

Traffic: The Port of Copenhagen, by M. Fessen, 30 pp.
DANISH, bk, Danmark, Vol I, pp 617-646. 9691491
ACSI I-3321-B
ID 2246281

City of Lobito, 82 pp.
PORTUGUESE, bk, Cidade de Lobito, Lobito, 1956, 106 pp. (Call No DT 588 C79L7, Eng Tr)
Army Map Service

Western Europe
Sociological

Municipal Works, by Axel Holm, 23 pp.
DANISH, bk, Danmark, Vol VI, Part II, 1961, pp 530-552.
ACSI I-3224-C
ID 2244411

AFRICA

Economic

Traditional Crafts in Tunisia -- Preserving a Valuable Heritage and Raising the Economic and Social Level, by Ahmad Al-Kirfa'i, 19 pp.
ARABIC, np, Al-'Amal, 19, 20, 21, 26, 27 and 28 Feb 1964, p 4.
JPRS 23869

The Accomplishments of the Ministry of Public Works in 1963, 7 pp.
FRENCH, np, le Commerce du Levant, 2 Mar 1964, p 39.
JPRS 23785

National Promotion in Its Third Year: Water and Forestry Work, 6 pp.
FRENCH, np, Les Phares, No 129, 8 Feb 1964, pp 10, 11.
JPRS 23869

MIDDLE EAST

Economic

Syrian Communist Party Message to Syrian Workers, by 18 pp.
ARABIC, np, Al-Akhbar, 23 Feb 1964, pp 3, 5.
JPRS 23743

A Serious Memorandum on the Economic Situation in Syria, 8 pp.
ARABIC, np, al-Jazeera, 12 Feb 1964, p 6.
JPRS 23743

The Lebanese Trade Union Movement in 1963, by Maurice Tawilo, 17 pp.
FRENCH, np, le Commerce du Levant, 4 Mar 1964, pp 42-44.
JPRS 23785

Israeli National Budget for 1964, 29 pp.
HEBREW, document, Dec 1963, Encl No 1 to Desp A-655, AmEmbassy, Tel Aviv.
Dept of State

Middle East
Political

Anwar ABD Al Malik on Arab Socialism, by Anwar abd al Malik, 60 pp.
ITALIAN, per, Nuovi Argomenti, No 61-66, Mar 1963-Feb 1964, pp 141-183.
JPRS 23710

Middle East
Military

Atomic Disarmament, by Zev Shif, 6 pp.
HEBREW, np, Haarets, 27 Jan 1964.
JPRS 23669

Middle East
Sociological

Clinical Diagnosis of Medical Faculty of Tel Aviv, by Joel Marcus, 5 pp.
HEBREW, np, Davar, 3 Feb 1964, pp 3, 7.
JPRS 23838

The Polytechnic in Haifa, by David Friedlander, 5 pp.
HEBREW, np, Haarets, 31 Jan 1964, p 13.
JPRS 23669

Middle East
Biographic

The Profile of an Era: Professor Ernest David Bergman, 60 Years of Age, by A. Keenan, 12 pp.
HEBREW, per, Mada, Vol VIII, No 3, Dec 1963, pp 137-139.
JPRS 23838

FAR EAST

Economic

The Post-War Monetary War Between the United States and Other Imperialist Nations, by Hsiang Ch'ung, 16 pp. CHINESE, per, Hung Ch'i, No 2, 3, 1964, pp 71-81. JPRS 23683

Agreement Between the Chinese and Japanese Fishery Associations on Fishing Operations in the Yellow Sea and the East China Sea, 28 pp. JAPANESE, rpt, Dec 1963, Encl to Desp A-932, AmEmbassy, Tokyo, Dept of State

The Epoch-Making Development of an Independent Heavy Industrial Base and Production of Consumer Goods, by Son Kyongjun, 11 pp. KOREAN, per, Kulloja, No 19, Oct 1963, pp 7-15. JPRS 23829

Increasing The Variety and Improving the Quality of Consumer Goods, by Park Yong Song, 10 pp. KOREAN, per, Kulloja, No 19, Oct 1963, pp 16-23. JPRS 23829

The Great Triumph of the Mass Line in Economic Planning, 10 pp. KOREAN, per, Kulloja, No 20, 1963, 20 Oct 1963, pp 14-20. JPRS 23775

The Party's Basic Line of Economic Construction and the Central Task of the People's Economy for 1964, by Kim Sang-hak, Chong Kwang-yong, 17 pp. KOREAN, per, Kulloja, No 20 1963, 20 Oct 1963, pp 21-30. JPRS 23775

Strengthening the Guidance of the Rural Economy by the Enterprise Method, by Kim Man-gum, 11 pp. KOREAN, per, Kulloja, No 21, 1963, 20 Oct 1963, pp 31-41. JPRS 23729

A New Phase in the Development of the Machine Building Industry, by Hong Song-ju, 12 pp. KOREAN, per, Kulloja, No 23, 1963, 5 Dec 1963, pp 21-26. JPRS 24002

Our Party's Policy for Solving the Farm Problem in Socialist Construction, by Ho Chae-ok, 17 pp. KOREAN, per, Kulloja, No 24, 20 Dec 1963, pp 17-25. JPRS 24002

The Principle of the Central Link and the General Control of Tasks, by No Chu-hyok, 8 pp. KOREAN, per, Kulloja, No 24, 20 Dec 1963, pp 33-37. JPRS 23829

Far East Economic (Contd)

How to Evaluate Project Performance by Index Classification Among Industries, by Ch'oe Pong-che, 10 pp. KOREAN, per, Kyongje Chisik, No 49, Jan 1964, pp 25-28. JPRS 24015

Accurate Calculation of Productive Capacity and Drawing up a Scientific Production Plan, by Kim Yang-chun, 13 pp. KOREAN, per, Kyongje Chisik, No 49, Jan 1964, pp 41-45. JPRS 24015

Wire Installation Train for Electric Train Lines, by Yi Ch'ang-ho, 10 pp. KOREAN, per, Kyongje Chisik, No 49, Jan 1964, pp 12-15. JPRS 24015

On Making Pyongyang in Every Respect the Revolutionary Democratic and Socialist Capital, by Rim Tuk-chun, 5 pp. KOREAN, np, Minju Choson, Vol X, 12 Jan 1964, p 2. JPRS 23729

How to Accomplish the Ch-ongsanni Method in Marketing Operation, by Yu Pyong-nyon, 5 pp. KOREAN, np, Minju Choson, 14 Feb 1964, p 2. JPRS 24015

Problems Concerning the Instructions on Financial Management Activities for Cooperative Farms, by Pak Sang-tong, 15 pp. KOREAN, np, Minju Choson, 22, 23, 25 Feb 1964, p 2. JPRS 24015

Improving the Management of the Cooperatives, 6 pp. VIETNAMESE, np, Nhan Dan, 24 Jan 1964, p 2. JPRS 23997

The Hai Phong Railroad Car Plant, by Tran Dung Tien, 5 pp. VIETNAMESE, np, Nhan Dan, 24 Jan 1964, p 3. JPRS 23997

Changes in Transportation Schedules, 5 pp. VIETNAMESE, np, Nhan Dan, 25 Jan 1964, p 3. JPRS 23997

Far East
Political

Translations From the People's Handbook, 98 pp.
CHINESE, bk, Jen-nin Shou-ts'ue, Peiping, Oct 1963,
pp 130-148.
JPRS 22088

Leaders of CPSU Are Greatest Splitters of Our Times
Comment on the Open Letter of the Central Committee
of the CPSU VII, 28 pp.
CHINESE, per, Hung-ch'i, No 2, 3, 4 Feb 1964, pp 6-32.
JPRS 23683

Uphold the Revolutionary Spirit of the Proletariat, by
Chao Han, 19 pp.
CHINESE, per, Hung Ch'i, No 2, 3, 4 Feb 1964, pp 33-45.
JPRS 23683

Peking's Provocative Polemic Against Moscow, 6 pp.
GERMAN, np, Neue Zuercher Zeitung, 22 Feb 1964,
JPRS 23839

Annual Report of the National Front, by A. Anwar Sanusi,
5 pp.
INDONESIAN, np, Harian Rakyat, 4 Jan 1964, p 3.
JPRS 23776

Tokyo District Court Ruling on Damage Claims
Arising From Atomic Bombings of Hiroshima and
Nagasaki, by Koaru Yasui, Yuichi Takano, et al,
96 pp.
JAPANESE, rpt, Encl No 1-4 to Desp A-775,
AmEmbassy, Tokyo.
Dept of State

Class Nature of the State, 6 pp.
KOREAN, per, Kulloja, No 19, Oct 1963, pp 45-48.
JPRS 23676

Let us Raise the Great Spirit of the October Revolution,
7 pp.
KOREAN, per, Kulloja, No 21, Nov 1963, pp 31-37.
JPRS 23675

Attitudes Concerning the General Principles of
Marxism-Leninism, by Kim Chang-won, 6 pp.
KOREAN, per, Kulloja, No 21, Nov 1963, pp 38-43.
JPRS 23675

Unity of the Leadership and the Masses, by Chu Yong-jak,
9 pp.
KOREAN, per, Kulloja, No 22, 20 Nov 1963, pp 32-35.
JPRS 23675

Complete Table of Contents of the 1963 Kulloja, 13 pp.
KOREAN, per, Kulloja, No 24, 20 Dec 1963, pp 44-46.
JPRS 23876

North Vietnam General on Communist Morality, by
Song Hao, 6 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, 1 Feb 1964,
pp 1, 3.
JPRS 23747

Far East
Military

Central Unit of the KKO/Al as Creator of Training and
Combat Units, by Sjaiful Anwar Sjam, 5 pp.
INDONESIAN, per, Korps Komando, No 10, 1963,
Alusna Djakarta, Indonesia.
Navy 5845009264
(DIA)

Task and Consolidation, by J.G. Soepo Duto, 6 pp
INDONESIAN, per, Korps Komando, No 14, 15 Nov
1963, Alusna Djakarta, Indonesia.
Navy 5845008164
(DIA)

Artillery Party Chapter Struggles Against Fraud
and Falsification, by Thiet Hung, 5 pp.
VIETNAMESE, per, Hoc Tap, No 2, 1964.
JPRS 23990

Far East
Sociological

Promote Modern Drama, by Ho Ming, 5 pp.
CHINESE, per, Hung Ch'i, No 2, 3, 4 Feb 1964,
pp 58-60.
JPRS 23683

Modern Drama and Artistic Taste, by Wang Chao-wen,
6 pp.
CHINESE, per, Hung Ch'i, No 2, 3, 4 Feb 1964, pp 61-64.
JPRS 23683

Drive the American Aggressors Out of Panama, by
Sha Ting, 10 pp.
CHINESE, per, Hung-ch'i, No 2, 3 4 Feb 1964, pp 65-70.
JPRS 23683

The December 1956 Plenary Assembly that Culminated
in a Socialist Foundation, 8 pp.
KOREAN, np, Nodong Sinmun, 13 Dec 1963, p 1.
JPRS 23673

Temporary Regulations for the Signing of Collective
Contracts at State Owned Enterprises, by
Le Thanh Nghi, 12 pp.
VIETNAMESE, np, Lao Dong, 24 Dec 1963, pp 2, 3.
JPRS 23703

Resolution of the Vietnam General Confederation of
Labor for 1964, 25 pp.
VIETNAMESE, np, Lao Dong, 4 Jan 1964, pp 2, 3.
JPRS 23703

LATIN AMERICA

Economic

Issuance of Decree Regulating the Profits Remittance Law, 18 pp.
PORTUGUESE, rpt, 17 Jan 1964, Encl No 1 to Desp A-938, AmEmbassy, Rio De Janeiro.
Dept of State

Brazilian View of Soviet Economy, 5 pp.
PORTUGUESE, np, Jornal do Brasil, 2 Feb 1964, p 3.
JPRS 23866

Studies on Soil Prospects, 5 pp.
SPANISH, np, Hoy, 18 Feb 1964, p 2.
JPRS 23768

Chile's Report to the OAS on the use of Lauda River Water, 74 pp.
SPANISH, per, Memorial del Ejercito de Chile, May-June 1962, pp 87-148. (Call No Uncataloged No 308, 1962, Eng Tr)
Army Map Service

Confiscation of Purchase? 10 pp.
SPANISH, per, Panorama economico Latino-americano, Havana, May 1962, pp 4-7. (Call No 7, Eng Tr)
Army Map Service

Latin America Political

Purported Text of San Tiago Dantas Reform Plan and Brazilian Communist Party Comments Thereon, 16 pp.
PORTUGUESE, per, Tribuna da Imprensa and Novos Rumos, No 1, 1964, Encl to Desp A-905, AmEmbassy, Rio De Janeiro.
Dept of State

New Distribution of Automobile Spare Parts and Service Stations, 15 pp.
SPANISH, per, Gaceta Oficial, Vol LXII, No 5, 6 Jan 1964, pp 200-207.
JPRS 23712

Higher Goals for Productivity in the Year of the Economy, by Gustavo Mas, 5 pp.
SPANISH, np, Hoy, 15 Feb 1964, p 6.
JPRS 23712

Government Laws, Decrees, and Resolutions, 5 pp.
SPANISH, per, Nuestra Industria, Vol IV, No 2, 1964, pp 4-20.
JPRS 23870

Latin America Sociological

The Construction Union in Worker Education and Perfection of Work Standards, by Atoche Rondon, 6 pp.
SPANISH, np, Hoy, 4 Feb 1964, p 6.
JPRS 23687

WORLD WIDE

Economic

The International Bank for Economic Cooperation Has Begun Operation, by P. Noako, 8 pp.
RUSSIAN, per, Dengi i Kredit, No 1, 1964, pp 16-21.
JPRS 23989

The Legal Nature of the Recommendations Issued by the Council for Economic Mutual Aid, by Ye. T. Usenko, 11 pp.
RUSSIAN, per, Sovet Gosudarstvo i Pravo, No 12, 1963, pp 86-94.
JPRS 23989

Trade is a Road to Peace and Progress, by N. S. Patolichev, 6 pp.
RUSSIAN, np, Pravda, 6 March 1964, p 5.
JPRS 23989

Economic Cooperation Among Socialist Countries, by G. Isaakyan, 5 pp.
RUSSIAN, np, Kommunist, 1 Feb 1964.
JPRS 23989

Soviet Foreign Trade Discussed, by N. Harinov, 5 pp.
RUSSIAN, np, Ekonomicheskaya Gazeta, No 8, 22 Feb 1964, p 29.
JPRS 23989

SCIENTIFIC

Aerospace

Guided Ballistic Missiles and Their Engines, by G. S. Shchennikov, 12 pp.
RUSSIAN, per, Morskoy Sbornik, No 3, pp 67-74.
JPRS 24024

The Elektron Space System, by S. N. Vernov, 23 pp.
RUSSIAN, np, Pravda, 15 Mar 1964, p 3.
JPRS 23810

From the First Satellite to Group Flight, 9 pp.
RUSSIAN, np, Sovet Latvya, Oct 4, 1962, p 2. 9692127
FTD-TT-63-1081

Highly Radioactive Particles in the Atmosphere, by Antal Simon.
RUSSIAN, per, Vest Ak Nauk SSSR, Vol LXVII, No 5, Sep, Oct 1963, pp 287-289.
JPRS 23726

Vibrations of Missiles, by R. Valia.
FRENCH, rpt, Report on the Seventeenth Meeting of the Structures and Materials Panel on September 1963, Advisory Group for Aeronautical Research and Development.
*Redstone Arsenal

Analysis of Constraints by the Method of Cracking Varnish, by Benjamin Salmon.
FRENCH, per, Techniques et Science Aeronautiques, Vol VI, 1949, pp 343-352.
*Redstone Arsenal

Important Problems in the Theory of Stability and Control of Air-Craft, by T. Khakor.
RUMANIAN, per, Revue de Mecanique Appliquee, Vol VIII, No 2, 1963, pp 193-216.
*FTD-TT-64-396

Composite Aircraft Engines, by Fl. Zaganescu, 9 pp.
RUMANIAN, per, Stinta si Technica, No 5, 1961, pp 32, 33. 9692122
FTD-TT-63-957

Agriculture

The Hydrological Role of Forecasts, by A. A. Molchanov, 407 pp.
RUSSIAN, bk, Gidrologicheskaya Rol' Issa, 1960.
OTS 63-11089
PL-480

Use of Heterosis in Selection and Breeding of Productive Varieties of Sugar Beets With High Sugar Content, by T. F. Grin'ko.
RUSSIAN, bk, Sostizheniya Nauki i Peredovoi Opyt po Sveklovodstvu, 1961, pp 219-225.
*USDA

Scientific Agriculture (Contd)

Sukhoveis and Drought Control, by B. L. Dzerdzeevskiy, 366 pp.
RUSSIAN, bk, Sukhovei Ikh Proiskhozhdenie i Bor'ba Nimi, 1957.
OTS 63-11140
PL-480

Comparative Effectiveness of Nitrophoska and Mixtures of Common Fertilizers Under Localized Application to Corn and Millet, by V. S. Torin.
RUSSIAN, per, Dok Moskov Sel'skokh Ak imeni K. A. Timiryazeva, Vol LXIV, 1961, pp 15-18.
*USDA

Agricultural Effectiveness of the Principal Types of Mineral Fertilizers, by P. Baranov, 16 pp.
RUSSIAN, per, Mezh Sel'skokhoz Zhur, No 5, 1961, pp 25-34.
JPRS 24020

The Most Urgent Tasks of Agricultural Chemistry, by Z. I. Zhurbitskiy, A. V. Peterburgskiy.
RUSSIAN, per, Vest Ak Nauk SSSR, Vol XXXII, No 11, 1962, pp 76-79.
*USDA

Heterosis and Its Use in Grape Selection, by S. A. Pogosyan.
RUSSIAN, per, Vinodeliye i Vinograd S'SSR, Vol II, 1963, pp 20-27.
*USDA

Fertilizing System Based on Agricultural Chemistry Soil Maps, by A. L. Nakhmanovich, A. T. Ponomareva.
RUSSIAN, per, Zemledeliye, No 9, 1963, pp 42-46.
*USDA

A Contribution to the Problem of Identifying Canned Goods Made by Rehydrating Dried Peas, by T. Lovric, V. Jovic, et al, 9 pp.
CROATIAN, per, Prehrambena Industrija, No 8, 1963, pp 1545-1549.
ACSI I-4213-A
ID 2204005364

Economic Considerations on the Drying of Foodstuffs by Freezing, by Josko Simoncic, 14 pp.
CROATIAN, per, Prehrambena Industrija, No 8, 1963, pp 1550-1556.
ACSI I-4213-B
ID 2204005364

Final Report of the Investigating Committee of the Malpasset Dam, 159 pp.
FRENCH, rpt, Commission d'enquete du Barrage de Malpasset Rapport Definitif, Vol I, 1960.
OTS 63-11189/1
PL-480

Final Report of the Investigating Committee of the Malpasset Dam, 84 pp.
FRENCH, rpt, Commission d'enquete du Barrage de Malpasset Rapport Definitif, Vol II, 1960.
OTS 63-11189/2
PL-480

Some Morphological Observations on Plough Pans, by H. Frese, H. J. Altemuller.
GERMAN, , per, Grundlagen der Landtechnik, No 15, 1962, pp 10-14.
GB/141/140

Scientific
Agriculture (Contd)

Separation of Soil in Potato Harvesters Having Oscillating Riddles, by W. Baader.
GERMAN, per, Landtechnische Forschung, Vol XI, No 6, 1961, pp 160-164.
GB/141/132

Chlorine Content in Various Parts of the Tobacco Plant, by N. Honda.
JAPANESE, per, Bulletin of Kyushu Agricultural Research, No 21, 1959, pp 199, 200.
CSIRO/No 6341

Technological and Constructional Problems Concerning Mechanized Harvesting of Sugar Beets, by T. Karwowski, 100 pp.
POLISH, per, Roczniki Nauk Rolniczych, Vol LXVII, No 1, 1957, pp 1-100.
OTS 60-21569
PL-480

The Problem of Plowing Speed, by H. Bernacki, 22 pp.
POLISH, per, Roczniki Nauk Rolniczych, Vol LXVII, No 3, 1958, pp 357-381.
OTS 60-21569
PL-480

The Problem of Stability of Mounted Implements, by H. Bernacki, 80 pp.
POLISH, per, Roczniki Nauk Rolniczych, Vol LXVII, No 4, 1960, pp 419-509.
OTS 60-21569
PL-480

Utilization and Improvement of Saline and Alkali Soils, by N. Miljkovic, 91 pp.
SERBO-CROATIAN, bk, Iskoriscavanje i Popravljanje Slatina, 1955, 103 pp.
OTS 60-21619
PL-480

The Scientific Basis of the Struggle Against Erosion, by Aleksandar Petrovic, 362 pp.
SERBO-CROATIAN, bk, Naucne Osnove Borbe Protiv Erozije, 1955, 414 pp.
OTS 61-11202
PL-480

The Soils of Medjimurje and Their Use in Agriculture, by P. Kovacevic, M. Kurtagic, 74 pp.
SERBO-CROATIAN, bk, Tla Medjimurja i Njihovo Iskristavanje u Poljoprivredi, 1956, pp 1-73.
OTS 60-21622
PL-480

The Effect of Preceding Crops on the Yield of Winter Wheat and Corn, by L. Stojkovic, R. Savic, 10 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 34-50.
OTS 62-11755/4
PL-480

The Water Holding Capacity of Chernozems in Backa and the Water Constants Which Characterize Them, by V. Nejgebauer, 20 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 53-71.
OTS 62-11755/4
PL-480

Scientific
Agriculture (Contd)

The Catalytic Ability of Soil as a Differential Indicator in Pedogenetic Researches, by M. Gracanin, 8 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 74-82.
OTS 62-11755/4
PL-480

Aptitude to Acclimatization and Productivity of Black and hite Cattle Under Yugoslav Conditions, by D. Nikolic, B. Simovic, 22 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 105-125.
OTS 62-11755/4
PL-480

A Contribution to the Knowledge of the Properties of the Corn Varieties Rumaki Zlatan Zuban and Zuti Osmak, by V. Dordevic, 26 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 160-185.
OTS 62-11755/4
PL-480

The Density of Sowing as a Factor in Yield and Quality of the Most Important Yugoslav Tobacco Varieties, by R. Dimitrijevic, Z. Jankovic, 20 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 189-208.
OTS 62-11755/4
PL-480

Possibilities of the Application of Bacterial Fertilizers in Planting Rooted Grape Vine Crafts, by L. Avramov, M. Todorovic, 12 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 220-230.
OTS 62-11755/4
PL-480

Calibration of Wheat Seed and the Seed Value of Individual Fractions, by L. Babamov, P. Popovska, 7 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 211-217.
OTS 62-11755/4
PL-480

The Effect of Soil Maintenance System on the Mineral Nutrient Content in Leaves of Apple Trees in the Humid Alpine Region of Slovenia, by F. Adomic, 12 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 233-244.
OTS 62-11755/4
PL-480

A Contribution to the Study of the Fertility of Buds in the Better Known Varieties of Grape Vines in P. R. Montenegro, by M. Ulicevic, 22 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 247-267.
OTS 62-11755/4
PL-480

Conifer Communities in the P. R. of Macedonia, by Hans Em, 36 pp.
SERBO-CROATIAN, per, Bioloski Glasnik, Vol XV, No 1, 1962, pp 1-33.
OTS 62-11762/1
PL-480

Scientific
Biological & Medical Sciences

Keys to the Trematodes of Animals and Man, by
K. I. Skrjabin.
RUSSIAN, bk, 351 pp.
Univ of Ill Press

The Biological Action of High Energy Fast Neutrons
and Protons, by Yu. I. Moskalov, I. K. Petrovich,
31 pp.
RUSSIAN, bk, Biologicheskoe Deistvie Bystrykh
Neutronov i Protonov Vysokikh Energii, 1963,
pp 1-33. 9692125
FTD-TT-63-1049

A Miniature Radiotelemetric Apparatus for Recording
Physiological Functions, by L. P. Shuvatov, 9 pp.
RUSSIAN, bk, Elektronika v Meditsine, 1960, pp 177-182.
9692168
FTD-TT-63-1029

Introduction, by A. G. Safonov, 5 pp.
RUSSIAN, bk, Meditsinskaya Pomosh' Naseleniya
v RSFSR, Moscow, 1961, pp 5-9.
JPRS 23789

Organization of Emergency Medical and First Aid in
Cities and Workers Settlements of RSFSR, by
A. G. Safonov, 12 pp.
RUSSIAN, bk, Meditsinskaya Pomosh' Naseleniya v
RSFSR, Moscow, 1961, pp 104-117.
JPRS 23789

Stomatological Aid to the Population of the RSFSR,
by A. G. Safonov, 11 pp.
RUSSIAN, bk, Meditsinskaya Pomosh' Naseleniya v
RSFSR, Moscow, 1961, pp 338-348.
JPRS 23789

Conclusion, by A. G. Safonov, 8 pp.
RUSSIAN, bk, Meditsinskaya Pomosh' Naseleniya v
RSFSR, Moscow, 1961, pp 349-357.
JPRS 23789

Present Day Ideas Concerning Mechanisms of
Protection Against Radiation, by A. A. Gorodetskiy,
V. G. Baraboy, 9 pp.
RUSSIAN, bk, Protivoluchevyye Svoystva Gallatov,
1963, Kiev, pp 5-12.
JPRS 23834

Protective Action of Gallates During Experimental
Acute Radiation Sickness, by A. A. Gorodetskiy,
V. A. Baraboy, 27 pp.
RUSSIAN, bk, Protivoluchevyye Svoystva Gallatov,
Kiev, 1963, pp 41-65.
JPRS 23834

Therapeutic Action of Gallates, by A. A. Gorodetskiy,
V. A. Baraboy, 25 pp.
RUSSIAN, bk, Protivoluchevyye Svoystva Gallatov,
Kiev, 1963, pp 65-86.
JPRS 23834

Radioelectronics in Biology, by L. B. Kaminir, 81 pp.
RUSSIAN, bk, Radioelektronika v Biologii, 1962,
pp 1-56. 9692039
FTD-TT-63-830

Scientific
Biological & Medical Sciences (Contd)

Fauna and Flora of the Rivers Lakes and Reservoirs
of the USSR, by V. I. Zhadin, S. V. Gerd, 626 pp.
RUSSIAN, bk, Reki, Ozera i Vodokhranilishcha SSSR.
Ikh Fauna i Flora, 1961.
OTS 63-III66
PL-480

The Generation and Investigation of Field Doses for
Irradiation of Experimental Animals With
High-Energy Protons, by V. P. Afanas' yov,
I. B. Keirim-Markus, 23 pp.
RUSSIAN, bk, Sozdaniye i Issledovaniye Doznykh Doley
Dlya Oblucheniya Eksperimental'nykh Zhivotnykh
Protonami Bol'shoy Energii, 7-11 Oct 1963, pp 1-19.
9692177
FTD-TT-63-1048

Certain Concepts in the Study of Fertilizers, by
S. A. Kudrin.
RUSSIAN, per, Agrobiolog, No 5, 1962, pp 756-768.
*USDA

Use of Triploid Forms in Breeding High Yielding
Varieties of Mulberry Tree, by I. K. Abdullayev.
RUSSIAN, per, Agrobiolog, No 6, 1962, pp 861-865.
*USDA

The Nature of Electron Paramagnetic Resonance Spectra
of Amino Acids and Proteins Subjected to the Action
of Gamma Radiation and Light, by M. K. Pulatova,
O. A. Azizova, 9 pp.
RUSSIAN, per, Biophysika, Vol IX, No 1, 1964, pp 33-39.
JPRS 23983

The Possibility of Intertryptophan Migration of Energy
in Protein Systems, by S. V. Konev, M. A. Katibnikov,
et al, 6 pp.
RUSSIAN, per, Biophysika, Vol IX, No 1, 1964, pp 124-127.
JPRS 23991

Study of the Role of Various Peptide Chains of the
Antibody in the Antigen-Antibody Reaction, by
F. Franek, R. S. Nezhin, 12 pp.
RUSSIAN, per, Biokhimiya, Vol XXVIII, No 2, 1963,
pp 193-203. 9218149
NIH 2-19-64

The Role of Modern Botany in the Building of the
Communist Society and in the Raising of the Level
of Agriculture and Medicine in the USSR and the
Main Tasks it Confronts, by V. N. Sukachev,
A. A. Fedorov.
RUSSIAN, per, Botan Zhur, Vol XLIX, No 2, 1964,
pp 161-176.
*USDA

Heterosis and Its Significance for the Development of
Vegetable-Crop Breeding: A Survey of Literature, by
F. A. Tkachenko.
RUSSIAN, per, Botan Zhur, Vol XLIX, No 2, 1964,
pp 280-286.
*USDA

Study of the Electron Paramagnetic Resonance in
the Retina Upon Exposure to the Action of Light
by M. A. Ostrovskiy, 5 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLI, No 4,
1963, pp 986-988.
NIH 2-12-64

Scientific
Biological & Medical Sciences (Contd)

Algorithm for Optimizing Manufacture and Distribution of Non-Homogeneous Production, by B. S. Verkhovskiy, 7 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLII, No 3, 1963, pp 515-518.
JPRS 23806

Histochemical and Ultrastructural Changes of Receptor Cells of the Utricle Under Conditions of an Altered Gravitation Field, by Ye. A. Vinnikov, O. G. Gazenko, et al, 8 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLIII, No 2, 1963, pp 450-453.
JPRS 23837

Specified Biosynthesis of Antibodies Induced by Ribonucleic Acid From Lymphatic Nodes and Spleen of Immune Rabbits, by B. E. Fuks, I. V. Konstantinova, et al, 6 pp.
RUSSIAN, per, Dok Ak Nauk SSR, Vol CLIII, No 2, 1963, pp 485-488.
JPRS 23840

The Antispasmodic Properties of Some Derivatives of Benzoic and Diphenylacetic Acids, by V. S. Zalesov, 25 pp.
RUSSIAN, per, Farmakologiya i Toksikologiya, No 4, Jul-Aug 1963, pp 418-431.
JPRS 23792

The Effect of Cypenam and Pentaphen on the Central Nervous System. General Effect and Toxicity of the Preparations, by V. M. Avakyan, 19 pp.
RUSSIAN, per, Farmakologiya i Toksikologiya, Vol XXVI, No 5, 1963, pp 543-551.
JPRS 23792

The Relation Between Structure and Anesthetizing Activity of Some Esters of Aliphatic-Aromatic Alcohols, by Ye. A. Spalva, I. P. Pavlov, 12 pp.
RUSSIAN, per, Farmakologiya i Toksikologiya, Vol XXVI, No 3, 1963, pp 606-611.
JPRS 23792

On the Basic Philosophical Problems of Biological Cybernetics, by N. L. Gorbach.
RUSSIAN, per, Fiziol Zhur, Vol IX, No 2, 1963, pp 151-.
*FTD-TT-64-386

Floater Recording Device for Physiological Investigations, by V. G. Natski,
RUSSIAN, per, Fiziol Zhur, Vol IX, No 2, 1963, p 273.
*FTD-TT-64-386

On Recording Nystagmus by Means of a Transducer and Oscillograph, by V. T. Khlebas, N. P. Kozhukhar.
RUSSIAN, per, Fiziol Zhur, Vol IX, No 2, 1963, pp 274-.
*FTD-TT-64-386

Recent Advances in Cardiology Discussed, 5 pp.
RUSSIAN, np, Izvestiya, 12 Dec 1963, p 4.
JPRS 23811

Scientific
Biological & Medical Sciences (Contd)

Evaluation of the Trophic Characteristics of the Potato Stem Nematode, by S. G. Muge.
RUSSIAN, per, Iz Ak Nauk SSSR, Ser Biol, 1957, pp 357-359.
SACSIR/Ref: No 295

Biochemistry of Autotrophic Nitrogen Assimilation in Plants, by V. Kretovich.
RUSSIAN, per, Iz Ak Nauk SSSR, Ser Biolog, Vol V, 1962, pp 668-684.
CSIRO/No 6320

Electron-Microscopical Studies of Soil Suspensions, by D. I. Nikitin, S. B. Stefanov.
RUSSIAN, per, Iz Ak Nauk SSSR, Ser Biol, No 2, 1963, pp 283-285.
*USDA

Surgery of Burns, by T. Ya. Ar'yev, 22 pp.
RUSSIAN, per, Khirurgiya, No 12, 1963, pp 29-41.
JPRS 23794

Surgical Treatment of Burns, by R. I. Murazyan, L. I. Gerasimova, 9 pp.
RUSSIAN, per, Khirurgiya, No 12, 1963, pp 42-46.
JPRS 23794

The Use of Kapron Tissue and Porolon for the Reinforcement of Hemostatic Sutures of the Liver, by Ye. N. Meshalkin, 9 pp.
RUSSIAN, per, Khirurgiya, Vol XL, No 2, 1964, pp 81-86.
JPRS 23849

Clinical Preservation of Tissues and Bone Homoplasty, by V. M. Volkov, 11 pp.
RUSSIAN, per, Khirurgiya, Vol XL, No 2, 1964, pp 121-127.
JPRS 23849

Use of Mechanization in Larvian Industry, by F. Lekhtman, 6 pp.
RUSSIAN, per, Kommunist Sovet Larvi, No 12, 1963, pp 8-12.
JPRS 23846

Biological Rhythms and Astronautics, by Yu. Fedotov, Ye. Yudin, 7 pp.
RUSSIAN, np, Krasnaya Zvezda, No 212, (11817), 8 Sep, 1962, p 6. *9692163
FTD-TT-64-26

Today and Tomorrow in Electronics, by A. Smirnov, 5 pp.
RUSSIAN, per, Medit Rabot, 8 Apr 1960, p 3.
JPRS 23749

Relation Between Arterial Pressure Changes and the State of Certain Regulatory Mechanisms at Early Periods Following Ionizing Radiation, by A. N. Lanin.
RUSSIAN, per, Medit Radiolog, Vol VIII, No 8, 1963, pp 42-48.
*FTD-TT-64-329

Effect of Total Body Alpha Irradiation on Lipolytic Enzyme Induction by the Connective Tissue Cells, by F. L. Leytsef.
RUSSIAN, per, Medit Radiolog, Vol VIII, No 8, 1963, pp 54-58.
*FTD-TT-64-329

Scientific
Biological & Medical Sciences (Contd)

The Study of Bat Migrations in the USSR, by V. Pokrovskiy, Yu. Shchadilov.
RUSSIAN, per, Migratsii Zhivotnykh, Ak Nauk SSSR, No 3, 1962, pp 10-20.
CSIRO/No 6441

The Migrations of the Common Tern, by M. Lebedeva.
RUSSIAN, per, Migratsii Zhivotnykh, Ak Nauk SSSR, No 3, 1962, pp 87-91.
CSIRO/No 6440

New Data on Recoveries of Ringed Caspian Terns, by T. Shevareva.
RUSSIAN, per, Migratsii Zhivotnykh, Ak Nauk SSSR, No 3, 1962, pp 92-105.
CSIRO/No 6442

About Amablosia in Thousand Year Old Permafrost, by A. Ye. Kriss, N. A. Grave, 7 pp.
RUSSIAN, per, Mikrobiologiya, Vol XIII, No 5, 1944, pp 251-255. 9692172
FTD-TT-63-926

Selecting Spaceship Crew by Psychologists, by M. Novikov, 5 pp.
RUSSIAN, per, Nauka i Zhizn, No 9, 1963, 39-41.
JPRS 23853

New Method of Control of Pasture Ticks, by N. E. Grishayev, D. V. Matsev.
RUSSIAN, per, Otsevyodstvo, Vol VI, No 7, 1960.
NRC/Ref: C-4444

How the Life of Academician L. D. Landau Was Saved, by N. I. Grashchenkov, N. N. Anichkov, 6 pp.
RUSSIAN, per, Priroda, Vol LII, 1963, pp 106-108.
ABC-UCRL-Tr-1018(L)

Effect of Aqueous Ammonia on the Yield and Quality of Various Crops, by A. Ugarov, V. Panitskiy.
RUSSIAN, per, Sel'skoye Khoz Sibirii, Vol VI, No 4, 1959, pp 21-27.
*USDA

A Protein-Vitamin Complex Suitable for Alimentary Prophylaxis of Radiation Sickness, by A. A. Nozhenko, 6 pp.
RUSSIAN, per, Trudy Inst Ekspert i Klinicheskoy Meditsiny Ak Nauk Lat SSR, No 28, 1962, pp 83-86.
9691873
FTD-TT-63-1064

Effect of Gamma-Irradiation on the Thiamine and Riboflavin Content in the Liver and Brain and Vitamin B₁₂ in the Rat Liver Depending on the Nutritional Value of the Diet, by Kh. F. Bass-Shadkhan, 16 pp.
RUSSIAN, per, Trudy Inst Ekspert i Klinicheskoy Meditsiny Ak Nauk Lat SSR, Nauk Lat SSR, No 28, 1962, pp 117-128.
9691873
FTD-TT-63-1064

Measuring Pulsating Pressures With the Aid of Membrane Transducers, by Yu. G. Zakharov, 21 pp.
RUSSIAN, per, Tsentral'nyy Aero-Gidro Inst Promy Aerodinamika, Iz Vozdushnykh Potokov, No 19, 1960, pp 9-20. 9692050
FTD-TT-63-737

Latest Experimental Data on the Etiology of Leukoses, by V. M. Bergol'ts, 15 pp.
RUSSIAN, per, Uspekhi Sovremennoy Biol, Vol XLVII, No 3, 1959, pp 390-396. 9692129
FTD-TT-63-1171

Scientific
Biological & Medical Sciences (Contd)

Study of Nucleotide Sequence of Ribonucleic Acids, by Vlastimil Habermann, 34 pp.
RUSSIAN, per, Uspekhi Sovremennoy Biol, Vol LV, No 1, 1963, pp 9-33.
NIH 2-11-64

Tracheostomy in a Surgical Clinic, by F. G. Uglov, V. I. Strashnov, et al, 13 pp.
RUSSIAN, per, Vest Khir imeni I. I. Grekova, Vol XCI, No 12, 1963, pp 19-27.
JPRS 23765

Surgical Anatomy and Technique of Resection of the Lingular Segments of the Left Lung, by I. S. Kolesnikov, V. R. Vermolayev, et al, 8 pp.
RUSSIAN, per, Vest Khir imeni I. I. Grekova, Vol XCI, No 12, 1963, pp 27-32.
JPRS 23765

Organization of Emergency Surgery in a Rural Hospital, by R. L. Tsvang, 7 pp.
RUSSIAN, per, Vest Khir imeni I. I. Grekova, Vol XCI, No 12, 1963, pp 51-56.
JPRS 23765

Revival in a District Hospital, by L. M. Kim, 6 pp.
RUSSIAN, per, Vest Khir imeni I. I. Grekova, Vol XCI, No 12, 1963, pp 56-59.
JPRS 23765

The Department of Thoracic Surgery in a City Hospital, by I. I. Toshinskiy, 8 pp.
RUSSIAN, per, Vest Khir imeni I. I. Grekova, Vol XCI, No 12, 1963, pp 60-64.
JPRS 23765

Determination of Losses of Anhydrous Ammonia During Application, by M. A. Litvinov, F. V. Yanishevskiy.
RUSSIAN, per, Vestnik Sel'skokhoz, Nauk, Vol VII, No 3, 1962, pp 144-148.
*USDA

Cybernetics in Physiology and Medicine, by V. V. Parin, 17 pp.
RUSSIAN, per, Voprosy Filoz, No 10, 1961, pp 92-104.
JPRS 23749

An Analysis of Information Processing in the Human Brain, by A. V. Napalov, M. I. Bobneva.
RUSSIAN, per, Voprosy Psikhologii, No 6, 1962, pp 40-54.
*FTD-TT-64-337

Intracellular Inclusions in Hereditary Amyotrophic Lateral Sclerosis, by T. L. Bunina, 12 pp.
RUSSIAN, per, Zhur Nevro i Psikh imeni S. S. Korotkova, Vol LXII, No 9, 1962, pp 1293-1299.
JPRS 24023

Changes in the Stereotype of Conditioned Respiratory Reflexes and Respiratory Responses to CO₂ Under the Influence of Chlorpromazine, by Yu. N. Ivanov, Ye. I. Semeyko, 13 pp.
RUSSIAN, per, Zhur Vysschey Nervnoi Deyatelnosti, Vol XIII, No 4, 1963, pp 680-685. 9692027
FTD-TT-64-69

Scientific
Biological & Medical Sciences (Contd)

Change in Higher Nervous Activity and Some Vegetative Reactions During Prolonged Exposure to Conditions of Relative Adynamia and Isolation, by N. A. Agadzhanian, Yu. P. Bizin, et al, 15 pp.
RUSSIAN, per, Zhur Vyssh Nervnoy Deyatel, Vol XII, No 6, 1963, pp 953-961.
JPRS 23833

Conditioned Inhibition in Dogs With a Unilaterally Removed Thalamus, by L. N. Gavrilova, 10 pp.
RUSSIAN, per, Zhur Vyssh Nervnoy Deyatel, Vol XIII, No 6, 1963, pp 1039-1045.
JPRS 23833

Migrations and Distribution in Spring and Summer of Marine Birds in the South-Eastern Part of the Bering Sea, by V. Shuntov.
RUSSIAN, per, Zool Zhur, Vol XI, No 7, 1961, pp 1058-1069.
CSIRO/No 6438

Discovery of Siphonophore Nectopyramis Diomeda Bigelow, 1911 in the Arctic Basin, by S. D. Stepan'yants, 6 pp.
RUSSIAN, per, Zool Zhur, Vol XLII, No 12, 1963, pp 1866-1869.
JPRS 23758

Fresh Water Hydrobiology Limnology in the German Democratic Republic, by V. I. Zhadin, 13 pp.
RUSSIAN, per, Zool Zhur, Vol XLII, No 12, 1963, pp 1892-1897.
JPRS 23758

Psychiatry in the Soviet Union, by Nikola Persic.
CROATIAN, per, Licnicksi Vjesnik, Vol LXXXV, No 7, 1963, pp 747-758.
*FTD-TT-64-259

Adaptation of Physiological Characteristics of Homiothermal Conditions Against Cold, by L. Jansky.
CZECH, per, Ceskoslovenska Fysiologie, Vol XII, No 2, 1963, pp 106-125.
*FTD-TT-64-445

Preparation of a Leukocyte Suspension and Its Clinical Use, by Klara Bila, 8 pp.
CZECH, per, Vnitřní Lekarství, Vol VIII, No 12, 1962, pp 1279-1283.
NIH 2-25-64

Subaortic Stenosis of the Myostenotic Type, by J. Snoeck, 5 pp.
DUTCH, per, Belgisch Tijdschrift voor Geneeskunde, Vol XIX, 1963, pp 648-653.
NIH 2-13-64

The Psychological and Epistemological Application of the Neo-Hullian Experiments of Dr. Berlyne, by J. Piaget, 16 pp.
FRENCH, bk, Theorie du Comportement et Operations, Presses Universitaires de France, Paris, 1960, pp 105-123.
NIH 2-16-64

Scientific
Biological & Medical Sciences (Contd)

The Residual Moisture of Lyophilization Products, by L. Rey, 39 pp.
FRENCH, rpt, Third International Lyophilization Course, 17-28 Jul 1962.
NIH 2-26-64

Note on a Caribbean Sea Phyllamphion, by G. Belloc.
FRENCH, per, Bulletin de L'Institut Océanographique, 1959, pp 1-10.
CSIRO/No 6468

Veninous Asystolism in Left Heart Hypertrophy, by Bernheim, 18 pp.
FRENCH, per, Revue de Medecine, Vol XXX, 1910, pp 785-801.
NIH 2-20-64

Determining the Lean Content of Ham by Means of K⁴⁰ - Gamma Activity Determinations, by A. Pfau, 14 pp.
GERMAN, per, Atompraxis, Vol VII, 1961, pp 279-284.
NIH 2-3-64

N-Pyridinium Sulfonic Acid. Second Report on the Degradation of Pyridine to Form Glutaconyl Dialdehyde, by P. Baumgarten, 6 pp.
GERMAN, per, Berichte der Deutschen Chemischen Gesellschaft, Vol LIX, 1926, pp 1166-1169.
NIH 2-14-64

Comparative Investigations on the Spread of the Diarrhea Virus and the Parainfluenza Three Virus in Cattle in Southwest Germany, by K. Bogel, 12 pp.
GERMAN, per, Berliner und Münchener Tierärztliche Wochenschrift, Vol LXXVI, No 6, 1963, pp 101-105.
NIH 2-23-64

Concerning the So-Called Husk-Glumes of Barles and Lyme-Grass, by M. Schenck.
GERMAN, per, Botanische Jahrbucher fuer Systematik Pflanzengeschichte und Pflanzengeographie, No 40, 1908, pp 97-113.
NRC/Ref: C-4486

Influence of Genes and Gibberellins on the Blossom Formation of Arabidopsis Thaliana Klaus Napp-Zinn.
GERMAN, per, Deutsche Botanische Gesellschaft, Bericht, No 76, 1963, pp 77-88.
GB 39/HO 1818

The Planning of Therapeutic Tests in Research on Arteriosclerosis, by G. Schettler, 12 pp.
GERMAN, per, Method Information of Medicine, Vol II, No 3, 1963, pp 90-94.
NIH 2-2-64

On the Planning of Therapeutic Trials in Multiple Sclerosis, by E. Weite, 18 pp.
GERMAN, per, Method Information of Medicine, Vol II, No 3, 1963, pp 95-100.
NIH 2-1-64

Role of Auxin in the Epinastic Curvature of Plagiotropic Lateral Shoots of Coleus Blumei Benth, by H. Leike, H. Guttenberg.
GERMAN, per, Planta, Vol LVIII, No 5, 1962, pp 453-470.
CSIRO/No 6404

Scientific
Biological & Medical Sciences (Contd)

- Eosinophile Encephalomenigitides, by
A. F. Essellier, 23 pp.
GERMAN, per, Schweizerische Medizinische
Wochenschrift, Vol LXXXVII, No 26, 1957,
pp 822-828.
NIH 2-15-64
- On the Smooth Endoplasmic Reticulum of the
Liver Cell, by W. Toenes, 6 pp.
GERMAN, per, Verhandlungen der Deutschen
Gesellschaft fuer Pathologie, Vol XLVI, 1962,
pp 202-206.
NIH 2-7-64
- Laws of Polygenic Hereditary Characteristics in
Man, by F. Kelter, 18 pp.
GERMAN, per, Z fuer Morphologie und Anthropologie,
Vol XLVI, No 2, 1954, pp 170-183.
NIH 2-4-64
- Investigations of Rapid ATP Reactions in Aqueous
Solution by Means of Relaxation Spectrometry, by
H. Diebler, 13 pp.
GERMAN, per, Z fuer Naturforschung, Vol XVb, 1960,
pp 554-560.
NIH 2-21-64
- Diseases that do not Occur in Java or are unusual.
A Contribution to the Geomedicine of Java, by
C.H.J. Brockelmann, 19 pp.
GERMAN, per, Z fuer Tropen Medizin, West Germany,
April 1962, pp 67-77. (Call No W128629 National Library
of Medicine, Eng Tr)
Army Map Service
- Reports of Gynecological Meetings. Enzymology of
Obstetrics, by G. Doderlein, 9 pp.
GERMAN, per, Zentralblatt fur Gynakologie,
Vol LXXXII, No 46, 1960, pp 1791-1796.
NIH 2-17-64
- Contribution to the Study of Traumatic Hemobilia,
by Raimondo Bariatti, 7 pp.
ITALIAN, per, Chirurgia e Patologia Sperimentale,
No 11, 1955, pp 887-896.
ACSI 1-4331
ID 2204007064
- Experimental Studies on the Formation of Blister
Cells in *Aspergillus Oryzae*, by Tetsu Sakamura.
JAPANESE, per, Journal of Faculty of Science,
Mokkaido Imperial University, Vol 1, No 1, 1930,
pp 1-25.
GB/39/Ph
- Studies of the Production of Normal Bactericidal
Antibodies, by Y. Yamaguchi, 15 pp.
JAPANESE, per, Nippon Saikingaku Zasshi, Vol XVIII,
No 1, 1963, pp 44-51.
NIH 2 24-64
- Studies on the Biological Effects of 31 MeV Electrons,
by Tadeusz Rudnicki, 11 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6,
1962.
OTS 62-11063
PL-480

Scientific
Biological & Medical Sciences (Contd)

- Investigations on the Functions of the Internal Carotid
Arteries, by G. Mchedlishvili, T. Garbulinski, 9 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6,
1962.
OTS 62-11063
PL-480
- Adrenalin and Noradrenalin Content in Blood Plasma
in Hemorrhagic and Histaminic Shock, by
Wieslaw Holobur, 12 pp.
POLISH, per, Acta Physiologica Polonica, Vol XIII,
No 6, 1962.
OTS 62-11063
PL-480
- Experimental Studies on the Penetration of ¹³¹I-Labelled
Albumin From the Blood into the Small Intestine Lumen,
by Swiatoslaw Ziemlanski, Stanislaw Lipinski, 7 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6, 1962.
OTS 62-11063
PL-480
- Studies on the Reactivity of Vater-Pacini Corpuscles,
Part II., by Michal Maloffejow, 7 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6,
1962.
OTS 62-11063
PL-480
- Studies on the Reactivity of Vater-Pacini Corpuscles,
by Michal Maloffejow, 10 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6,
1962.
OTS 62-11063
PL-480
- The Mechaniam of Electropherographic Changes in
Blood Serum Proteins Under the Influence of Physical
Training, by Wieslaw Romanowski,
Leokadia Lubanska-Tomaszewska, 11 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6,
1962.
OTS 62-11063
PL-480
- The Circulatory Effects of the Glutamic Acid Administra-
tion in Experimental Animals, by Aleksandra Mazurowa,
Aleksander Mrozikiewicz, 9 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6, 1962.
OTS 62-11063
PL-480
- Glutathione and Ascorbic Acid Contents in Blood
Muscles and Liver of Guinea Pigs in Hypothermia,
by Zenon Jendykiewicz, Wanda Rozynek-Lukanowska,
6 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6, 1962.
OTS 62-11063
PL-480
- Studies on the Control of the Mitotic Activity in White
Mice, by Danuta Dziekanowska, Andrzej Nowak, 6 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6,
1962.
OTS 62-11063
PL-480
- Adaptability to Low Temperatures as Criterion for
Determination of Physiological Age, by Boleslaw Zlotnicki,
6 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6, 1962.
OTS 62-11063
PL-480

Scientific
Biological & Medical Sciences (Contd)

The Effect of Intermittent Pressure Breathing With Counter Pressure on the Arterial and Venous Blood Pressures, by Zbigniew Jethon, 11 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6, 1962.
OTS 62-11063
PL-480

Some Remarks on the Use of Jansen's Apparatus for Making Sections From Teeth and Bones for Microscopic Study, by J. Zarzycki, 5 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

The Use of Chlorinated Polyvinyl Chloride in Anatomical Studies on Blood Vessels and Ducts, by B. Goetzen, 5 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

Nucleic Acids, Glycogen and Lipids in the Embryonic Development of the Vibrissae in the White Rat, by A. Myśliwski, T. Michalik, 8 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

The Role of Alkaline Phosphatase and Phospholipids in the Growth and Differentiation of the Lungs of White Rat Embryos, by H. Zawistowska, S. Zawistowski, 9 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

Attempts of Bone Induction by Heterogenous Grafts of Urinary Bladder Mucosa, by M. Zaleski, T. Krassowski, 7 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

The Morphological Basis of Protein Synthesis, by M. Wawrzyniak, 14 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

Histochemical Investigations of Human Transitional Epithelium, by M. Zaleski, T. Krassowski, 5 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

The Influence of the Spleen on Iron Stores in Livers of C-57-BL Mice, by K. Schneiberg, S. Krzyzowska, 10 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

Cytological and Histochemical Studies on the Oocytes in Hibernating Spiders of the Genus Clubiona, by A. Bylina, 15 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

Scientific
Biological & Medical Sciences (Contd)

Studies on the Structure of Arteriovenous Anastomoses in the Choroid Plexuses of the Lateral Ventricles of the Brain, by J. K. Pogorzelski, 6 pp.
POLISH, per, Folia Morphologica, Vol XXII, No 1, 1963.
OTS 63-11413
PL-480

Cortisone Analogues in the Treatment of Congestive Heart Failure, by M. Edelman, 20 pp.
POLISH, per, Kardiologia Polska, Vol V, No 4, 1962.
OTS 63-11409
PL-480

Effect of Microwaves Emitted by Radar Transmitters on the Origination of Cataracts, by Wladyslaw Pol, 15 pp.
POLISH, per, Lekarz Wojskowy, No 4, 1962, pp 318-327.
9692048
FTD-TT-63-1070

Investigations on Slow a Rhythm in Schizophrenia, by K. Jus, 5 pp.
POLISH, per, Neurologia, Neurochirurgia i Psychiatria Polska, Vol XII, No 1, 1963.
OTS 63-11409
PL-480

Studies on External Manifestations of Internal Speech, by E. Herman, W. Krolkowska, 7 pp.
POLISH, per, Neurologia, Neurochirurgia i Psychiatria Polska, Vol XII, No 1, 1963.
OTS 63-11409
PL-480

Acinous Adenocarcinoma of the Salivary Gland, by L. Sikorowa, 11 pp.
POLISH, per, Nowotwory, Vol XII, No 3, 1962.
OTS 63-11409
PL-480

Studies on Factors Responsible for the Effectiveness of Radiation Treatment of Endometrial Cancer, by L. Tarlowska, L. Sikorowa, 11 pp.
POLISH, per, Nowotwory, Vol XII, No 3, 1962.
OTS 63-11409
PL-480

CA47 Turnover in Healthy Man, by Z. Malinowski, J. Szymendera, 6 pp.
POLISH, per, Nowotwory, Vol XII, No 4, 1962.
OTS 63-11409
PL-480

Anatomopathological Changes in the Livers of Mice Infected With Severova Virus Isolated From a Patient With Epidemic Hepatitis, by J. Szczudrawa, J. Georgiades, 6 pp.
POLISH, per, Patologia Polska, Vol XII, No 4, 1962.
OTS 63-11409
PL-480

The Relationship Between Listeriosis and Infectious Mononucleosis According to Our Own Observations, by H. Kawecka-Duros, M. Krotochwil-Skrzypkova, 12 pp.
POLISH, per, Pediatrica Polska, Vol XXXVII, No 12, 1962.
OTS 63-11409
PL-480

Scientific
Biological & Medical Sciences (Contd)

The Influence of Disodium Calcium Versenate
CaNa₂EDTA on Serum Alkaline Phosphatase Activity,
by S. Kosmider, 6 pp.
POLISH, per, Polskie Arch Medy Wewnętrznej, Vol XXXII,
No II, 1962.
OTS 63-11409
PL-480

Importance of Cardiographic Examinations in
Evaluating the Function of the Air-Chamber, by
H. Chlebus, 9 pp.
POLISH, per, Polskie Archiwum Medycyny Wewnętrznej,
Vol XXXIII, No I, 1963.
OTS 63-11409
PL-480

The Role of Aldosterone in the Maintenance of
Water-Electrolyte Balance, by K. Gibinski, E. Kokot,
7 pp.
POLISH, per, Polski Tygodnik Lekarski, Vol XVII,
No 1, 1963.
OTS 63-11409
PL-480

Cytological and Histological Study on Cantharidin
Induced Blisters, by Z. Ruszcak, L. Wozniak, 7 pp.
POLISH, per, Przegląd Dermatologiczny, Vol XLIX,
No 5, 1962.
OTS 63-11409
PL-480

Tissue Culture of Skin Cells of Adults and Fetuses,
by F. C. Jensen, A. Pawlowski, 8 pp.
POLISH, per, Przegląd Dermatologiczny, Vol XLIX,
No 6, 1962.
OTS 63-11409
PL-480

Pyodermia Chancriformis Acuta, by K. Lejman,
7 pp.
POLISH, per, Przegląd Dermatologiczny, Vol L, No 1,
1963.
OTS 63-11409
PL-480

Toxic Epidermal Necrolysis Lyell, by J. Lebiada,
M. Lijowska, 10 pp.
POLISH, per, Przegląd Dermatologiczny, Vol L, No 1,
1963.
OTS 63-11409
PL-480

Comparative Studies on the Animal Skin Innervation in
the Embryologic Development of Human Fetus as
Well as in Some Pathological Conditions and Skin Nevi,
by A. Pawlowski, 8 pp.
POLISH, per, Przegląd Dermatologiczny, Vol L, No 2,
1963.
OTS 63-11409
PL-480

Studies on the Keratinomyces Ajelloi Vanbreuseghem,
1952 Isolated From the Soil, by H. Prochacki,
S. Bielunaka, 8 pp.
POLISH, per, Przegląd Dermatologiczny, Vol L, No 5,
1963.
OTS 63-11409
PL-480

Traumatic Hemobilia, by Fabio Schmidt Goffi,
Synesio Oliveira Borges, et al, 7 pp.
PORTUGUESE, per, Revista Paulista de Medicina,
Vol LIV, No 6, 1959, pp 423-430.
ACSI I-4338
ID 2204007764

Scientific
Biological & Medical Sciences (Contd)

Fishes of the Adriatic, by T. Soljan, 428 pp.
SERBO-CROATIAN, bk, Institut za Oceanografiju i
Ribarstvo FNR Jugoslavije, Fauna et Flora Adriatica,
Vol I, 1948, 437 pp.
OTS 60-21661
PL-480

Investigations of Poliomyelitis in Serbia II. Comparative
Clinical and Virological Diagnosis of the Poliomyelitis
Syndromes in Epidemic Cases in 1956, by R. Djoric,
M. Motic, 12 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 247-261.
OTS 62-11760
PL-480

Certain Characteristics of the Microscopic Structure
of the Main Nervous Networks in the Digestive Tract,
by J. G. Cankovic, 8 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 265-273.
OTS 62-11760
PL-480

The Serological Manifestations of Latent Infections and
Recurrences of Epidemic Typhoid Fever, by
B. Zivkovic, M. Simic, 11 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica, Vol XVI,
No 3, 4, pp 276-288.
OTS 62-11760
PL-480

Polarographic Analysis of Blood Serum Proteins
III. Polarographic Characteristics of Denatured
Fractions of Rabbit Serum Proteins, by Ljiljana Sevaljevic,
8 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 290-299.
OTS 62-11760
PL-480

Antibodies Against Some Arbo-Viruses and Against
the Bedsonian Antigen in Sera of Men, Sheep, and Cattle
in Bosnia and Herzegovina, by A. L. Terzin,
S. Matuka, 12 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 301-313.
OTS 62-11760
PL-480

A Contribution to the Study of the Contraction of the
Skeletal Muscles, by Radmilo P. Anastasijevic, 6 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 318-323.
OTS 62-11760
PL-480

A Contribution to the Study of Skeletal Muscle Contraction,
by Radmilo P. Anastasijevic, 6 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 327-334.
OTS 62-11760
PL-480

The Release of Radioiodine I¹³¹ by Potassium Perchlorate
and Potassium Thiocyanate From the Thyroid Gland
and Other Tissues, by V. Dolgova-Korubun, G. Sestakov,
8 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica,
Vol XVI, No 3, 4, pp 336-344.
OTS 62-11760
PL-480

Scientific
Biological & Medical Sciences (Contd)

Investigations of Chronic Endemic Nephropathy in Yugoslavia, by J. Gaon, R. C. Griggs, 5 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica, Vol XVI, No 3, 4, pp 346-351.
OTS 62-11760
PL-480

A Contribution to the Biochemistry of Acute Keratoconus, by Ivan Stankovic and Dobrosav Cvetkovic, 5 pp.
SERBO-CROATIAN, per, Acta Medica Jugoslavica, Vol XVI, No 3, 4, pp 354-359.
OTS 62-11760
PL-480

New Manifestations of Superparasitism in Fungi, by M. Josifovic, D. Stojanovic, 11 pp.
SERBO-CROATIAN, per, Arhiv Za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 7-17.
OTS 62-11755/4
PL-480

Some Mutations Obtained Through Irradiation of Seed Of Some Species of Triticum, 12 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 20-30.
OTS 62-11755/4
PL-480

The Stabilization of the Composition of Fleece of Karakul and Its Cross-Breeds, by J. Belic, 25 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 84-103.
OTS 62-11755/4
PL-480

Food Efficiency in Fattening Young Bulls Experiments in Yugoslavia, by C. Obracevic, 10 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 128-136.
OTS 62-11755/4
PL-480

Problems of the Origin and Classification of Phytopathogenic Bacteria, by Z. Tesic, 19 pp.
SERBO-CROATIAN, per, Arhiv za Poljoprivredne Nauke, Vol XV, No 50, 1962, pp 138-157.
OTS 62-11755/4
PL-480

The Effect of Hydrogen Ion Concentration on the Permeability of the Erythrocyte Membrane for Phosphate Ions, Controlled by Radioactive Phosphate P-32, by M. Radotic, V. Ninkov, 5 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4397

The Effect of X-Rays on the Activity of Acid Deoxyribonuclease in Urine, Serum, Bone Marrow, and Liver in Normal and Splenectomized Rats, by M. Jovanovic, A. Voncina, 10 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4397

Scientific
Biological & Medical Sciences (Contd)

The Effect of Post-Irradiation Bleeding on the Hematological Regeneration and Survival of Irradiated Mice, by S. Hajdukovic, V. Nikov, 11 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol XIV, No 4, 1963, pp 236-246.
AEC-Tr-5737/4

A Contribution to the Epidemiology of Primary Herpetic Infection, by M. Juretic, 16 pp.
SERBOCROATIAN, per, Lijechnicki Vjesnik, Vol LXXXII, 1960, pp 383-393.
NIH 2-9-64

Fatal Herpes, Herpes Simplex Generalisatus, by M. Juretic, 5 pp.
SERBOCROATIAN, per, Lijechnicki Vjesnik, Vol LXXXII, 1960, pp 632-634.
NIH 2-8-64

Preparatory Works for the Flora of Slovenia II, III, by E. Mayer, 54 pp.
SLOVENIAN, bk, Slovenska Akademija Znanosti in Umetnosti, Vol III, 1958, pp 3-65.
OTS 61-11242
PL-480

A Contribution to the Knowledge of the Flora of the Western Julian, by E. Mayer, 63 pp.
SLOVENIAN, bk, Slovenska Akademija Znanosti in Umetnosti, Vol IV, 1958, pp 5-38.
OTS 61-11243
PL-480

The Child in the Glass Ball, by Karin Stensland Junker.
SWEDISH, bk, 256 pp.
Abingdon Press

Subcutaneous Traumatic Liver Injuries, by Rudolf Brandberg, 9 pp.
SWEDISH, per, Nordisk Medicinsk Tidskrift, Vol IV, No 9, 24 Sep 1932, pp 712-717.
ACSI I-4332
ID 2204007164

Scientific
Chemistry

Evaporation Under Natural Conditions, by M. I. Budyko, 130 pp.
RUSSIAN, bk, Isparenie v Estestvennykh Usloviyakh, 1948.
OTS 63-11061
PL-480

Evaporation Norms From Water Reservoirs, by
A. P. Braslavskiy, Z. A. Vikulina, 218 pp.
RUSSIAN, bk, Normy Ispareniya s Poverkhnosti
Vodokhranilishch, 1954.
OTS 63-11064
PL-480

Self-Ignition Flame and Detonation in Gases, by
A. S. Sokolik, 458 pp.
RUSSIAN, bk, Samovosplamnenie, Plamya i Detonatsiya
v Gazakh, 1960.
OTS 63-11179
PL-480

Uranium Region in the U-Al-Fe Constitution Diagram,
by D. K. Khakimova, O. S. Ivanov.
RUSSIAN, bk, Stroenie i Svoystva Splavov Urana, Toriya
i Tsirkoniya, 1963, pp 16-21.
*AERE-Harwell

Disintegration of Solid Solutions of U-Nb and U-Nb-Zr
Alloys, by Yu. S. Virgil'yev, O. S. Ivanov.
RUSSIAN, bk, Stroenie i Svoystva Splavov Urana, Toriya
i Tsirkoniya, 1963, pp 109-115.
*AERE-Harwell

The Influence of the Adsorption of Foreign Substances
on the Growth of Crystals, by G. Bliznakov,
E. Kirkova.
BULGARIAN, per, Izvestiya na Bulgarskata Akademiya
na Naukite, No 4, 1954, pp 133-147.
CSR

On the Growth Forms of Crystals and the Influence
of Adsorption on the Linear Speed of Crystallization,
by G. Bliznakov, E. Kirkova.
BULGARIAN, per, Izvestiya na Bulgarskata Akademiya
na Naukite, No 4, 1954, pp 153-163.
CSR

Colorimetric Determination of Resorcinol in
Industrial Waste Waters and Phenolic Products,
by J. Janak, L. Matousek.
CZECH, per, Chemické Listy, Vol XLVIII, 1954,
pp 1176-1180.
GB/242

Gas Chromatography of Monobasic Phenols, by
J. Janak, et al.
CZECH, per, Chemické Listy, Vol LII, 1958,
pp 2296-2310.
GB/242

Identification of Food Dyes by Light Absorption
Measurements in the Visible and in the Ultraviolet
Regions of Light, by A. Shokolay, A. Pagachova, 10 pp.
CZECH, per, Průmysl Potravin, Vol XII, 1961,
pp 656-658. 9692211
DDC R5IC-124

Determination of Oxygen in Uranium Monocarbide by
Vacuum Hot Extraction, by A. Colombo, 10 pp.
FRENCH, rpt, 1963.
AEC-NP-Tr-1091

Scientific
Chemistry (Contd)

Early Life of Concrete: Linear Variations During the
First Day, by M. K. Thiel.
FRENCH, per, Annales Institut Technique du Batiment
et des Travaux Publics, No 13 (154), 1954, pp 1001-1007.
GB/114/0887

The Analysis of Complex Decay Curves, by K. E. Seyb.
FRENCH, per, Radiochimica Acta, Vol I, No 3, 1963,
pp 167-170.
*AERE-Harwell

Lower Silicon Halogenides at High Temperatures,
by H. Schafer, 7 pp.
GERMAN, rpt, International Union of Pure & Applied
Chemistry Colloquium, 1954, pp 24-28.
9217943
ACSIL Tr 1429

Some N-Substituted Dimethyl-Diamino-Silanes
and Related Compounds, by Erik Larsson,
Bengt Smith, 7 pp.
GERMAN, per, Acta Chemica Scandinavica, Vol III,
1949, pp 487-492. 9692084
DDC R5IC-139

Activities in the System Calcium Oxide - Phosphoric
Acid at 1650° C, by K. Schwerdtfeger, H. J. Engell.
GERMAN, per, Archiv fuer Eisenhüttenwesen,
Vol XXXIV, No 9, 1963, pp 647-652.
BISI 3519

Thin-Layer Electrophoresis and Its Application to the
Separation of Phenols and Phenolic Acids, by
G. Pastuska, H. Trinks.
GERMAN, per, Chemiker Zeitung, Vol LXXXV, 1961,
pp 535-538.
*AEC

Investigations With the Aid of Thin-Layer Electro-
phoresis, by G. Pastuska, H. Trinks.
GERMAN, per, Chemiker Zeitung, Vol LXXXVI, 1962,
pp 135-138.
*AEC

Systox Information -- Application of the Test Tube
Technique in Toxicological Chemistry, by Karl Grosskopf,
6 pp.
GERMAN, per, Chemiker-Zeitung -- Chemische
Apparatur, Vol LXXXIII, No 4, 1959, pp 115-117.
ACSI T-4335
ID 2204007464

Alkali Metal Compounds of 2, 3, 4, 6 -tetra-O-
methyl-D-glucopyranose and 1, 3, 4, 6 -tetra-O-
methyl-D-fructofuranose and Their Use in Glycoside
and Disaccharide Syntheses, by H. Bredereck,
E. Hambach.
GERMAN, per, Chemische Berichte, Vol LXXXVII, 1954,
pp 38-45.
CSIRO/No 6389

Scientific
Chemistry (Contd)

- Isonitriles, Preparation of Isonitriles From Monosubstituted Formamides by Means of Dehydration, by Ivar Ugi, Rudolf Meyr, 12 pp.
GERMAN, per, Chemische Berichte, Vol XCIII, 1960, pp 239-248. 9692209
DDC RSIC-127
- Contribution to the Knowledge of N,N'-Bis(trimethylsilyl)-Tetramethylcyclodisilazane and of Other 4-Membered Rings Containing Silicon and Nitrogen, by Walter Fink.
GERMAN, per, Chemische Berichte, Vol XCVI, No 4, 1963, pp 1071-1079.
*Redstone Arsenal
- Thin-Layer Ionophoresis and Thin-Layer Ionophoresis-Chromatography, by C. G. Honegger.
GERMAN, per, Helvetica Chimica Acta, Vol XLIV, 1961, pp 173-179.
*AEC
- Synthesis of Methionine, by W. Wilmanns, et al.
GERMAN, per, Hoppe Seyler's Z fuer Physiologische Chemie, Vol CCCXXII, 1962, pp 283-287.
CSIRO/No 6287
- Non-Dispersive X-Ray Spectrometry. Applications to Elementary Chemical Analysis, by G. Seibel.
GERMAN, per, International Journal of Applied Radiation and Isotopes, Vol XV, Jan 1964, pp 25-41.
*AEC
- Effect of Centrifuging on the Viscosity of Living Protoplasm, by E. Kuster.
GERMAN, per, Kolloid Z, Vol LXXXIX, No 2, 1939, pp 237-238.
CSIRO/No 6597
- Flow of Rubber-like Polymers and Stocks Based on Them With Carbon Black, by N. V. Zakharenko, et al.
GERMAN, per, Kolloid Z, Vol XXII, No 2, 1960, pp 168-175.
GB/57/884
- On the Influence of the Chemical Nature of the Surface of Carbon Black Upon the Interaction With Rubber and Sulphur and Upon the Kinetics of Vulcanisation, by B. A. Dogadkin, et al.
GERMAN, per, Kolloid Z, Vol XXII, No 6, 1960, pp 663-670.
GB/57/886
- A Study of Caustic Embrittlement of Boilerplates, by G. T. Athavale, W. Ellender.
GERMAN, per, Korrosion und Metallschutz, Vol XVI, 1940, pp 127-132.
*AEC
- Elementary Fibrils of Cellulose, by A. Frey-Wyssling, K. Muhlethaler.
GERMAN, per, Die Makromolekulare Chemie, No 62, 1963, pp 25-30.
CSIRO/No 6496
- Vitality of Culture Yeast, a Function of Aerobiosis, by F. Weinfurter.
GERMAN, per, Naturwissenschaften, Vol XLIX, No 2, 1962, pp 44, 45.
NRC/Ref: C-4465

Scientific
Chemistry (Contd)

- Use of the Electrical Glow Discharge for the Pretreatment of Polyethylene, by H. Fronlich.
GERMAN, per, Siemens Z, Vol XXXV, No 5, 1961, pp 397-400.
GB/57/1077
- Chromatographic Procedures in Organic Chemistry, by Gerhard Hesse.
GERMAN, per, Z fuer Analytische Chemie, Vol CLXXXI, 1961, pp 274-283.
*AEC
- Thin-Layer Chromatography, by Egon Stahl.
GERMAN, per, Z fuer Analytische Chemie, Vol CLXXXI, 1961, pp 303-312.
*AEC
- The Quantitative X-Ray Fluorescence Analytical Determination of Potassium, Rubidium, Strontium, Barium, Titanium, Zirconium and Phosphorus, by Paula Hahn-Weinheimer, Helmuth Ackermann, 21 pp.
GERMAN, per, Z fuer Analytische Chemie, Vol CXCV, 1963, pp 81-101. 9692082
DDC RSIC-137
- Increase in the Acidity of Boric Acid by the Addition of Neutral Salt. A New Method for the Titrimetric Determination of Boric Acid, by Harold Schafer.
GERMAN, per, Z fuer Anorganische und Allgemeine Chemie, Vol CCXLVI, 1941, pp 149-157.
*AEC
- Activation of Boric Acid With Polyhydroxy Compounds and the Volumetric Methods for the Determination of the Activated Boric Acid, by Harold Schafer.
GERMAN, per, Z fuer Anorganische und Allgemeine Chemie, Vol CCXLVII, 1941, pp 96-112.
*AEC
- Phase Growth Controlled by Diffusion, by H. L. Frisch.
GERMAN, per, Z fuer Elektrochemie, Vol LVI, No 4, 1952, pp 324-326.
*BISI 3638
- Correlations Between Destruction of Micro-Organisms and Inactivation of Enzymes Under Heat Treatment, by M. Lubieniecka-Schelhorn.
GERMAN, per, Z fuer Lebensmittel-Untersuchungen Und-Forschung, Vol CXVI, No 4, 1962, pp 349-360.
CSIRO/No 6517
- Properties of Vaporised InSb and InAs Films, by K. G. Gunther, H. Freller, 7 pp.
GERMAN, per, Z fuer Naturforschung, Vol XVIa, No 3, 1961, pp 279-283.
ACSIL Tr 1448
- On the Nature of the Changes Observed in Stored, Carrier Free Na¹³¹I Solutions, by O. Eichler, M. Hoebel, et al, 19 pp.
GERMAN, per, Z fuer Physiologische Chemie, Vol CXXVII, 1962, pp 135-143.
AEC-NP-Tr-1092
- Investigation of the Preparation of Alkyd Resins Containing Boron, by G. F. Nenocetti, A. Lucchesi.
ITALIAN, per, Annali di Chimica, Vol LII, No 7, 1962, pp 546-563.
GB/39/Pa

Scientific
Chemistry (Contd)

Transformation of Homologues of Indole Into Quinoline Derivatives, by G. Magnanini.
ITALIAN, per, Gazzetta Chimica Italiana, Vol XVII, 1887, pp 246-254.
*AERE-Harwell

Preparation of Glucose-6-Phosphate Uniformly Labelled With ^{14}C , by L. Longinotti, F. Pocchiari.
ITALIAN, per, Gazzetta Chimica Italiana, Vol LXXXIV, 1954, pp 1171-1176.
*AERE-Harwell

Preparation of Glucose-6-Phosphate Uniformly Labelled With ^{14}C , by P. Betto, L. Longinotti.
ITALIAN, per, Gazzetta Chimica Italiana, Vol XCIII, 1963, pp 1191-1193.
*AERE-Harwell

A New Method for the Preparation of Colloidal Chromic Phosphate. Study of the Mechanism of Formation and Biological Behaviour, by B. Bellion, G. Buchi, et al, 36 pp.
ITALIAN, per, Minerva Nucleare, Vol VI, 1962, pp 199-208.
ARC-NP-Tr-1089

Light Scattering, Viscosity and Sedimentation of Polyacrylic Acid in Various Salt Solutions, by A. Takahashi, et al.
JAPANESE, per, Journal of the Chemical Society, Vol LXXXIII, No 8, pp 873-878.
CSIRO/No 6504

α , α -Diphenyl- β -Picrylhydrazyl as Radical-Scavenger, by Sigeru Kiriya, Toshiyuki Kasabo.
JAPANESE, per, Yuki Gosei Kagaku Kyokaiishi, Vol XV, 1952, pp 510-517.
*Redstone Arsenal

Characteristics and Evaluation of Strongly Alkaline Anion Exchangers I. Investigation Methods of Exchange Capacity and Polyfunctionality, by Zofia Blaszkowska, Rajmund Dybczynski, 25 pp.
POLISH, per, Przemysl Chemiczny, Vol XXXVIII, No 3, 1959, pp 168-175.
OTS 61-11373
PL-480

Characteristic Parameters of Sintering as Measures of the Effect of Compacting Pressure on the Sintering of Uranium Dioxide, by M. M. Ristic, S. Radic, 9 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol XIV, No 4, 1963, pp 197-205.
ABC-Tr-5737/4

Influence of the Aromatic Nucleus Furan on the Dehydration of Polyhydroxylated Chains, by F. Gonzalez, C. Sequeiros.
SPANISH, per, Anales de Fisica y Quimica, Vol XLIB, 1945, pp 1463-1484.
CSIRO/No 6449

Structure on Mauerer's Glucosidone. Influence of the Aromatic Nucleus on the Dehydration of Poly-alcoholic Chains, by A. Gomez-Sanches.
SPANISH, per, Anales de Fisica y Quimica, Vol LB, 1954, pp 431-440.
CSIRO/No 6559

Scientific
Earth Sciences & Astronomy

Elimination of the Regional Gravity Field in the Region of the Ukrainian Salt-Bearing Structures, by L. V. Petrov.
RUSSIAN, bk.
ACIC

Platform Part of the Ukrainian SSR.
RUSSIAN, bk, Geologiya SSSR, Vol V, Moscow, 1958, pp 55-58.
ACIC

Underwater Acoustics in the Navy, by A. L. Postakov, 124 pp.
RUSSIAN, rpt, Gidroakustika v Voenno-Morskoy Flote, Technical Report No 64-2, Jan 1964. 9691992
Navy Tr 3751/ONI 983

Graphs and Maps for Estimating Climatic Characteristics of Variable Application for the European Part of the USSR, by A. N. Lebedev, 116 pp.
RUSSIAN, bk, Grafiki i Karty Dlya Rascheta Klimaticheskikh Kharakteristik Razlichnykh, Leningrad, 1960, pp 3-5; 7-17; 19-84; 116.
ACSI I-4319
ID 2204006764

Fundamental Gravity Base Stations in the USSR, by V. A. Sorokin.
RUSSIAN, bk, Gravimetriya i Gravimetricheskaya Razvedka, Moscow, 1951, p 92.
ACIC

Computations of the Deflections From the Vertical in the Moscow Region's Gravity Anomaly Area, by V. A. Sorokin.
RUSSIAN, bk, Gravimetriya i Gravimetricheskaya Razvedka, Moscow, 1951, pp 365-366.
ACIC

Plutonic Geophysical Investigations on the Territory of the Baltic Shield, by Yu. N. Grachev, M. Ya. Dekhnich, et al.
RUSSIAN, rpt, International Geological Congress, Twenty First Session, 1960, pp 43-49.
ACIC

Structures of the Earth's Crust of the Kola Peninsula According to Seismic Data, by G. D. Panasenko.
RUSSIAN, rpt, International Geological Congress, Twenty First Session, 1960, pp 51-55.
ACIC

Structure of the Earth's Crust of the Transcaucasian-Caspian Depression According to Geophysical Data, by B. K. Balavadze, G. K. Tvaltvadze.
RUSSIAN, rpt, International Geological Congress, Twenty First Session, 1960, pp 82-89.
ACIC

Possible Schemes on the Structure of the Crystalline Foundation, by Ye. N. Lyustikh.
RUSSIAN, rpt, Sovetskaya Geologiya, Collection 28, 1948.
ACIC

Stellar Astronomy, by Wlodzimierz Zonn, Konrad Rudnicki, 573 pp.
RUSSIAN, bk, Zvednaya Astronomiya, Moscow, 1959, pp 1-448.
JPRS 23821

Scientific
Earth Sciences & Astronomy (Contd)

Comparison of Color and Coefficient of Brightness, by
N. P. Barabashev, A. T. Chekirda.
RUSSIAN, per, Astron Zhur, Vol XXXIII, No 4, 1956,
pp 549-555.
*Redstone Arsenal

The Meridional, Aerological Cross Section Between
the Tropics of the Northern and Southern Hemisphere,
by L. A. Zhdanov, 6 pp.
RUSSIAN, per, Bulleten Sovetskoi Antarkticheskoi
Ekspeditsii, No 22, 1960, pp 32-35. 9692005
Emmanuel Coll Res Lang Cir
E-T-R-63-12

The Nature of Gravitation, by V. V. Radzyevskiy,
I. I. Kagal'nikova.
RUSSIAN, per, Byul Vses Astronomo-Geodezicheskoy
Obshch, Vol LXII, No 33, 1959, pp 3-14.
*FTD-TT-64-323

Aftershocks of Central Baykal Earthquake of
29 August 1959, L. A. Misharina.
RUSSIAN, per, Geologiya i Geofizika, No 2, 1961,
pp 106-110.
ACIC

Registration of PS Waves in the Baykal Region, by
S. I. Golonetakiy, 7 pp.
RUSSIAN, per, Geol i Geof, No 11, 1963, pp 132-134.
JPRS 23771

On the Connection of the Magnetic Field in the Atlantic
With the Relief of the Ocean Floor, by M. M. Ivanov,
6 pp.
RUSSIAN, per, Geomagnet i Aeron, Vol III, 1963,
pp 781-783.
ABC-SC-Tr-535

New Possibilities for the Use of Aerial Photograph
Survey Materials in Glaciological Research, by
G. D. Cheremnykh, 10 pp.
RUSSIAN, per, Iz Ak Nauk SSSR Seria Geograf,
1963, No 6, pp 8994. (Call No G23 I95 I96 No 6, Eng Tr)
Army Map Service

Applicability of the Law of Normal Distribution of
Random Values to the Determination of Wind
Characteristics in the Free Atmosphere, by S. V.
Solonin, Yu. M. Liberman.
RUSSIAN, per, Problemy Fiz Atmos, No 1, 1963,
pp 60-70.
*FTD-TT-64-357

On the Problem of Gravimetric, Pendulum, Study
of Caucasus, by M. S. Abakelya.
RUSSIAN, per, Problemy Sovetskoy Geol, No 6,
1936.
ACIC

Results of the Gravimetric Expedition in the
Region Poltava-Akhtyrka, by N. A. Popov.
RUSSIAN, per, Razvedka i Okhrana Nedr, No 10, 11,
1939.
ACIC

The Determination of Astronomic Points Along the
Rivers Biryusa and Ussolka in the East Siberian Kray
in 1927, by S. Ya. Belykh.
RUSSIAN, per, Sbornik Nauchno-Tekhnicheskikh
Orchetov po Rabotam Glavnogo Geodezicheskogo
Upravleniya za 1927, Moscow, 1936, pp 82-91.
ACIC

Scientific
Earth Sciences & Astronomy (Contd)

Calculation of the Evaporation From Reservoirs, by
P. P. Kokoulin, G. L. Yatsentkovskiy, 16 pp.
RUSSIAN, per, Sbornik Rabot Tsimlyanskoi Gid Obser,
No 1, 1958, pp 135-148.
OTS 63-11145
PL-480

Forecasting Jet Streams, by N. N. Bel'skaya, 13 pp.
RUSSIAN, per, Trudy Tsentral Instituta Prognozov,
No 125, 1963, pp 3-12.
JPRS 23754

Layout of Disjunctive Dislocations by the Method
of Reflected Sea Waves, by S. P. Vartanov,
V. A. Kornev.
RUSSIAN, per, Trudy Vses Nauchno-Issled Inst
Geofizika, No 29, 1959, pp 14-35.
ACIC

Tectonic Conformities in Orography and the River
Net of the Russian Plain, by K. I. Gerenchuk.
RUSSIAN, per, Uchenyye Zapiski L'vivsk Univ,
Vol XX, 1960, pp 31-37.
ACIC

Concerning the Problem on Determination of
Absolute Gravity Value, by N. P. Grushinskiy,
N. B. Sazhina.
RUSSIAN, per, Vest Moskov Univ, No 2, 1959,
pp 61-68.
ACIC

Petrographic Characteristic of the Mesozoic Coal
Gearing Deposits in the Atyusskaya Depression, by
M. M. Bezhayev.
RUSSIAN, per, Voprosy Geologii Urals, Mineralog
i Geokhimiya, No 42, 1939, pp 193-201.
ACIC

Determination by Telegraph of Astronomic Point
in Vernyy City, Alma Ata, by P. N. Dolgov,
A. J. Petrenko.
RUSSIAN, per, Zapiski Voronezhskogo Seiskokhoz
Inst, Vol V, 1928.
ACIC

Relative Gravity Determination in Finland in
1937, by T. Honkasalo.
FINNISH, rpt, Suomen Geodeettisen Laitoksen
Julkaisuja, Helsinki, 1941.
ACIC

Beyond Time, by Michel Siffre.
FRENCH, bk, 228 pp.
McGraw-Hill Book Co

Preparatory Field Trip to Greenland, 1948. VII.
Gravimetric Studies Made on Inland Ice.
FRENCH, rpt, Campagne Preparatoire au Groenland,
1948, Paris, 1954, pp 33-44.
ACIC

Preparatory Field Trip to Greenland, 1948. IX.
Attempt to Interpret the Preceding Results.
FRENCH, rpt, Campagne Preparatoire au Groenland,
1948, Paris, 1954, pp 34-39.
ACIC

Preparatory Field Trip to Greenland, 1948. X.
Conclusions.
FRENCH, rpt, Campagne Preparatoire au Groenland,
1948, Paris, 1954, pp 39-41.
ACIC

Scientific
Earth Sciences & Astronomy (Contd)

Report on the Works of the National Geographic Institute; 1960.
FRENCH, rpt, Exposé des Travaux de l'Institut Géographique National Année 1960, pp 1-23; 31-33.
ACIC

Connection of the Belgian and German Triangulations, by R. Meures.
FRENCH, rpt, La Jonction des Triangulations Belge et Allemande, Brussels, 1937.
ACIC

Meteorological Material for Atmospheric Probing, 20 pp.
FRENCH, bk, Matériel Meteorologique pour les Sondages de l'Atmosphère, Paris, 1962, pp 1-21. (Call No Atch 3 IR 183225863, Eng Tr)
Army Map Service

New Researches on the Moon, by A. Dollfus.
FRENCH, per, Transactions of the French Astronomic Society, Oct, Nov, 1961, pp 373-392; 419-426.
ACIC

Chart Index South-Eastern Europe Southern Part - Bulgaria.
GERMAN, rpt, Berlin, August 1943.
ACIC

Determination of the DGH, Potsdam, Coordinated for Bulgaria.
GERMAN, rpt, Berlin, March 1944.
ACIC

Diagrams for Estimating the Applicability of Chimney Heights to Air Purification Conditions, by F. Wippermann, 43 pp.
GERMAN, rpt, Technische Hochschule Darmstadt, Institut für Meteorologie. 9692010
Emmanuel Coll Res Lang Cir
E-T-G-63-27

On the Reduction of the Photographic Positions and Proper Motions of Stars, by Heinrich Eichhorn.
GERMAN, per, Astronomische Nachrichten, Vol CCLXXXV, No 5, 6, 1939.
ACIC

Report on the Operations Conducted From 1912 to 1954, by M. Kneissel.
GERMAN, per, Deutsche Geodätische Kommission, Serie B: Angewandte Geodäsie, 1954.
ACIC

Calibration of Gravimeters With Standard Weights, by K. Ramsayer.
GERMAN, per, Deutsche Geodätische Kommission, Serie B: Angewandte Geodäsie, No 16, 1957.
ACIC

A Procedure for Determining Minimum Chimney Heights, by F. Wippermann, W. Klug, 32 pp.
GERMAN, per, International Journal of Air and Water Pollution, Vol VI, 1962, pp 27-48. 9692008
Emmanuel Coll Res Lang Cir
E-T-G-63-29

Scientific
Earth Sciences & Astronomy (Contd)

Concerning the Photogrammetric Plotting of the Affine Deformed Patterns, by Karl Hubeny.
GERMAN, per, Vermessungstechnik, Vol IX, No 3, 1961, pp 73-79.
ACIC

Determination of the Horizontal Derivatives From the Free-Air Anomalies of Gravity, by S. Heitz.
GERMAN, per, Vermessungstechnik, Vol IX, No 10, 1961, pp 376-382.
ACIC

On the Origin of the Planetary System, by C. F. von Weizsacker, 36 pp.
GERMAN, per, Z fuer Astrophysik, Vol XXII, 1944, pp 319-353. 9692083
DDC RSIC-138

Analysis of Air Pressure Influence on Worden Gravimeters, by R. Brein, K. Gerke.
GERMAN, per, Z fuer Vermessungswesen, Vol LXXXVI, No 2, 1961, pp 33-36.
ACIC

Nomenclature of Submarine Relief Features, by L. Damiani.
ITALIAN, bk, The Topography and Geology of the Depths of Oceans, Vol LXXXII, Nice-Villefranche, 1958, pp 221-231.
ACIC

Absolute Gravity: Present Status and Metrological Requirements, by Carlo Morelli.
ITALIAN, per, Bollettino di Geodesia e Scienze Affini, Vol XIX, No 4, 1960, pp 685-692.
ACIC

A Detailed Gravity Survey in the Pontine Lowland, by Giuseppe Tribalto.
ITALIAN, per, Bollettino del Servizio Geologico d'Italia, Vol LXXIV, No 2, 1953, pp 525-533.
ACIC

Measurements of Gravity in the Apulian Provinces, by Gaetano Zaccara.
ITALIAN, per, Bollettino del Servizio Geologico d'Italia, Vol LXXV, No 2, 1953, pp 863-909.
ACIC

The Effects of Mountains on Air Currents, by Adriano Gazzola, 20 pp.
ITALIAN, per, Rivista di Meteorologia Aeronautica, No 1, 1963. 9690941
DDC RSIC-131

Carriage of Detritus in River and Stream Beds, by Artur Born, 43 pp.
POLISH, per, Wiadomości Sluzby Hydrologicznej i Meteorologicznej, Vol VI, No 2, 1958, pp 1-29.
OTS 61-31295
PL-480

A New Contribution to the Study of Dacite Rocks Near Maglaj, by F. Trubelja, J. Panic, 10 pp.
SERBO-CROATIAN, per, Geoloski Glasnik, 1956.
OTS 60-21643/2
PL-480

Geological Characteristics of the Brown Coal Basin of Zenica, by Mihajlo Jeremic, 11 pp.
SERBO-CROATIAN, per, Geoloski Glasnik, 1956.
OTS 60-21643/2
PL-480

Scientific
Earth Sciences & Astronomy (Contd)

A Short Review of the Barite Deposits in Bosnia and Herzegovina, by Mehmed Ramovic, 20 pp.
SERBOCROATIAN, per, Geoloski Glasnik, 1956.
OTS 60-21643/2
PL-480

Bournonite in the Barite Occurrence of Rimaka Jama Near Kresevo, by Ivan Jurkovic, 18 pp.
SERBO-CROATIAN, per, Geoloski Glasnik, 1956.
OTS 60-21643/2
PL-480

Geology of the Region Around the River Trebianjica, 18 pp.
SERBO-CROATIAN, per, Geoloski Glasnik, 1956.
OTS 60-21643/2
PL-480

A New Iron Meteorite (Octahedrite - Ogg) Found in Bosnia on Mount Ozren Between Tuzla and Doboj, by Mehmed Ramovic, 29 pp.
SERBO-CROATIAN, per, Geoloski Glasnik, 1956.
OTS 60-21643/2
PL-480

The Rome-Barcelona Connection in the European Gravimetric Network, by C. Morelli, L. Lozano.
SPANISH, per, Geophysical Review, No 77, 1920.
ACIC

Relative Gravity Measurement in South and Central Sweden in 1943-1944. X. On the Precision of Gravity Measurements in the Years 1943-1944, by Bror Wideland.
SWEDISH, rpt, Relative Schweremessungen in Sudund Mittelschweden in den Jahren 1943-1944, Stockholm, 1946, pp 103-113.
ACIC

A New Display of the Swiss Projection System, by H. Odermatt.
SWISS, bk, Zurich, 1961.
ACIC

Electronics

Use of the Method of Polynomial Equations in the Synthesis of Discrete Systems, by M. R. Yelistratov.
RUSSIAN, per, Avtomatika i Telemekhanika, Vol XXIV, No 11, 1963, pp 1474-1486.
*FTD-TT-64-333

Aircraft Today -- Spacecraft Tomorrow, by N. Krutov, 9 pp.
RUSSIAN, per, Grazh Aviat, No 7, 1963, pp 18, 19.
9692138
FTD-TT-63-1134

Determination of Dynamic Processes in Piecewise Linear Automatic Control Systems, by K. K. Balya, 21 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tech Nauk Energet i Avtom, No 3, 1962, pp 163-172. 9220621
NASA TT F-132

Scientific
Electronics (Contd)

Treatment of Two-Electron Transitions in Th, by L. V. Chiplis, K. K. Ushpalia, 7 pp.
RUSSIAN, per, Trudy Ak Nauk Litovskoi SSR, Seriya B, Vol II, No 25, 1961, pp 31-39.
OTS 63-11135
PL-480

Calorimetric Apparatus for Measuring Thermal Processes Over Long Time Periods, by M. I. Voskoboinikov, A. P. Kubantsev, 10 pp.
RUSSIAN, per, Zhur Fiz Khim, Vol XXXII, 1958, pp 460-464. 9220446
AEC-UCRL-Tr-1022(L)

On the Electric Breakdown of Dielectrics, by J. G. Nekrasevic, J. A. Bakuto, 10 pp.
CZECH, per, Ceskoslovensky Casopis pro Fysiku, Vol XII, 1962, pp 383-389.
AEC-SC-Tr-532

Formation of Cathode Spots and Current Density Distribution in Cathode Spots of Short-Time-Intensity Electric Discharge, by E. Ziska, 13 pp.
CZECH, per, Ceskoslovensky Fiz Zhur, No 10, 1960, pp 327-333. 9692137
FTD-TT-63-1071

C.T. Metox Model Radiosonde, 13 pp.
FRENCH, bk, Radio, sonde Type C. T. Metox, Paris, Jun 1960, pp 1-15. (Call No Atch 1 IR 183235863, Eng Tr)
Army Map Service

Series Production of Photomultipliers; Technology and Measures of Control, by E. Morilleau, 23 pp.
FRENCH, per, Acta Electronica, Vol V, 1961, pp 39-51.
AEC-UCRL-Tr-1013(L)

A.C. Measurement of the Dielectric Leakages and Capacitances of Multi-Core Cables, by K. W. Wagner, 12 pp.
GERMAN, per, Elektrotechnische Zeitschrift, Vol XV, 1912, pp 635-637.
AEC-NP-Tr-1098

A Contribution to the Protection of Remotely-Supplied Coaxial Cable Systems Against the Effects of High Currents, by H. Sell, E. Widl.
GERMAN, per, Nachrichtentechnische Z, Vol XI, No 6, 1963, pp 569-571.
*AERE-Harwell

On the Theory of the Parametric, Single-Diode Amplifier With a Subsidiary Circuit and Two Pumps, by Hermann Mahr.
GERMAN, per, Nachrichtentechnische Z, No 12, 1963, pp 630-634.
*Redstone Arsenal

The Disintegration Pitch of Fuse Wires in Quartz-Sand, by Jan Nasliowski, 4 pp.
POLISH, per, Przegląd Elektrotechniczny, Vol XXXVIII, 1962, pp 264-265. 9692006
Emmanuel Coll Res Lang Ctr
E-T-P-63-2

Soviet Studies in the Field of the Electrooptical Range Finders, by Stanislaw Kasperek, Jerzy Krezemin'ski.
POLISH, per, Przegląd Geodezyjny, Vol XXXIV, No 3, 1962.
ACIC

Scientific
Engineering

Infrared Equipment for Missile Homing, by
L. Z. Kriksunov, I. F. Usol'tsev. (NY-9147)
RUSSIAN, bk, Infrakrasnyye Ustroystva Samonavedeniya
Upravlyayemykh Snaryadov, Moscow, 1963, pp 1-240.
*JPRS

The RTA-60 Page Teletype, by V. V. Nokikov, 10 pp.
RUSSIAN, bk, Inzhenerno-Tekhn Spravo po Elektrosvyazi,
Telegrafiya, Moscow, 1963, pp 222-229.
JPRS 23836

Heat Exchange in the Melting of Ice, by A. G. Tkachev,
7 pp.
RUSSIAN, bk, Ledutermicheskiye Voprosy v Gidroeener-
getike, Moscow, 1954, pp 159-164.
JPRS 24019

Production of Concrete Work for Navigation Structures,
by A. G. Brodin, 7 pp.
RUSSIAN, bk, Opyt Stroitel'stva Novosibirskogo
Gidrouzla, 1960, pp 103-108. 9691688
ACSI T-3336-A
ID 2246285

Experience in Three-Year Operation of the Lock,
by I. G. Romanov, 8 pp.
RUSSIAN, bk, Opyt Stroitel'stva Novosibirskogo
Gidrouzla, 1960, pp 189-195. 9691688
ACSI T-3336-C
ID 2246285

Protection of Transformer Insulation From
Humidification and the Stabilization of Transformer
Oil Properties, by A. A. Koz'ma.
RUSSIAN, per, Elektricheskii Stanitsi, No 11, 1961,
pp 76-79.
GB/153/625

Turbulent Boundary Layer on an Axisymmetrical Body
Rapidly Revolving in an Axial Flow, by L. A. Dorfman,
9 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Orden Tekhn Nauk,
Mekh i Mash, No 4, 1962, pp 18-22. 9692174
PTD-TT-63-1137

Automatic Control of Grain Combineharvesters,
by V. G. Dymnich.
RUSSIAN, per, Mekh i Elek Sotsialisticheskogo
Sel'skogo Khozyaystva, No 4, 1956, pp 23-26.
GB/141/137

New Methods in Moscow Experimental Building
Work, by G. Pavlov, 11 pp.
RUSSIAN, per, Stroitel, No 8, 1963, pp 3-6.
NLL Tr Bulletin
Vol VI, No 2, 1964

The Similarity Theory and Its Application to Thermal
Engineering, by S. G. Telctov.
RUSSIAN, per, Trudy Moskovskogo Instituta Inzhenerov
Zheleznodorozhnogo Transporta, Vol CXXXIX, 1961,
pp 31-44.
*Redstone Arsenal

Bulk Flour Handling, by G. Renaud.
FRENCH, per, Meunerie Francaise, No 156, 1960,
pp 23-31.
GB/114(anon)/1056

Automation of a Blast Furnace, by P. Dancoisne.
FRENCH, per, Revue de Metallurgie, Vol LX,
March 1963, pp 215-236.
*BISI 3649

Scientific
Engineering (Contd)

Improvements of Aerial-Beacon Installations,
Particularly of Those Having a Beacon Supported
by at Least One Paired Air Screw, by
H.P.G.A.R. von Zborowsky, 19 pp.
FRENCH, Belgium Patent No 569,094, 1961. 9692086
DDC RSIC-141

Notch Effect on Bars Subjected to Bending, by
Georg Fischer.
GERMAN, bk, 1932.
*Redstone Arsenal

Solved and Unsolved Problems of Measurement Process
in Quantum Mechanics, by G. Ludwig, 38 pp.
GERMAN, rpt, Werner Heisenberg and Contemporary
Physics, Brunswick, 1961, pp 150-181.
ABC-Tr-6292

Steam Turbine Heat Cycle Calculations, by R. Zena.
GERMAN, per, Brennstoff-Warme-Kraft, Vol XV,
No 2, 1963, pp 75-79.
GB/10/3060

Statistical Noise Measurements in Road Traffic,
by R. Martin.
GERMAN, per, Deutsche Kraftfahrforchung.
GB/47

Study of Friction Pairs, by P. Kossler, G. Hollman.
GERMAN, per, Deutsche Kraftfahrforchung, No 160,
1962.
GB/47

Windage Noise in Electric Machines, by H. Rentzsch.
GERMAN, per, Elektrotechnische Z, Vol LXXXII,
No 24, 1961, pp 792-798.
GB/153/624

About the Pressure Loss in Vent Pipes With Built-In
Installations - A Contribution to Ventilation in Mining,
by E. Hubner.
GERMAN, per, Forschung auf dem Gebiete des
Ingenieurwissens, Vol XIX, No 1, 1953, pp 1-16.
*Redstone Arsenal

Photoelastic Analysis of Streamline Fillers, by
A. Thum, W. Bautz.
GERMAN, per, Forschung Ingenieurwissen, Vol VI,
No 6, 1935, pp 269-273.
*Redstone Arsenal

Tests on Stress-Relieving Undercuts, by S. Berg.
GERMAN, per, Forschung Ingenieurwissen, Vol XII,
No 4, 1941, pp 205-206.
*Redstone Arsenal

Stress Conditions in Circular Sawblades and Their
Effect on Working Behaviour, by E. Barz.
GERMAN, per, Holz als Roh- und Werkstoff, Vol XX,
No 10, 1962, pp 393-397.
CSIRO/No 6433

Hardening and Annealing of Steel Wire and Strip.
GERMAN, per, Technik und Betrieb, Vol XIV,
No 3, 1962, pp 42, 43.
BISI 3489

On the Question of the Theoretical Stress-Concen-
tration Factor, by A. Thum, W. Bautz.
GERMAN, per, Vereines Deutscher Ingenieure Z.
Vol LXXIX, No 43, 1935, pp 1303-1306.
*Redstone Arsenal

Scientific
Engineering (Contd)

Fatigue Life of High-Strength Bolted Joints, by H. Wiegand, K. H. Ilgner.
GERMAN, per, Verein Deutscher Ingenieure Zeitschrift, Vol CIV, No 9, 1962, pp 1275-1281.
BISI 3084

On the Influence of Deposits in Tubes on the Hydraulic Pressure Drop, by Wilhelm Wiederhold.
GERMAN, per, Z des Deutschen Vereins von Gas und Wasserfachmannern, Vol XC, No 24, 1949, pp 634-641.
*Redstone Arsenal

The History of Concrete Techniques as Seen Through the Microscope, by G. M. Idorn, 12 pp.
GERMAN, per, Zement Beton, Vol XVIII, 1960, pp 1-10.
AEC-NP-Tr-1078

Guard-Cap Brush-Plug, by Ottmar Schnepf, 5 pp.
GERMAN, Patent No 1,025,478, 6 Mar 1958.
AEC-SC-Tr-530

Survey on Thermal Contact Resistance, by Konomo Sonokama.
JAPANESE, per, Journal of the Japan Society of Mechanical Engineers, Vol LXIV, No 505, 1961, pp 34-44.
*Redstone Arsenal

Experimental Results of the Investigation of Flow Through Cascades of Turbine Blades With a High Degree of Reaction at Supersonic Velocity,
POLISH, per, Polska Ak Nauk Instytut Maszyn Przeplywowych Prace, No 13, 1963, pp 19-36.
*FTD-TT-64-389

Electromotive Force Induced in Ferromagnetic Wire by Oscillatory Magnetic Field Parallel to the Wire, by Roman Skoraki.
POLISH, per, Prace Instytutu Mechaniki Precyzyjnej, Vol VIII, No 29, 1960, pp 1-12.
*Redstone Arsenal

Effect of Some Strength Characteristics of Target Materials on the Depth of Penetrating With Shaped Charges, by Wiktor Babul.
POLISH, per, Prace Instytutu Mechaniki Precyzyjnej, Vol IX, No 34, 1961, pp 11-24.
*Redstone Arsenal

Principles of Magnetoheat Treatment of Steel, by Roman Skoraki.
POLISH, per, Prace Instytutu Mechaniki Precyzyjnej, Vol IX, No 34, 1961, pp 37-50.
*Redstone Arsenal

Zero Energy Reactor RB, by D. Popovic, S. Takac, 9 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke Boris Kidric, Vol IX, 1959.
AEC-Tr-4597

Calculation of the Regulation Elements of the Branch and the Main Channel of the Danube in the Section of Vel Ratno Ostrvo, for the Variant With an Active Branch, by Mladen Boreli, Stevan Bruck, 14 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Dams and Stabilization of the Beograd Lake Level, by Mladen Boreli, M. Todorovic, 14 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Scientific
Engineering (Contd)

Hydraulic Analysis and Model Testing of the Sava River at Ada Ciganlija, by Stevan Bruck, 18 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Hydraulic Calculations for Regulation Measures With the Closure of the Danube Branch Near Deograd, by Stevan Bruck, Mladen Boreli, 10 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Model of the Belgrade Confluence, by Mladen Boreli, 12 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Stability of River Structures in the Section of Veliko Ratno Ostrvo After the Closure of the Branch Channel, by Stevan Bruck, 22 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Survey of the Methods of Experimental Investigations of Mechanical Characteristics of the Rock in Yugoslavia, by Branislav Kujundzic, 22 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

The Shape and the Hydraulic Conditions for the Formation of the Beograd Lake, by Geza Bata, 10 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

The Hydrology of the Sava and Danube Rivers in the Region of Their Junction, by Geza Bata, 14 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Underground Waters in Novi Beograd, by Mladen Boreli, Milan Vukovic, 12 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 26, 1963.
OTS 63-11451/1
PL-480

Fuels & Propulsion

Preparation of Impervious Pyrolytic Carbon Coatings and Applications to Dispersed Fuels, by A. Auriol, C. David, et al.
CZECH, rpt, Conference on New Nuclear Materials Including Non-Metallic Fuels, Prague, Vol I, 1963, pp 519-542.
*AERE-Harwell

Scientific
Fuels & Propulsion (Contd)

Photo-elastic Tests on Models for Determining the Effects of Coal Extrusion, by P. Hilbig, M. Schmidt. GERMAN, per, Gluckauf, 1961, pp 30-34. GB/198/L.T.S. 3687

Briquetting Pitch, by K. Wiszniowski, 9 pp. POLISH, per, Koks-Smola-Gaz, No 2, 1957, pp 77-81. OTS 61-11344 PL-480

The Problem of Pitch Hardening, by T. Niewiadomski, 13 pp. POLISH, per, Koks-Smola-Gaz, No 3, 1957, pp 108-114. OTS 61-11344 PL-480

A Tentative Classification of Coke-Oven Tars Based on New Theoretical Principles, by J. Jurkiewicz, T. Niewiadomski, 8 pp. POLISH, per, Koks-Smola-Gaz, No 4, 1957, pp 129-132. OTS 61-11344 PL-480

Preparation of High-Purity Bituminous Coal Tar Pitch, by J. Jurkiewicz, J. Kula, 7 pp. POLISH, per, Koks-Smola-Gaz, No 5, 1959, pp 253-240. OTS 61-11344 PL-480

New Basis of Coal-Tar Classification, by J. Jurkiewicz, T. Niewiadomski, 13 pp. POLISH, per, Koks-Smola-Gaz, No 6, 1959, pp 303-309. OTS 61-11344 PL-480

Materials & Metallurgy

Continuous Casting, by N. B. Geyro, 7 pp. RUSSIAN, bk, Proiz Stali -- Sovremennyye Sposoby, Moscow, 1963, pp 143-150. JPRS 24017

Computer Stalevar, by N. B. Geyro, 6 pp. RUSSIAN, bk, Proiz Stali -- Sovremennyye Sposoby, Moscow, 1963, pp 150-157. JPRS 24017

Mechanical Properties of Uranium Alloys With 1-40% Mo, by V. K. Grigorovich, O. S. Ivanov. RUSSIAN, bk, Stroenie i Svoystva Splavov Urana, Toriya i Tsirkoniya, 1963, pp 120-130. *AERE-Harwell

Reticular Sub-Structure of Ferritic Grains and Its Effect on Deformation and Rupture of Engineering Steel, by B. S. Kasatkin. RUSSIAN, per, Iz Ak Nauk Otdel Tekh Nauk, Met i Toplivo, No 3, 1959, pp 62-69. *BISI 3632

Change in the Mineralogical Composition of Sinter in the Course of Its Reduction, by B. A. Livshits. RUSSIAN, per, Iz Vysshikh Ucheb Zaved Chern Met, No 6, 1963, pp 27-31. BISI 3599

Scientific
Materials & Metallurgy (Contd)

Decarburization Annealing of Cast Iron Sheet, by E. G. Slumovskiy. RUSSIAN, per, Metal i Term Obrab Metallov, No 7, 1956, pp 10-15. *BISI 3645

Structure of Lignin, by A. F. Semechkina, N. N. Shorygina. RUSSIAN, per, Papers of the Institute of Forest Economy and Wood Chemistry, Academy of Sciences of the Latvian SSR, No 19, 1960, pp 65-70. NRC/Ref: C-4462

Synthesis of Polymeric Polydioxyarylene-Phosphonitrylates, by S. M. Zhivukhin, V.B. Tolstoguzov, 13 pp. RUSSIAN, per, Plasticheskiye Massy, No 7, 1963, pp 24-28. 9692167 FTD-TT-63-1101

Metal Nitrides. I. Barium Pernitride, by S. M. Ariya, E. A. Prokofyeva. RUSSIAN, per, Sbornik Statev po Obshch Khim, Vol I, 1953, pp 9-18. *AERE-Harwell

Transition Probabilities for the Principal Series of Lithium, by A.N. Filippov, 87 pp. RUSSIAN, per, Trudy Gosudar Optich Inst, Vol VIII, No 85, 1932, pp 8-118. OTS 63-11135 PL-480

Study of Timber Swelling, by Yu. Ivanov. RUSSIAN, per, Trudy Instituta Lesa Ak Nauk SSSR, No 51, 1962, pp 91-106. CSIRO/No 6463

Elongation and Longitudinal Shrinkage of Timber During Swelling, by Yu. Ivanov. RUSSIAN, per, Trudy Instituta Lesa Ak Nauk SSSR, No 51, 1962, pp 107-119. CSIRO/No 6462

Extension of the Combustion Zone in the Blast Furnace, by L. Z. Khodak. RUSSIAN, per, Trudy Inst Metallurgiy imeni A. A. Baykova, Ak Nauk SSSR, No 11, 1962, pp 16-30. *BISI 3631

Electroconductivity of the Oxides of Group II Metals of Mendeleev's Periodic System, by A. P. Nakhodnova. RUSSIAN, per, Zhur Fiz Khim, Vol XXX, No 7, 1956, pp 1469-1472. *AEC

Plastic Deformation of Single Crystals of Molybdenum, by Pang-hsin Chou. CHINESE, per, Wu Li Hsueh Pao, Vol XIX, No 5, 1963, pp 285-296. *FTD-TT-64-428

Estimation of Some Physical and Physicochemical Properties of Chemical Compounds, by Egon Baumann, 25 pp. CROATIAN, per, Nafta, Vol VII, 1956, pp 335-344. AEC-SC-Tr-64-40

Scientific
Materials & Metallurgy (Contd)

On the Passivation and Corrosion Resistance of Stainless Steel, by Milan Prazak, Vilem Prazak, 21 pp.
CZECH, per, Hutnicke Listy, Vol XI, No 2, 1956, pp 91-97. 9692170
FTD-TT-64-20

Two Hundred and Fifty Years of the Glassworks at Harrachova, by M. Pulpitel.
CZECH, per, Sklar a Keramik, Vol XII, 1962, pp 193-195.
*AERE-Harwell

Koverhar-An Ironworks by Teamwork, by G. Minnla.
FINNISH, per, Tekniskt Forum, Vol XIX, 1962.
*BISI 3644

Electron-Probe Microanalysis of Plutonium-Base Alloys, by M. Dupuy.
FRENCH, rpt.
*AEC

Investigation of the Uranium-Molybdenum Diffusion in Body Centered Solid Solutions, by Y. Adda.
FRENCH, rpt, Paris, 1958.
*AEC

The Discharge of Fluids and Fluidised Solids, by F. Muller.
FRENCH, rpt, Centre National de Recherches Metallurgiques, Nov 1962.
*BISI 3634

Experimental Study of Certain Physical Phenomena in the LD-AC Process. I, by E. Denis, F. Muller.
FRENCH, rpt, Centre National de Recherches Metallurgiques, Nov 1962.
*BISI 3640

Polonium, by M. Haissinsky, 65 pp.
FRENCH, rpt, Nouveau Traite de Chimie Minérale, Vol XIII, 1961.
AEC-MLM-Tr-1165

LDP Fumes: Collection, Treatment and Dust Removal, by F. Debrulle.
FRENCH, rpt, Paper Presented at the International Congress on Oxygen Steel Plants at Le Touquet and Dunkirk, 23-26 Sep 1963.
BISI 3473

Rapid Determination of Traces of Boron in Steels, by R. Rosotte.
FRENCH, per, Chimie Analytique, Vol XLIV, No 5, 1962, pp 208-213.
BISI 3510

Wash Tests and Wearer Trials on Shrink-Proofed Knitted Woolens, by H. Otten.
FRENCH, per, Comite Technique, No 10, 1963, pp 2-25.
CSIRO/No 6451

The Tempering of Quenched High Speed Steels, Part I, by J. Papier, G. Pompey.
FRENCH, per, Memiores Scientifiques de la Revue de Metallurgie, Vol LVII, No 11, 1960, pp 829-844.
BISI 3501

Scientific
Materials & Metallurgy (Contd)

Problems of Accuracy in Sampling Lorraine Iron Ores, by R. Goloubinou.
FRENCH, per, Revue de l'Industrie Minérale, Vol XLIV, Dec 1962.
*BISI 3642

Nitrogen in Cast Irons, by N. Volianik.
FRENCH, per, Revue de Metallurgie, Vol LVIII, Sept 1961, pp 777-787.
*BISI 3626

Effect of Very Low Boron Contents on the Creep Resistance of 18/8 Type Steels, by A. Mercier, J. Hochmann.
FRENCH, per, Revue de Metallurgie, Vol LX, May 1963, pp 477-485.
*BISI 3629

New Research on the Action of a Gas Jet on the Free Surface of a Liquid at Rest, by F. Mathieu.
FRENCH, per, Revue Universelles des Mines, Vol XVIII, July 1962, pp 482-499.
*BISI 3639

Application of X-Ray Fluorescence for Control of Materials in an Agglomeration Plant, by A. Daniels, I. Harvang.
FRENCH, per, Revue Universelles des Mines, Vol XIX, Jan 1963, pp 3-15.
*BISI 3643

Effect of Certain Antibiotics on Wood-Destroying Fungi, by E. E. Becker, et al.
GERMAN, rpt, Intern Symposium Eberswalde, 1962, pp 321-327.
GB/39/Ho 1814

Measuring of Lattice Distortions in Metal Single Crystals, by H. Lambot, et al.
GERMAN, per, Acta Metallurgica, Vol 1, No 11, 1953, pp 711-719.
CSIRO/No 6594

Determination of the Optical Constants of Metals, by P. Drude, 96 pp.
GERMAN, per, Annalen der Physik, Vol XXXIX, 1890, pp 481-554. 9692009
Emmanuel Coll Res Lang Ctr
E-T-G-63-1

Study of the Discontinuous Precipitation in Carbon and Nitrogen-Alloyed Austenitic Iron-Chromium-Manganese-Nickel Cast Alloys, by M. Nacken, K. Muller.
GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XXXIII, No 12, 1962, pp 863-872.
BISI 3178

Special Etching Methods for Steels, With Examples of Application, Part I & II, by J. Brauner.
GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XXXIV, No 3, 1963, pp 173-179.
BISI 3547

On the Theory of Drag Rolling at Room Temperature, by H. Lippmann, O. Mahrenholtz.
GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XXXIV, No 6, 1963, pp 419-422.
*BISI 3628

Scientific
Materials & Metallurgy (Contd)

A High-Temperature Microscope for Large Sheet Specimens and Its Application to Some Problems of Grain Growth, by K. H. Schmidt, R. Hoss.
GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XXXIV, No 11, 1963, pp 831-837.
*BISI 3363

The Approximate Calculation of Optimum Pitch of Uranium Rod Lattices, by H. N. Schludi, 8 pp.
GERMAN, per, Atompraxis, Vol IV, 1961, pp 142-146.
ACSIL Tr 1451

The Historic Development of the Shearing Classifier, by E. O. Riedel.
GERMAN, per, Aufbereitungs-Technik, Vol IV, Nov 1963, pp 507-510.
*BISI 3635

The Sieve Bend-Influence of the Width of the Slots and of the Viscosity of the Feed Upon the Feeding Rate, by F. J. Fontcin.
GERMAN, per, Aufbereitungs-Technik, Vol IV, Nov 1963, pp 511-513.
*BISI 3636

A Year's Working of a Blast Furnace at Voest With Fuel Oil and Oxygen, by G. Hauswirth, H. Mayer.
GERMAN, per, Berg und Huttenmannische Monatshefte, Vol CVIII, Nov 1963, pp 380-391.
*BISI 3651

Rolling Technique. Problems in Hot Rolling Mills, by A. Klement.
GERMAN, per, Blech, Oct 1963, pp 739-741.
*BISI 3648

Testing Methods in Manufacturing and Machining of Wire. Part I. Tests With Destruction of the Testpiece, by F. Rub.
GERMAN, per, Draht, Vol XIV, August 1963, pp 499-504.
*BISI 3646

Testing Methods in Manufacturing and Machining of Wire. Part II. Non-Destructive Testing, by F. Rub.
GERMAN, per, Draht, Vol XIV, Oct 1963, pp 650-654.
*BISI 3646

Trouble-Free Measurement of the Depth of Carburizing Hardening With the Two Step Depth of Impression Process, by E. Just.
GERMAN, per, Harterei-Technische Mitteilungen, Vol XVII, No 10, 1962, pp 148-159.
BISI 3535

Stress Analysis of Wood by Brittle Coating, by T. Maku, H. Sasaki.
GERMAN, per, Holz Als Roh-Und Werkstoff, Vol XX, No 8, 1962, pp 303-314.
CSIRO/No 6435

Low Temperature Steels and Their Weldability, by D. Schulten.
GERMAN, per, Das Industrieblatt, Vol IV, No 4, 1963, pp 209-215.
BISI 3532

Increasing the Strength of Gear Wheels by Special Shaping, Hardening and Machining of the Tooth Base, by M. Ulrich.
GERMAN, per, Luftwissen, Vol IX, No 11, 1942, pp 311-313.
*Redstone Arsenal

Scientific
Materials & Metallurgy (Contd)

The Solution of Carbides and Its Importance for Austenitization and Transformation Behaviour in Tool Steels, by A. Rose, L. Rademacher.
GERMAN, per, Stahl und Eisen, Vol LXXVII, Apr 1957, pp 409-421.
BISI 3466

Resistance Butt Welding of Steel Wire of High Carbon Content, by J. Bockenhoff.
GERMAN, per, Stahl und Eisen, Vol LXXXI, Mar 1961, pp 337-349.
BISI 3468

Planning, Design and Operational Results of a New Semi-Continuous Rolling Mill Train for Medium-Sized Products, by F. Koster.
GERMAN, per, Stahl und Eisen, Vol LXXXII, Jan 1962, pp 77-90.
*BISI 3647

Reheating Alloy Steels as Dependent on Composition, Dimensions and Position of the Ingot in the Furnace, by W. Reimann.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, Mar 1963, pp 389-406.
BISI 3440

Determination of Coke Consumption in the Blast Furnace, by B. Marincek.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, No 15, 1963, pp 917-921.
*BISI 3627

Influence of a Variety of Ores on Efficiency and Cost of Ore Transport, by K. Barein.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, Nov 1963, pp 1408-1413.
BISI 3576

Experience of Supplementary Oil Heating in Blast Furnace Stoves, by W. Keller, W. Risse.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, Nov 1963, pp 1426-1432.
*BISI 3650

Influence of Temperatures Arising With Single and Multiple Drawing Machines on the Mechanical Properties of the Drawn Wire, by C. Eisenhuth.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, Nov 1963, pp 1469-1466.
*BISI 3625

The Calculation of Oxygen Processing Reactions of Iron Ores and Agglomerates, by P. Dickens, P. Konig.
GERMAN, per, Stahl und Eisen, Vol LXXXIV, Jan 1964, pp 9-15.
*BISI 3637

Contribution to the Metallurgy of Top-Blowing Oxygen With Pulverized Lime of Pig Iron Rich in Phosphorus, W. Fischer.
GERMAN, per, Stahl und Eisen, Vol LXXXIV, Jan 1964, pp 117-137.
*BISI 3653

Method for Improving the Mechanical Properties of Epsilon-Phase-Martensite-Containing Austenitic Manganese Steels, by H. Schumann.
GERMAN, per, Technik, Vol XVII, No 7, 1963, pp 469-473.
BISI 3569

Scientific
Materials & Metallurgy (Contd)

Behaviour of Untreated, Bleached and Chlorinated Wool in Pseudo-Dyeing Tests Between 98° and 108°C, by H. Henning.
GERMAN, per, Textil-Praxis, Vol XVII, No 4, 1962, pp 366-376.
CSIRO/No 6452

The Non-Felting Finishing of Wool, by E. Friesser.
GERMAN, per, Textil-Praxis, Vol XVIII, No 2, pp 141-151; No 3, pp 236-240; No 4, pp 343-353, 1963.
CSIRO/No 6509

Investigation of Grain-Boundary Migration in Aluminum Bicrystals, by Wilhelm Schmitzen, Peter Haasen, et al, 27 pp.
GERMAN, per, Z fuer Metallkunde, Vol LI, 1960, pp 101-108.
AEC-Tr-6284

The Spreading of Liquid Metals on the Surface of Solid Metals. I. Spreading Under Surface Layers, by T. Heumann, K. Forch, 44 pp.
GERMAN, per, Z fuer Metallkunde, Vol LIII, No 2, 1962, pp 122-130. 9220448
AEC-NP-Tr-1099

The Quasi-Binary System UFe₂-UA₁₂, by G. Peizow, et al.
GERMAN, per, Z fuer Metallkunde, Vol LIII, No 4, 1962, pp 526-529.
UKAEA-Windscale-Tr-70

Quantitative Electron Microprobe Analysis of Radioactive Materials, by J. P. Lecoq, R. Theisen.
ITALIAN, rpt, 1962.
*AEC

Influence of the Ageing of Anodic Film on the Results of Accelerated Corrosion Tests, by F. Sacchi, et al.
ITALIAN, per, Alluminio, Vol XXX, No 12, 1961, pp 597-611.
GB/39/M/23054

The Action of Chloroform on Symmetrical Dimethylpyrrole, by G. Plancher, U. Ponti.
ITALIAN, per, Atti Rendiconti della Accademia dei Lincei, Vol XVIII, 1903, pp 469-474.
*AERE-Harwell

"S" Curve of Molybdenum-Nickel Cast Iron Containing Spheroidal Graphite, by Y. Tokunaga.
JAPANESE, per, Imono, Vol XXXIII, March 1961, pp 190-201.
*BISI 3652

Studies on Silicone Resin. Preparation of New Organosilicon Polymer, by Kuniharu Kojima, 23 pp.
JAPANESE, per, Shika Zairyo Kenkyusho Hokoku, Vol II, 1962, pp 375-387.
AEC-SC-Tr-533

The Manufacture of Rolls of Spheroidal Graphite Cast Iron With Indefinite and Part Chill Rolls, by B. Raczyński.
POLISH, per, Przegląd Odlewniczy, Vol X, No 9, 1960, pp 263-266.
BISI 3526

Some Studies of Early Mediaeval Glass-Making in Poland, by M. A. Biezbordow, J. Olczak.
POLISH, per, Szkło i Ceramika, Vol XII, No 4, 1961, pp 97-103.
*AERE-Harwell

Scientific
Materials & Metallurgy (Contd)

Success of Rumanian Petrochemistry, by Mihail Florescu, 6 pp.
RUMANIAN, per, Stinta si Tehnica, No 2, 1964, pp 3-6, 7.
JPRS 24014

Measurement of M3 and k For A Heavy water-Natural Uranium Assembly, by D. Popovic, N. Raisic, 5 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Spectrophotometric Measurements on Natural and Irradiated Kunzite, by Slobodan Ristic, Stanislava Lipovac, 13 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Spectrophotometric Studies of Quinoxaline 2,3 Dithiol and its Chelate Compounds With Nickel (II), Cobalt (II) and Palladium (II), by D. B. Stevancevic, V. G. Drazic, 8 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Polarographic and Amperometric Studies of Quinoxaline 2,3 Dithiol and its Chelate Compounds With Transition Metals. A Catalytic Effect of Nickel Chelate, by D. B. Stevancevic, 11 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Harmful Pitch in Pulp, by M. Mahdalk.
SWEDISH, per, Svensk Papperstidning, Vol LXVI, No 3, 1963, pp 51-54.
NRC/Ref: C-4452

Reducing the Cracks and Non-Metallic Inclusions in Electric Steel, by K. K. Prokhorenko, et al.
UKRAINIAN, per, Voprosy Proizvodstva Stali, Ak Nauk Ukrainski SSR, Otdel Tekh Nauk, No 8, 1961, pp 55-69.
*BISI 3641

Mathematics & Data Processing

Tape-to-Card Conversion of the IBM 047;
A Review of Previous Papers, by F. A. Behringer, 7 pp.
RUSSIAN, rpt, Symposium on Punched-Tape Technique in Documentation, 28-30 May 1963.
AERE-Harwell-Tr-986

Punched-Tape Techniques in Documentation Centres Without Punched-Card and EDPM Installations, by H. Petri, 14 pp.
RUSSIAN, rpt, Symposium on Punched-Tape Techniques in Documentation, 28-30 May 1963.
AERE-Harwell-Tr-991

Trade Agreement Between the German Democratic Investigation on an Electronic Computer of Continuous Models of Control Systems, by I. P. Lukashevich, V. A. Steklov, 10 pp.
RUSSIAN, per, Biofizika, Vol VIII, No 6, 1963, pp 715-721.
JPRS 23864

Scientific
Mathematics & Data Processing (Contd)

Coordinate Spaces and Infinite Systems of Linear Equations. II, by Y. I. Gribanov, 13 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Matemat, No 1 (32), 1963, pp 56-74. 9692085
DDC RSIC-140

Approximate Solution of Differential Equations With Deviating Arguments, by N. V. Sharkova, 17 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved Mate, No 3, 1963, pp 173-184. 9692126
FTD-TT-63-1034

Statistical Evaluation of the Beam Displacement in a System of Radiators, by O. G. Vendik, 15 pp.
RUSSIAN, per, Radio i Elek, Vol VIII, No 7, 1963, pp 1130-1138. 9692134
FTD-TT-63-1079

Some Questions About the Statistical Dynamics of Automatic Regulatory Systems, by Ye. I. Filippovich, 17 pp.
RUSSIAN, per, Sbornik Nauchnykh Trudov, Avtom i Pribor, No 2, 1961, pp 31-41. 9692135
FTD-TT-63-468

Analysis of the Structure of the Construction of Signs, by A. S. Rudakov, 14 pp.
RUSSIAN, per, Vychislitel'naya Tekhnika, No 3, 1963, pp 133-164.
JPRS 23851

Symbolic Programming System on Tape, by P. Moindl, 13 pp.
FRENCH, rpt, 1963.
ARC-NF-Tr-1094

Playing With Infinity, by Rozsa Peter, 268 pp.
HUNGARIAN, bk.
Atheneum Pub

Trends in Machine Translation in Japan, by Hara Genkichi, 12 pp.
JAPANESE, per, Joho Kanri, Vol VII, No 1, 1964, pp 17-23.
JPRS 23819

Solution of a System of 739 Normal Equations on the UMC I Electronic Data Processing Machine, by Jerzy Gazdzicki,
POLISH, per, Buletyn Instytutu Geodezja i Kartografia, No 4, 1962.
ACIC

Determination of Some Procedures With a High Order of Exactness for the Numerical Integration of Differential Equations, by A. Cotiu, 20 pp.
RUMANIAN, per, Analele Stiintifice ale Universitatii "Al. I. Cuza" din Iasi, Sectiunea I, Vol VI, 1960, pp 583-598. 9692079
DDC RSIC-104

Use of Automatic Devices in Control Units of Digital Computers, by V. I. Kartashov, 8 pp.
UKRAINIAN, per, Avtomatika, Vol VIII, No 6, 1963, pp 11-16.
JPRS 23816

Scientific
Nuclear Science & Technology

Isotope Exchange Between Hydrogen and Liquid Ammonia in the Presence of Heterogeneous Catalysts, by R. Haul, D. Biennemann.
RUSSIAN, rpt, 1962.
*AERE-Harwell

Motion of Pores in Solids Caused by Thermal Migration of Atoms Along Their Surface, by E. Ya. Mikhlin.
RUSSIAN, rpt, Obninsk, 1963.
*AERE-Harwell

Investigation of the Increment of Neutron Flux Density Obtained in the Breeding Zones by the Addition of Extra Reflectors Made of Various Substances, by M. N. Nikolayev, A. V. Zvonarev, 23 pp.
RUSSIAN, bk, Issledovanie Podrova Neutronnogo Potoka v Zonakh Vospolzvodstva, Sozdavavomogo Popolitel'nymi Otrazhatel'nykh iz Razlichnykh Materialov, 1963, 29 pp.
FTD-TT-63-977

Fundamental Aspects of Shielding From Radiation of Accelerators of Protons, Deuterons, and Alpha Particles, by M. M. Komochkov.
RUSSIAN, rpt, Joint Institute for Nuclear Research, 1963.
*AEC

Thermal Telomerization of Olefins With Silicon Hydrides, by R. Kh. Freidlina, A. N. Nesmayanov, et al, 14 pp.
RUSSIAN, rpt, Trudy Konferentsii Khimii i Prakticheskoe Primenenie Kremneorganicheskikh Soedinenii, No 6, 1961, pp 72-82.
AEC-SC-Tr-64-41

Probe Method for Measuring the Displacement of a Current Column in Cylindrical and Toroidal Cavities, by S. V. Mirnov, 33 pp.
RUSSIAN, bk, Zondovaya Metodika Izmereniya Smeshcheniya Tokovogo Stnura v Tsilindr i Toroidal'nykh Khamerakh, 1963, 20 pp.
AEC-MATT-Tr-11

Concerning the Expansion of a Positive Kernel Into a Bilinear Series, by M. D. Dol'berg, 7 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXV, 1958, pp 945-948.
AEC-SC-Tr-534

New Machines and Equipment, by N. N. Uli'rikh, Ye. N. Konyushnikov, 6 pp.
RUSSIAN, per, Mekh i Elektri, No 6, 1963, pp 60-62.
JPRS 23994

A New Type of Radioactive Decay, by G. Florov, 6 pp.
RUSSIAN, np, Pravda, 12 Jan 1964, p 3.
JPRS 23996

Calorimetric Methods in Dosimetry of Ionizing Radiation, Part II, by Zdenek Kovar, 13 pp.
CZECH, per, Jaderna Energie, Vol VIII, 1962, pp 90-93.
AEC-UCRL-Tr-1010(L)

Scattering of Slow Neutrons by Crystals and Liquids. II, by J.J.J. Kokkedee, B.R.A. Nijboer.
DUTCH, per, Nederlands Tijdschrift voor Natuurkunde, Vol XXIX, 1963, pp 93-109.
*AERE-Harwell

A Treatment Station for Solid Radioactive Waste at the Saclay Nuclear Research Center, by P. Cerre, E. Mestre, et al, 72 pp.
FRENCH, rpt, 1963. 9220551
AEC-UCRL-Tr-1008(L)

Scientific
Nuclear Science & Technology (Contd)

Methods of Studying Self-Diffusion in Metals by Means of Radioisotopes, by Claude Leymonie, Paul Lacombe, 31 pp.
FRENCH, rpt, International Journal of Applied Radiation Isotopes, Vol V, 1959, pp 175-196.
AEC-NRC-TT-1100

Production of UO₂ Crystals by Electrolysis in Fused Chlorides at 450-550°C, by G. Chauvin, H. Coriou.
FRENCH, rpt, Production de Cristaux de UO₂ par Electrolyse de Chlorures Fondus a 450-550°C, Jul 1963.
*AEC

Quantitative Analysis by Neutron Activation of Impurities Contained in Organic Substances Employed in Nuclear Technology, by Jules Pauly, Francesco Girardi, 12 pp.
FRENCH, per, Bulletin de Societe Chimica de France, 1963, pp 244-247.
AEC-AI-Tr-27

Contribution to the Study of the Structure of Dilute Solutions of Cobalt in Copper, by R. Tournier, J. J. Veyssie, et al, 11 pp.
FRENCH, per, Journal de Physik et Radium, Vol XXXIII, 1962, pp 672-676.
AEC-AI-Tr-64-3

Analysis by Activation of Mineral Impurities in Terphenyls and Their Determination by γ -Spectrometry, by G. Aubouin, 15 pp.
FRENCH, per, Radiochim Acta, Vol I, No 3, 1963, pp 117-123.
AEC-AI-Tr-25

Electromagnetic Separation of Radioactive Isotopes, by M. J. Higatsberger, 16 pp.
GERMAN, per, Acta Physica Austriaca, Vol XVI, 1963, pp 234-244.
AEC-Tr-6283

Selective Separation of Radioactive Iodine, by W. Hild, K. H. Lieser.
GERMAN, per, Die Naturwissenschaften, Vol LI, No 1, 1964, p 12.
*AERE-Harwell

Possibilities of Errors in the Mass-Spectrographic Solid-Body Analysis by Means of High-Frequency Sparks for the Production of Ions, by J. Franzen, H. Hintenberger, 9 pp.
GERMAN, per, Z fuer Analytische Chem, Vol CXCVII, 1963, pp 91-97.
AEC-SC-Tr-531

Mass-Spectroscopic Solid-Body Investigations by Means of a Direct-Current Disruption Spark for the Production of Ions, by K. D. Schuy, H. Hintenberger, 10 pp.
GERMAN, per, Z fuer Analytische Chemie, Vol CXCVII, 1963, pp 98-106.
AEC-SC-Tr-537

Critical Temperature Determination of Some Mercuric Halides, by L. Rotinjan, W. Suchodski, 5 pp.
GERMAN, per, Z fuer Physikalische Chemie, Vol LXXXVII, 1914, pp 253-256.
AEC-AI-Tr-29

Ion Conductivity Pressure Dependence of Anomalous AgBr and AgI Mixed Crystals, by K. Wagener, 9 pp.
GERMAN, per, Z fuer Physikalische Chemie, Vol XXIII, 1960, pp 305-312.
AEC-AI-Tr-28

Scientific
Nuclear Science & Technology (Contd)

The A & Effects of a Correlation Between Mating-Type Constitution and Radiation Resistance of Yeast, by Wolfgang Laskowski, 12 pp.
GERMAN, per, Zentralblatt fuer Bakteriologie Parasitenkunde, Vol CLXXXIV, 1962, pp 251-258.
AEC-UCRL-TF-1024

Ispra Joint Research Center in the Field of Shielding, by A. Kind, R. Nicks.
ITALIAN, rpt, Gionnate dell' Energia Nucleare, Milano, 13-15 Dec 1962.
*AEC

Study of the Elimination From the Peritoneal Cavity of Colloidal Preparations of Varying Micelle Size, by B. Bellion, G. Buchl, et al.
ITALIAN, per, Minerva Nucleare, Vol VII, No 11, 1963, pp 454-459.
*AERE-Harwell

Theoretical Principles and First Practical Results of the Use by the Lymphatic Route of a Radioactive Contrast Medium Lipiodol F¹⁹³I, by S. Chiappa.
ITALIAN, per, Minerva Nucleare, Vol VII, No 11, 1963, pp 460-467.
*AERE-Harwell

Analysis of the Unsteady State of the Thermal Diffusion Cell, by Tokuro Mizushima, Ryusho Ito, 16 pp.
JAPANESE, per, Kagaku Kagaku, Vol XXV, 1961, pp 34-40.
AEC-MLM-Tr-1167

Studies on Tritium-Labelled Compounds. Preparation of Tritium-Labelled Essential Amino Acids, by Y. Sato, T. Takahashi, 15 pp.
JAPANESE, per, Radioisotopes, Vol X, 1961, pp 488-492.
AEC-NP-Tr-1093

Physics

Soviet Maser Research, by D. V. Skobel'syn, 186 pp.
RUSSIAN, bk.
Consultants Bureau

Ultrasonic in Industrial Processing and Control by V. F. Nozdreva, 202 pp.
RUSSIAN, bk.
Consultants Bureau

Creep and Carrying Capacity of Shells, by I. I. Holdenblat, N. A. Nikolayenko, 53 pp.
RUSSIAN, rpt, Nauchnoye Soobshchenye Ak Stroytel'stva i Arkhitektury SSSR, No 13, 1960, pp 1-60.
9592081
DDC RSIC-132

Fundamentals of Cosmic Electrodynamics, by S. B. Pitkei'ner, 268 pp.
RUSSIAN, bk, Osnovy Kosmicheskoy Elektrodinamiki, Moscow, 1961, pp 1-295.
NASA TT F-175

Scientific
Physics (Contd)

Doppler Proton Velocities According to Observations of the H_{β} Emission of Aurorae, by P. Ya. Sukhoyvanenko, 10 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Space-Time Distribution of Aurorae in the Arctic in the Winter of 1957-1958, by O. V. Khorosheva, 11 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Azimuths and Speeds of Movement of Homogeneous Auroral arcs, by G. V. Starkov, 7 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Daily Variations in auroral Activity based on Photographic Observations at Tiksi Bay, by Yu. A. Nadubovich, 8 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Auroral Photometry based on the Focal Images of Stars on Photographs Made With the C-180 Camera, by N. A. Popova, 6 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Position of the Second Auroral Zone and the Relationship Between Aurorae in the Morning and Magnetic Disturbances by A. P. Nikol'skiy, 8 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Magneto-Ionospheric Disturbances and Aurorae in the Region Near the Pole, by Ya. I. Fel'dshteyn, 11 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Certain Problems of the Geographical Distribution of Aurorae in the Northern Hemisphere, by Ya. I. Fel'dshteyn, E. K. Solomatina, 12 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Scientific
Physics (Contd)

Causes of the Asymmetry in the Location of the Auroral Zone in the Arctic and Antarctic, by A. P. Nikol'skiy, 5 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Interferometric Study of the Green Line in the Spectrum of Certain Forms of Aurorae, by A. E. Veller, 33 pp.
RUSSIAN, bk, Polyarnyye Sviyaniya i Svecheniye Nochnogo Neba: Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda, Section IV, No 7, 1961. 9220619
NASA TT F-117

Investigation of the Detonation of Condensed Explosives, by L. D. Landau, K. P. Stanyukovich, 7 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol XLVI, No 9, 1945, pp 399-402. 9592121
FTD-TT-63-1112

Critical Heat Fluxes During Flow of a Wetting Liquid With a Nucleus, Underheated to the Temperature of Saturation, by S. S. Kutateladze, 7 pp.
RUSSIAN, per, Energika, No 2, 1959, pp 229-239. 9692080
DDC RSIC-129

Theory of Double Emission of Light Quanta by the Hydrogen Atom, by A. Ya. Kipper, 19 pp.
RUSSIAN, per, Estonia Ulikool, Vol XXXII, No 2, 1952, pp 63-93.
OTS 63-11135
PL-480

On the Oxidation Mechanism of Titanium, by D. I. Lainer, A. S. Bai, 9 pp.
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol XIV, No 2, 1962. 9691856
DDC RSIC-135

Regional Hemodynamics Indicators at Vestibular Loads, by B. O. Nakhapetov, 9 pp.
RUSSIAN, per, Eiz Zhur, Vol IX, No 3, 1963, pp 323-329. 9691990
FTD-TT-64-32

Wide Angle Condensers, by A. Sh. Shakhverdov, 7 pp.
RUSSIAN, per, Geodeziya i Kartografiya, No 1, 1962, pp 43-47. 9692180
FTD-TT-63-1098

Brief and Preliminary Informations. Utilization of Special Points in Anomalous Profiles Za for Interpretations of Vertical Magnetic Measurement, by V. A. Lariorov.
RUSSIAN, per, Geologiya i Geofizika, No 7, 1961, pp 96-98.
ACIC

Solution of Heat Conduction Problems by the Grid Method, by G. F. Muchnik, 15 pp.
RUSSIAN, per, Inzhenerno-Fiz Zhur Ak Nauk BSSR, Vol IV, No 3, 1961, pp 72-82. 9220709
NASA TT F-151

Critical Heat Loads for an External Low-Velocity Flow of Subcooled Water Around a Tube in a Square Channel, by B. A. Zonkevich, O. V. Remizov, 6 pp.
RUSSIAN, per, Inzhenerno-Fiz Zhur, Vol VI, 1963, pp 112-115.
AEC-Tr-6291

Scientific
Physics (Contd)

- Analytical Investigation of Turbulent Jet Developing in an Accompanying Flow, by E. Timma.
RUSSIAN, per, Iz Ak Nauk Estonskoy SSR, Ser Fiz. Matemat i Tekh Nauk, No 1, 1963, pp 57-74.
*FTD-TT-64-339
- Approximation Theory of Heat Transfer in Developed Bubble Boiling, by D. A. Labuntsov, 20 pp.
RUSSIAN, per, Iz Ak Nauk, Energ i Trans, No 1, 1963, pp 58-71. 9220563
AEC-Tr-6286
- On the Unperturbability of Spherical Pendulum of Variable Length During Changing of the Point of Support in a Central Field of Gravity, by M. Z. Litvin-Sedov.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 1, 1963, pp 33-40.
*FTD-TT-64-413
- Determining the Reactions of the Connections in a System of Solids, by A. I. Lur'ye.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 1, 1963, pp 41-46.
*FTD-TT-64-413
- On the Approximate Designing of a Screen of Protection Against Meteors, by L. S. Bezgin, M. I. Ivashchenko.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 1, 1963, pp 127, 128.
*FTD-TT-64-413
- Boundary Layer With Pressure Gradient in Compressible Fluid Flow, by V. Ya. Shkadov, 9 pp.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 2, 1963, pp 28-32. 9692123
FTD-TT-63-1138
- Some Problems in the Motion and Stability of Spherical Gyroscope, by V. V. Kremontulo.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 2, 1963, pp 120-125.
*FTD-TT-64-414
- Influence of the Centrifugal Moments of Inertia of an Inner Ring of Cardan Suspension on the Stability of a Gyroscope, by I. N. Sintayn.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 2, 1963, pp 133-135.
*FTD-TT-64-414
- Some General Problems in the Correlation Analysis of the Precision of Mechanisms, by V. I. Sergeyev.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 3, 1963, pp 149-153.
*FTD-TT-64-415
- On the Precision of Recording Fields of Accelerations, by M. I. Subbotin.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 3, 1963, pp 153-160.
*FTD-TT-64-415
- Notes on the Dynamics of Cardan Suspension, by D. M. Kilmov.
RUSSIAN, per, Iz Ak Nauk SSSR Otdel Tekh Nauk Mekh i Mash, No 4, 1963.
*FTD-TT-64-416
- Reabsorption of Light in Gas Discharge and Some of Its Applications, by S. E. Frish, 6 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Ser Fiz, Vol XIV, No 6, 1950, pp 711-715.
OTS 63-11135
PL-480

Scientific
Physics (Contd)

- Investigation of Photo Excited Triplet States of Polyatomic Molecules by the Epr and Phosphorescence Method, by A. K. Piskunov, R. N. Nurmukhametov, 7 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Seriya Fiz, Vol XXVII, No 5, 1963, pp 634-637. 9692164
FTD-TT-64-183
- New Data on the Excitation Functions of Inert Gases, by I. P. Zapesochnyy, P. V. Feltsan, 6 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Ser Fiz, Vol XXVII, 1963, pp 1040-1043. 9220449
AEC-NP-Tr-1086
- Fine Structure of the Optical Excitation Functions of Zn, Cd and Hg Atoms, by I. P. Zapesochnyy, V.S. Shevera, 9 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Ser Fiz, Vol XXVII, 1963, pp 1044-1048.
AEC-NP-Tr-1093
- Experimental Determination of Oscillator Strengths of Lead Lines by the Absorption Method, by M. Z. Khokhlov, 9 pp.
RUSSIAN, per, Iz Krymskoi Astrofiz Obs'er, No 22, 1960, pp 116-127.
OTS 63-11135
PL-480
- An Estimate of the Upper Limit of the Lead Content in the Solar Atmosphere From the Infrared Lead Line 7229, by M. Z. Khokhlov, 5 pp.
RUSSIAN, per, Iz Krymskoi Astrofiz Obs'er, No 22, 1960, pp 128-133.
OTS 63-11135
PL-480
- He I Excitation in Chromospheric Flares, by N. Steshenko, V. Khokhlova.
RUSSIAN, per, Iz Krymskaya Astrofizicheskaya Observatoriya, Vol XXVII, 1962, pp 120-139.
CSIRO/No 6541
- Longitudinal-Transverse Bending of Stiffened Circular Cylindrical Shells, by S. N. Kar, D. Ye. Lipovskiy, 27 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Ser Aviat Tekh, No 1, 1963, pp 33-47. 9220710
NASA TT F-194
- Diffusion of π -Mesons in He3 and He4, by N. V. Dushin, 7 pp.
RUSSIAN, per, Nauchnyye Dok Vyssh Shkoly, Fiz Mate Nauki, No 2, 1958, pp 162-165. 9692173
FTD-TT-63-1093
- Determination of the Degree of Inhomogeneity in D-C and A-C Arc Discharges, by I. V. Dvornikova, I. M. Nagibina, 12 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4, 1958, pp 421-429.
OTS 63-11135
PL-480
- Determination of the Concentration of Atoms in the Plasma of an A-C Arc From Line Widths, by I. M. Nagibina, 8 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4, 1958, pp 430-437.
OTS 63-11135
PL-480
- On the Motion of a Liquid in an Oscillating Container, by V. V. Bolotin, 6 pp.
RUSSIAN, per, Erik Matemat i Mekh, Vol XX, 1956, pp 293-294. 9691839
DDC RSIC-133

Scientific
Physics (Contd)

- Equilibrium of Flexible Elastic-Plastic Shells and Plates, by N. F. Versnov.
RUSSIAN, per, Prik Mekh, Vol VIII, No 5, 1962, pp 489-499.
*PTD-TT-64-420
- Unsteady Boundary Layer Theory, by V. V. Struminakiy, 43 pp.
RUSSIAN, per, Sbornik Teoreticheskikh Rabot po Aerodinamika, 1957, pp 230-252. 9692025
PTD-TT-63-778
- Effect of Channel Diameter on Critical Heat Loads, by V. E. Doroshchuk, F. P. Lantsman, 9 pp.
RUSSIAN, per, Teploenergetika, Vol X, No 8, 1963, pp 73-76.
AEC-Tr-6287
- Methods of Calculating Critical Heat Fluxes for a Forced Flow of Water, by M. E. Shitsman, 6 pp.
RUSSIAN, per, Teploenergetika, Vol X, No 8, 1963, pp 76-78.
AEC-Tr-6290
- Approximate One-Electron Wave Functions for Excited Levels of the Positive Oxygen Ion, by I. I. Glembotakiy, L. L. Kuzmitakite, 12 pp.
RUSSIAN, per, Trudy Ak Nauk Litovskoi SSR, Seriya B, Vol I, No 21, 1960, pp 87-98.
OTS 63-11135
PL-480
- Treatment of Two-Electron Transitions With Application to CaI, by I. V. Chuplis, K. K. Ushpaliy, 6 pp.
RUSSIAN, per, Trudy Ak Nauk Litovskoi SSR, Seriya B, Vol II, No 25, 1961, pp 23-30.
OTS 63-11135
PL-480
- Two-Configuration Approximation for the Calcium Atom, by T. D. Strotakite, A. P. Yuzals, 5 pp.
RUSSIAN, per, Trudy Ak Nauk Litovskoi SSR, Seriya B, Vol II, No 25, 1961, pp 93-98.
OTS 63-11135
PL-480
- Computation of Line Strengths by the "Extended Method", by A. P. Yutsals, Ya. I. Vizbaraita, 6 pp.
RUSSIAN, per, Trudy Ak Nauk Litovskoi SSR, Seriya B, Vol III, No 26, 1961, pp 99-105.
OTS 63-11135
PL-480
- Results of Certain Heat-Engineering Investigations, by V. D. Yusufova, 21 pp.
RUSSIAN, per, Trudy Inst Energeticheskogo, No 15, 1962, pp 180-194. 9691989
FTD-TT-63-922
- The Calculation of Heating of Bodies Under the Action of Radiant Heat Transfer on the Basis of the Similarity Theory, by G.P. Boykov.
RUSSIAN, per, Trudy Moskovskogo Instituta Inzhenerov Zheleznodorozhnogo Transporta, Vol CXXXIX, 1961, pp 105-110.
*Redstone Arsenal
- The Similarity of Non-Stationary Heat Transfer of Solids Under Identical Conditions, by E. V. Kudryavtsev, N. V. Shumakov.
RUSSIAN, per, Trudy Moskovskogo Instituta Inzhenerov Zheleznodorozhnogo Transporta, Vol CXXXIX, 1961, pp 122-130.
*Redstone Arsenal

Scientific
Physics (Contd)

- On the Role of Physical-Chemical Processes During Calorimetric Measurements of Radioactive Substances, by N. S. Shimanskaya, 6 pp.
RUSSIAN, per, Trudy Radiovogo Instituta Ak Nauk SSSR, Vol IX, 1959, pp 131-133.
AEC-UCRL-Tr-1005(L)
- Electrokinetic Analysis of the Interaction of Flotation Reagents With Certain Non-Sulphide Ore Minerals, by B. I. Berlinskiy.
RUSSIAN, per, Trudy Tsentral'nogo Nauchno-Issled. Geol-Razved Instituta, No 4, 1963, pp 124-133.
*AERE-Harwell
- On One Method of Numerical Solution of Certain Non-linear Problems of Aero-Hydrodynamics, by A. A. Dorodnitsyn, 12 pp.
RUSSIAN, per, Trudy Vses Matemat S'ezda, Vol III, 1958, pp 447-453.
AEC-UCRL-Tr-993(L)
- Approximate Estimates of Certain Atomic Parameters of Ca Needed in Astrophysical Calculations, by A. A. Nikitin, 11 pp.
RUSSIAN, per, Uchenye Zapiski Lening Gosud Univ. Ser Mate Nauk, Vol XVII, No 190, 1957, pp 3-17.
OTS 63-11135
PL-480
- Semi-Empirical Method for Calculating Optical Transition Probabilities in Univalent Atoms, by M. I. Petrashen', I. V. Abarenkov, 6 pp.
RUSSIAN, per, Vest Leningrad Univer., No 5, 1954, pp 141-148.
OTS 63-11135
PL-480
- Determination of Approximate Transition Probabilities and Absorption Coefficients for the Levels of the Configurations $1s2s2nl$ and $1s2s2p(1.3p)nl$ in N III, by A. A. Nikitin, 23 pp.
RUSSIAN, per, Vest Lening Univ, No 13, 1962, pp 113-137.
OTS 63-11135
PL-480
- Reabsorption Methods for Determination of Transition Probabilities and Level Populations, by S. E. Frish, O. P. Bochkova, 18 pp.
RUSSIAN, per, Vest Lening Univer Seriya Fiz i Khim, No 16, 1961, pp 40-58.
OTS 63-11135
PL-480
- Semi-Empirical Calculation of the Oscillator Strengths of Doublet Components, by R. Yanoukh, 7 pp.
RUSSIAN, per, Vest Lening Univ, Ser Mate Fiz i Khim, Vol X, No 2, 1955, pp 135-142.
OTS 63-11135
PL-480
- The Physical Fundamentals of Separating Helium and Nitrogen, by M. Ruhemann, A. Fedoritsenko.
RUSSIAN, per, Zhur Tekh Fiz, Vol VII, No 4, 1937, pp 335-342.
*Redstone Arsenal

Scientific
Physics (Contd)

Probe Characteristics Obtainable With the Aid of Probes Different Types in the Plasma of a Gas Discharge in Vapors of Mercury and Cesium, by N. I. Ionov, A. Ya. Tontegode.
RUSSIAN, per, Zhur Tekh Fiz, Vol XXXIV, No 2, 1964, pp 354-360.
*FTD-TT-64-380

Investigation of the Distribution According to the Energies of the Atoms of Nickel Which are Formed in Cathode Atomization of Nickel by the Ions of Mercury, by M. B. Benyaminovich, V. I. Vekaler.
RUSSIAN, per, Zhur Tekh Fiz, Vol XXXIV, No 2, 1964, pp 361-368.
*FTD-TT-64-380

Difference Scheme for Two-Dimensional Problems of Gas-Dynamics and Calculation of Streamflow With a Departed Shock Wave, by S. K. Godurov.
RUSSIAN, per, Zhur Vychislitel Matemat i Matemat Fiz, Vol I, 1961, pp 1020-1050.
*AEC

A Device for Semiautomatic Setting of an Exposure in a Camera, by A. P. Orlov, 7 pp.
RUSSIAN, Patent No 122,021, June 28, 1957, pp 1-3.
9692179
FTD-TT-63-1003

Three-Dimensional Elasticity Problems Solved by Complex Variable Method, by Li-min T'ang.
CHINESE, per, Chung Kuo K'uo Hsueh, Vol XII, No 11, 1963, pp 1627-1649.
*FTD-TT-64-353

Asymmetrical Deflection of a Shallow Spherical Shell With Surface Imperfections Under External Pressure, by Ivan Hlavacek.
CZECH, per, Applikace Matematiky, Vol VIII, No 6, 1963, pp 399-410.
*FTD-TT-64-354

Magnetic-Memory Period Meter, by R. Bollst, 26 pp.
FRENCH, rpt, 1963.
AERE-Harwell-Tr-969

New Simple Expression of the Radial Diffusion Coefficient for Full Channels of Fuel Rods, by P. Benoist, 21 pp.
FRENCH, rpt, Jan 1964.
AEC-AI-Tr-64-2

Beta Dosimetry in Interstitial Applications, by J. Dutreix, 57 pp.
FRENCH, rpt, Journal of Radiological Electrological Medical Nuclear, Vol XII, 1960, pp 731-745.
AEC-NP-Tr-1087

Experimental Determination of Internal Stress in Solids, by Augustin Mesnager.
FRENCH, rpt, Memorial des Sciences Physiques, L'Academie des Sciences de Paris, Part X, 1929, pp 1-80.
*Redstone Arsenal

Note on the Double Refraction Temporarily Produced in Isotope Bodies, and on the Relation Between Mechanical and Optic Elasticity, by M. G. Wertheim.
FRENCH, per, Annales de Chimie et de Physique, Vol XL, 1854, pp 156-221.
*Redstone Arsenal

Scientific
Physics (Contd)

Contribution to the Study of the Elastic Deformation of Solids, by A. Mesnager.
FRENCH, per, Annales des Ponts et Chaussées Memoires, Vol IV, No 50, 1901, pp 129-190.
*Redstone Arsenal

Note on the Chromatic Polarization Produced by Compressed Glass, by M. G. Wertheim.
FRENCH, per, Comptes Rendus, Vol XXXII, 1850, pp 289-292.
*Redstone Arsenal

Action on Yeast of Soft X-Rays K of Iron, by F. Holweck, A. Lacassagne, 5 pp.
FRENCH, per, Comptes Rendus, Vol CIII, 1930, pp 60-62.
AEC-UGRL-Tr-1025

Photoelastometry, by A. Barac.
FRENCH, per, Machines et Materiaux, Vol XXXI, 1947, pp 333-339, 341.
*Redstone Arsenal

A Purely Optical Method for Determining the Distortion in Test Specimens, Which Practically Does Not Impose Any Conditions on the Parallelism of Their Surfaces, by V. Tesar.
FRENCH, per, Revue D'Optique, Vol XI, No 3, 1932, pp 97-104.
*Redstone Arsenal

Laboratory for Testing the Stability of Constructions and for Photoelasticity, by A. de Marneffe.
FRENCH, per, Revue Universelle des Mines, Vol XCI, No 1, 1948, pp 64-66.
*Redstone Arsenal

Point by Point Investigation of the Surface of a Crystal by the Berg-Barrett Method, by C. Bousquet.
GERMAN, per, Acta Crystallographica, Vol XVI, 1963, pp 989-993.
*AEC

On the Change of the Optical Behavior of Different Types of Glass Caused by Elastic Deformation, by F. Pockels.
GERMAN, per, Annalen der Physik, Vol VII, pp 745-771; Vol IX, pp 220-223, 1902; Vol XI, pp 651-653, 1903.
*Redstone Arsenal

On a Method for Measuring the Dispersion of the Artificial Double Refraction, by Otto Reeb.
GERMAN, per, Annalen der Physik, Vol LXXI, No 15, 1923, pp 427-456.
*Redstone Arsenal

Output of X-Rays From Al by Bombardment With Protons, by O. Peter.
GERMAN, per, Annalen der Physik, Vol XXVII, No 4, 1936, pp 299-311.
*AEC

Characteristic Matrices of the Basic Transistor Circuit, by Gert Marte, 11 pp.
GERMAN, per, Archiv der Elektrischen Uebertragung, Vol XVI, No 7, 1962, pp 343-346. 9692210
DDC RSIC-126

Thin-Layer Chromatography. IV. Scheme, Border Effect, Acidic and Basic Layers, Step Technique, by Egon Stahl.
GERMAN, per, Archiv der Pharmazie, Vol CCXII, 1959, pp 411-416.
*AEC

Scientific
Physics (Contd)

Investigating the Kinetic Energy of Turbulent Currents Using Weighted Averages, by F. Wippermann, 12 pp.
GERMAN, per, Beiträge zur Physik der Atmosphäre, Vol XXXIII, No 3, 4, 1961, pp 225-231. 9692007
Emmanuel Coll Res Lang Ctr
E-T-G-63-28

A Method for the Determination of Radia Density and Temperature Distribution in High Pressure Xenon Discharge, by J. Worm.
GERMAN, per, Experimentelle Technik der Physik, Vol II, No 1, 1963, pp 51-61.
*FTD-TT-64-372

Emission of Light in Detonation of High Explosives, by C. H. Johansson.
GERMAN, per, Explosivstoffe, Vol XI, No 12, 1963, pp 251-261.
*Redstone Arsenal

Production of Plane Polarized Light by Thin Dielectric Films, by H. Schroder.
GERMAN, per, Optik, Vol III, No 5, 6, 1948, pp 499-503.
*Redstone Arsenal

Model Calculations of X-Ray Bragg Reflections From Dislocations, by K. Dittler.
GERMAN, per, Physica Status Solidi, Vol IV, No 1, 1964, pp 71-88.
*AERE-Harwell

Some Recent Results of the Electron-Microscopic Investigation of NaCl Surfaces, by H. Bethge.
GERMAN, per, Physikalische Blätter, Vol XVI, No 4, 1960, pp 223-227.
GB/163

Stimulation of X-Radiation by Canal-Ray Impacts, by C. Gerthsen.
GERMAN, per, Physikalische Z., Vol XXXIV, 1933, pp 478-482.
*AEC

On a Purely Optical Method of Measuring the Movements in Thin Plates Under Bonding, by Henry Favre, Bernhard Glig.
GERMAN, per, Schweizerische Bauzeitung, Vol LXVIII, No 19, pp 253-257; No 20, pp 265-267, 1950.
*Redstone Arsenal

Fish-Scales -- a Defect of Sheet-Steel Enameling, by Rudolf Maerker, 34 pp.
GERMAN, per, Sprechsaal, Vol XCV, 1962, pp 316-326.
AEC-AI-Tr-30

Evaluation Assessment of Aerosol Filters by the Oil Mist Method, by Fritz Bangert.
GERMAN, per, Staub, Vol XXI, 1961, pp 298-300.
*AEC

Theoretical Investigations of the Image Defects in Electron Diffraction Patterns, by H. Noven, F. Lenz.
GERMAN, per, Z fuer Angewandte Physik, Vol XI, No 10, 1959, pp 375-380.
GB/4/T/1650

Statistics of the Localised and Non-Localised Spin Deviations in the Spin Wave Theory, by D. Frank, 17 pp.
GERMAN, per, Z fuer Physik, Vol CLXVI, 1962, pp 494-503.
AEC-NP-Tr-1088

Scientific
Physics (Contd)

On the Theory of the Ludwig-Soret Effect, by B. Bruza, 18 pp.
GERMAN, per, Z fuer Physikalische Chemie, Vol CLVIIa, 1931, pp 422-434.
AEC-Tr-6282

Nucleus Formation in Metal Melts. II. Effect of Small Additions of Foreign Elements on the Supercooling of Antimony Melts, by Walter Mannchen, Helmut Puttrich.
GERMAN, per, Z fuer Physik Chemie, Vol CCXX, 1962, pp 355-378.
*FTD-TT-64-431

Determination of Swingtime of a Pendulum by Measurements and Adjustments of a Whole Curve of Coincidence, by A. Berroth.
ITALIAN, per, Geofisica Pura e Applicata, Vol XXVI, 1953.
ACIC

Correction Method for Matrix Effect in Fluorescent X-Ray Analysis. Part I, by Masakatsu Sugimoto.
JAPANESE, per, Bunseki Kagaku, Vol XI, 1962, pp 1168-1176.
*Redstone Arsenal

Separative Powers and Optimum Operating Pressures in Gaseous Diffusion Separating Apparatuses, by K. Higashi, C. Shimizu, et al, 15 pp.
JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol IV, 1962, pp 516-519.
AEC-NP-Tr-1084

Paramagnetic Susceptibility of Ferrimagnetic and Antiferrimagnet Systems. I. General Part, by Bogdan Fechner.
POLISH, per, Acta Physica Polonica, Vol XXIII, No 5, 1963, pp 601-611.
*FTD-TT-64-360

The Role of -Aminobutyric Acid and l-Glutamic Acid in the Acetylcholine Cycle, by Wieslaw Romanowski, Janina Janota-Lukaszewska, 11 pp.
POLISH, per, Acta Physiol Polonica, Vol XIII, No 6, 1962.
OTS 62-11063
PL-480

The Tunnel Effect in Solids, by Tadeusz Figielski.
POLISH, per, Postepy Fizyki, Vol XIV, No 4, 1963, pp 455-465.
*FTD-TT-64-426

Heat Treatment of Iron and Steel 0.45% C in a Magnetic Field, by Roman Skorski.
POLISH, per, Prace Instytutow Mechaniki, Ministerstwo Przemyslu Cieskiego, Vol VI, No 21, 1957, pp 1-32.
*Redstone Arsenal

Electron Paramagnetic Resonance. I. Theoretical Principles and Apparatus, by M. K. Kalinowski, A. J. Sadlej.
POLISH, per, Wiadomosci Chemiczne, No 2, 1963, pp 91-113.
*FTD-TT-64-429

Electron Paramagnetic Resonance. II. Chemical Applications of EPR Spectroscopy. Experimental Techniques and Interpretation of Results, by J. K. Kalinowski, A. J. Sadlej.
POLISH, per, Wiadomosci Chemiczne, No 3, 1963, pp 171-194.
*FTD-TT-64-430

Scientific
Physics (Contd)

Effects of Highly Polymerized Nucleic Acids and Their Derivatives Upon the Recovery of Irradiated Rats, by D. Kanazir, A. Becarevic, 9 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Partial Restoration of Hemolysin-Forming Capacity in X-Irradiated Rats by Homologous Spleen Deoxyribonucleic Acid, by Miroslav M. Simic, Milica Z. Petkovic, 10 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Effects of UV Irradiation on the Metabolism of Glycogen-Like Polysaccharides in Salmonella Typhimurium and Escherichia Coli Requiring Thymine, Uracil and Arginine, by Tamara A. Hudnik, Plevnik, 7 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

The Reticulocyte Reaction of Mice Under the Influence of Direct Irradiation and of the Serum of Irradiated Animals, by S. Hajdukovic, Lj. Stosic, 7 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Separation of Fission Products and Corrosion Elements on Aluminium Oxide, by Ejordje S. Nemoda, 9 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Mass Spectrometric Detection of Free Methyl Radicals in Methane Subjected to Electrical Discharge, by Natalija N. Dogramadzi, Kiro F. Zmbov, 5 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

The Crystal Structure of Sodium Trichloromercurate (II) Dihydrate, by Stjepan Malcic, 7 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

The Use of the Radioactive Indicators in the Study of the Beryl Crystal Lattice, by Slobodan Ristic, Rade Draskovic, 9 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

The Recovery of X-Irradiated Salmonella Typhimurium by Means of Highly Polymerized Deoxyribonucleic Acids (Dna), by D. T. Kanazir, O. Z. Cecuk, 12 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Studies About the Analytical Significance of Some Reductions. - Vanadium-Triose-Reductone Complex and Uranyl-reductic Acid Complex, by J. M. Hojman, V. G. Drazic, 13 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Scientific
Physics (Contd)

Measurement of Safety-Rod Effectiveness of the Zero Energy Reactor "RB", by N. Ralsic, D. Popovic, 7 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Gamma-Gamma Angular Correlations in Tm^{169} , by Stevan D. Koicki, M. Jovan, 9 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol IX, 1959.
AEC-Tr-4597

Comparison of Experimental and Theoretical Results for Ionization Cross Sections of Inert Gases, by M. G. Kurepa, 11 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol XIV, No 4, 1963, pp 187-193.
AEC-Tr-5737/4

The Influence of the Fluid and the Powder Concentration of Orthokinetic Flocculation in Suspensions, by D. S. Jovanovic, 14 pp.
SERBO-CROATIAN, per, Bilten Inst za Nuklearne Nauke "Boris Kidric", Vol XIV, No 4, 1963, pp 219-232.
AEC-Tr-5737/4

Resistances in Relative Motion Between Phases of a Granular Medium, 6 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 27, 1963.
OTS 63-11451/2
PL-480

The Fundamental Experiments of R. A. Bagnold, by Nikola Petrovic, 6 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 27, 1963.
OTS 63-11451/2
PL-480

An Analysis of the Formulae Computation of Bed-Load, 9 pp.
SERBO-CROATIAN, per, Saopštenja, Vol X, No 27, 1963.
OTS 63-11451/2
PL-480

Theory of Function Generators Operating With Cathod Ray Tube, by O. I. Petrenko.
UKRAINIAN, per, Elementi Avtomatiki, No 2, 1962,
pp 26-41.
*FTD-TT-64-379

Miscellaneous

Prehistoric Technology, by S. A. Semenov, 211 pp.
RUSSIAN, bk.
Barnes & Noble

Psychology and Pedagogy, by L. V. Zankov, 10 pp.
RUSSIAN, per, Voprosy Psikh, No 6, Nov, Dec 1963,
pp 3-11.
JPRS 23985

Scientific
Miscellaneous (Contd)

Problems of Personality Formation in the School Child
in the Light of Upbringing Problems, by L. L. Bozhovich,
13 pp.
RUSSIAN, per, Voprosy Psikh, No 6, Nov, Dec 1963, pp
12-22.
JPRS 23985

Personality Psychology and Social Practice, by
A. G. Kovalev, V. N. Myasischev, 15 pp.
RUSSIAN, per, Voprosy Psikh, No 6, Nov, Dec 1963,
pp 23-34.
JPRS 23985

Typologically Conditioned Differences in Learning
Labor Skills, by M. R. Shchukin, V. I. Ul'yanov-Lenin,
23 pp.
RUSSIAN, per, Voprosy Psikh, No 6, 1963, pp 35-51.
JPRS 23985

Effect of Work Duration Upon Reaction as Effectuated
by the Intensity of a Visual Signal, by
A. Ye. Ol'shannikova, 14 pp.
RUSSIAN, per, Voprosy Psikh, No 6, 1963, pp 52-62.
JPRS 23985

The Physiology of Immediate Memory, by
Ol'ga Bureshova, 16 pp.
RUSSIAN, per, Voprosy Psikh, No 6, Nov, Dec, 1963,
pp 63-75.
JPRS 23985

Regulations of the European Atomic Energy Community.
FRENCH, per, Journal Officiel des Communautes
Europeennes, Vol V, No 57, 1962, pp 1633-1652.
*AERE-Harwell

Jules Verne: The Man Who Invented the Future, by
Franz Born.
GERMAN, bk, 102 pp.
Prentice Hall

Scientific Reporters, Where are You, 6 pp.
HEBREW, per, Mada, Vol VIII, No 3, Dec 1963, p 140.
JPRS 23836

Punched-Tape Typewriters on the European Market and
Their Applicability to Documentation, by H. H. Bernstein,
12 pp.
ITALIAN, rpt, 1963.
AERE-Harwell-Tr-990

Speech Signals in Automation Technology Preliminary
Observations, by Tatiana Slama-Cazacu, 32 pp.
RUMANIAN, per, Revista de Psihologie, Vol IX, No 4,
1963, pp 519-541.
JPRS 23830

INFORMATION RECEIVED DURING APRIL

ON COVER-TO-COVER TRANSLATIONS

Astronomicheskii Zhurnal, Vol XXXIX, No 2, 1962.	Amer Inst of Phys Sov Astron - AJ Vol VI, No 2
Astronomicheskii Zhurnal, Vol XXXIX, No 3, 1962.	Amer Inst of Phys Sov Astron - AJ Vol VI, No 3
Astronomicheskii Zhurnal, Vol XXXIX, No 4, 1962.	Amer Inst of Phys Sov Astron - AJ Vol VI, No 4
Astronomicheskii Zhurnal, Vol XXXIX, No 5, 1962.	Amer Inst of Phys Sov Astron - AJ Vol VI, No 5
Astronomicheskii Zhurnal, Vol XL, No 2, 1963.	Amer Inst of Phys Sov Astron - AJ Vol VII, No 2
Astronomicheskii Zhurnal, Vol XL, No 3, 1963.	Amer Inst of Phys Sov Astron - AJ Vol VII, No 3
Astronomicheskii Zhurnal, Vol XL, No 4, 1963.	Amer Inst of Phys Sov Astron - AJ Vol VII, No 4
Astronomicheskii Zhurnal, Vol XL, No 5, 1963.	Amer Inst of Phys Sov Astron - AJ Vol VII, No 5
Avtomatika i Telemekhanika, Vol XXIV, No 9, 1963.	Instru Soc of Amer
Doklady Akademii Nauk SSSR, Earth Science Sections, Vol CXLIII, No 1-6, 1962.	Amer Geol Inst
Doklady Akademii Nauk SSSR, Biological Sciences Section, Vol CXLVIII, No 1-6, 1963.	CB
Doklady Akademii Nauk SSSR, Biological Sciences Section, Vol CXLIX, No 1-6, 1963.	CB
Doklady Akademii Nauk SSSR, Chemical Technology Section, Vol CL, CLI, No 1-6, 1963.	CB

Doklady Akademii Nauk SSSR, Mathematics Section,
Vol CLIII, No 1-6, 1963.

Amer Math Soc
Sov Math - Dok
Vol IV, No 6

Fizika Tverdogo Tela, Vol V, No 9, 1963.

Amer Inst of Phys
Sov Phys-Solid State
Vol V, No 9

Fiziologiya Rastanii, Vol X, No 4, 1963.

CB

Geokhimiya, No 5-8, 1963.

Scripta Technica

Izvestiya Vysshikh Uchebnykh Zavedeniy MViSSO
SSSR po Razdelu Radiotekhnika, Vol VI, No 6, 1963.

JPRS 23935

Kolloidnyi Zhurnal, Vol XXV, No 3, 1963.

CB

Kristallografiya, Vol VIII, No 5, 1963.

Amer Inst of Phys
Sov Phys-Crystal
Vol VIII, No 5

Metallurg, No 1, 1961; No 2-8, 1962.

Acta Metallurgica

Radiokhimiya, Vol IV, No 4, 1962.

CB

Steklo i Keramika, Vol XVIII, No 1-11, 1961.

CB

Teplofizika Vysokikh Temperatur, Vol I, No 1, 1963.

CB

Vestnik Akademii Meditsinskikh Nauk SSSR, Vol XVIII,
No 12, 1963. (NY-7890)

*JPRS

Vestnik Akademii Meditsinskikh Nauk SSSR, Vol XIX,
No 1, 2, 1964. (NY-9136)

*JPRS

Vestnik Svyazi, No 1, 1964.

JPRS 23981

Voprosy Inzhenernoy Seysmologii, No 8, 1963.

JPRS 24051

Zhurnal Tekhnicheskoi Fiziki, Vol XXXIII, No 9, 1963.

Amer Inst of Phys
Sov Phys-Tekh Phys
Vol VIII, No 9

* In Process

Table of contents follows for the above cover-to-cover translations.

SOVIET ASTRONOMY

AJ

A Translation of "*Astronomicheskii Zhurnal*"

(Russian Original Vol. 39, No. 2, pp. 185-392, March-April, 1962)

Vol. 6, No. 2, pp. 145-316

September-October, 1962

CONTENTS

	PAGE	RUSS. PAGE
Novae as a Possible Source of Cosmic Rays. <u>E. R. Mustel'</u>	145	185
Dynamics of Nova Envelopes. <u>V. G. Gorbatskii</u>	154	198
Supernova Outbursts and the Interstellar Medium. <u>I. S. Shklovskii</u>	162	209
The Nature of the Emission from the Radio Galaxy Cygnus A. <u>N. S. Kardashev,</u> <u>A. D. Kuz'min, and S. I. Syrovatskii</u>	167	216
The Luminosity Effect of Radio Galaxies. <u>Yu. P. Pskovskii</u>	172	222
Some Relations in the Theory of Radiation Scattering. <u>V. V. Sobolev</u>	178	229
The L_{α} -Radiation Field in Planetary Nebulae. <u>T. F. Pleshkova</u>	182	235
An Identification of Exciting Stars and a Determination of the Parameters of Emission Nebulae from Radio-Astronomical Data. <u>A. D. Kuz'min and R. I. Noskova</u>	186	241
Radiative Thermal Conductivity of a Fully Ionized Plasma. <u>T. D. Kuznetsova and</u> <u>D. A. Frank-Kamenetskii</u>	191	247
Determination of the Coordinates of Planetary Nebulae from Photographs taken with an Objective Prism. <u>Yu. L. Frantsman</u>	198	256
Solar Radio Emission on a Wavelength of 8 mm. <u>A. E. Salomonovich</u>	202	260
The Structure of the Solar Corona on February 15, 1961 from Observations at Dzhankoi. <u>A. T. Nesmyanovich</u>	210	270
The Fine Structure of the Spot-Formation Zones. <u>K. F. Kuleshova</u>	213	273
On the Temperature of the Dust Component of the Protoplanetary Cloud. <u>V. S. Safronov</u>	217	278
Possible Existence of a Ring of Comets and Meteorites Around Jupiter. <u>S. K. Vsekhsvyatskii</u>	226	290
On the Ring Encircling Jupiter. <u>I. T. Zotkin</u>	236	303
The Microstructure of the Lunar Surface. <u>N. P. Barabashov and V. I. Garazha</u>	237	305
Experience in Image Converter Photography of Galaxies in H_{α} Light on the 2.6-Meter Reflector of the Crimean Astrophysical Observatory. <u>M. M. Butslav, I. M. Kopylov,</u> <u>V. B. Nikonov, A. B. Severnyi, and K. K. Chuvaev</u>	244	315
Contact Photography of Faint Emission Objects. <u>I. V. Volkov, V. F. Esipov, and</u> <u>P. V. Shcheglov</u>	253	323
A New Mirror-Lens Objective. <u>T. S. Belorossova, N. V. Merman, and M. A. Sosnina</u>	260	330
Investigation of Instrumental Errors of a Photographic Zenith Tube. <u>V. A. Naumov</u>	264	335
Temperature Effects on Determination of the Angular Value of a Micrometer Screw Turn in the Ocular Micrometer of the ZT-180 Zenith Telescope, Using the Method of Wide Scale Pairs. <u>A. A. Gurshtein</u>	272	345
A Diurnal Term in Time-Service Observations. <u>N. S. Kalikhevich</u>	275	349
Available From Amer Inst of Phys Sov Astron - AJ Vol VI, No 2		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
A Determination of the Nonuniformity of Astronomical Time by Means of a Molecular Generator. <u>M. D. Sopel'nikov</u>	279	355
BRIEF COMMUNICATIONS		
On the Structure of the Spiral Arm in Orion. <u>I. I. Pronik</u>	284	362
The Emission Star HD 51585. <u>V. P. Arkhipov</u>	286	363
Wavelengths of Forbidden Lines of Sulfur in Nebulae. <u>V. F. Esipov</u>	287	365
A Low Power High Voltage Converter for Photoelectric Instruments. <u>B. P. Potapov</u>	289	367
A Photoelectric Attachment to a Printing Chronograph. <u>B. A. Kamochkin and S. S. Tovchigrechko</u>	291	369
BOOK REVIEWS		
A. Pannekoek, A History of Astronomy. <u>Yu. G. Perel'</u>	293	372
Josip Kleczek, Astronomical Dictionary. <u>Yu. G. Perel'</u>	296	374
CHRONICLES		
The Eleventh General Assembly of the International Astronomical Union in Berkeley. <u>P. G. Kulikovskii</u>	298	376
Available From Amer Inst of Phys Sov Astron - AJ Vol VI, No 2		

SOVIET ASTRONOMY

AJ

A Translation of "*Astronomicheskii Zhurnal*"
(Russian Original Vol. 39, No. 3, pp. 393-587, May-June, 1962)

Vol. 6, No. 3, pp. 317-448

November-December, 1962

CONTENTS

	PAGE	RUSS. PAGE
Nonstationarity of Spectra of Young Sources of Nonthermal Radio Emission. N. S. Kardashev	317	393
4-mm Radio Emission from Venus. A. G. Kislyakov, A. D. Kuz'min, and A. E. Salomonovich	328	410
The Spatial Structure of the Solar Corona. L. É. R. Mustel'	333	418
X-Ray Emission from Flares. A. S. Dvoryashin, L. S. Levitskii, and A. K. Pankratov	340	428
An Investigation of the Spectrum of the Solar Corona in the Wave-Length Region 7800-12,000 Å During the Total Solar Eclipse of February 15, 1961. V. G. Kurt	349	439
The Visibility of Sunspots on the Solar Disc and the East-West Asymmetry of Solar Activity. II. P. R. Romanchuk	354	445
On the Observed Depths of Sunspots. V. F. Chistyakov	363	459
Masses and Forms of Planetary Nebulae. G. S. Khromov	370	468
Methods of Investigation of Thin, Dark Nebulae by Means of Star Counts. T. A. Uranova	376	476
On the Amount of Water Available in a Free State on Mars. A. L. Lebedinskii and G. I. Salova	390	494
The Diffusion of Comets. K. A. Shteins and S. Ya. Sture	398	506
On Perturbations in the Translational-Rotational Motion of a Satellite and Planet Caused by their Oblateness. V. T. Kondurav'	405	516
Determination of the Position of the Moon's Center of Mass from Photographic Observations. N. F. Bystrov	412	527
The Magnitude Equation Due to Coma of an Astrograph Objective. L. A. Golovina	416	532
BRIEF COMMUNICATIONS		
Observations of the Spectra of Solar Radio Outbursts in the 10-25 Mc Region on July 14 and 18, 1961. L. G. Sodin, S. Ya. Braude, and A. V. Men'	423	542
The Zemplene Theorem for a Hot Gas in Equilibrium with Radiation. V. S. Imshennik	426	545
On Intergalactic Absorption. I. D. Karachentsev	427	546
The Proper Motion of the Star BD +40 deg 4124 Associated with Nebula S 213. N. M. Artyukhina	429	549
On the Cause of Nova Outbursts. T. A. Eminadze	431	551
Improved Device for Suppressing "Spurious Pulses" of Transit Contact Micrometer. S. S. Tovchigrechko	433	554
Computation and Improvement of the Proper Motions of Stars by Means of Electronic Computers. L. Reizin'	436	557

(Contd)

Available From Amer Inst of Phys
Sov Astron - AJ
Vol VI, No 3

ASTRONOMICHESKII ZHURNAL
Vol XXXIX, No 3, 1962.

CONTENTS (continued)

	PAGE	RUSS. PAGE
CHRONICLE		
Conference on General and Applied Problems of Theoretical Astronomy. <u>E. A. Grebnikov</u> . . .	440	562
Plenum of the Commission on the History of Astronomy. <u>Yu. G. Perel'</u>	442	564
Available From Amer Inst of Phys		
Sov Astron - AJ		
Vol VI, No 3		

SOVIET ASTRONOMY

AJ

A Translation of "*Astronomicheskii Zhurnal*"

(Russian Original Vol. 39, No. 4, pp. 569-776, July-August, 1962)

Vol. 6, No. 4, pp. 449-608

January-February, 1963

CONTENTS

	PAGE	RUSS. PAGE
The Astronomical Unit of Length, <u>A. A. Mikhailov</u>	449	569
On the Nature and Origin of Comets, <u>V. G. Fesenkov</u>	459	583
On the Nature of Radio Galaxies, <u>I. S. Shklovskii</u>	465	591
On the Isotropy of Primary Cosmic Rays, <u>G. G. Getmantsev</u>	477	607
Precision Measurements of the Spectrum of the Discrete Source Cassiopeia-A in the Centimeter Region, <u>K. S. Stankevich</u>	480	610
Spectrophotometry of AG Pegasi, <u>V. P. Arkhipova and O. D. Dokuchaeva</u>	483	613
On the Spatial Structure of the Solar Corona. Part II. <u>E. R. Mustel'</u>	488	619
Hydrogen Lines in the Spectra of Prominences, <u>V. V. Sobolev</u>	497	632
Observations of the Solar Radio Emission on Meter Wavelengths During the Total Solar Eclipse of February 16, 1961. <u>Yu. I. Alekseev, V. I. Babii, V. V. Vitkevich,</u> <u>M. V. Gorelova, and A. G. Sukhovei</u>	504	643
On the Radius of Venus. II. <u>D. Ya. Martynov</u>	511	653
Observations of Radio Emission from Venus and Jupiter at 8 mm Wavelength, <u>A. D. Kuz'min and A. E. Salomonovich</u>	518	660
On the Observation of the Occultation of Stars by Saturn's Rings, <u>M. S. Bobrov</u>	525	669
On the Plasma Nature of a Comet's Head, <u>L. S. Marochnik</u>	532	678
The Gegenschein as an Effect Produced by the Scattering of Light from Particles of Interplanetary Dust, <u>L. M. Gindilis</u>	540	689
The Scattering of Light in a Nonsteady-State Medium, <u>S. A. Kaplan</u>	549	702
On the Stability of Stellar Rotation, <u>V. V. Porfir'ev</u>	555	710
A Secondary Energy Standard for the Spectral Region $\lambda\lambda$ 2450-26,000 Å, <u>G. P. Sitnik</u>	558	715
New Examples of Capture in the Three-Body Problem, <u>V. M. Alekseev</u>	565	724
An Unsolved Astrometrical Problem, <u>A. A. Yakovkin</u>	573	736
The Stability of a Gravitating Cylinder Against Asymmetrical Oscillations in the Presence of a Magnetic Field, <u>M. V. Vyazovskii</u>	580	746
BRIEF COMMUNICATIONS		
Determination of the Height of the Homogeneous Atmosphere and the Extra-Atmospheric Velocity of a Meteor, <u>L. A. Katasev</u>	583	750
The Radio Spectrum of the Galactic Nucleus, <u>V. G. Malumyan</u>	585	752
Interstellar Absorption Near the Supernova of 1672, <u>É. S. Brodskaya and N. B. Grigor'eva</u>	586	754
Polarization Observations of β Lyrae, <u>N. M. Shakhovskoi</u>	587	755
An Analysis of Periodic Solar Activity, <u>L. I. Gudzenko and V. E. Chertoprud</u>	590	758
Cosmic Rays and Some Astrophysical Phenomena, <u>Nikola St. Kalitsin</u>	591	760

(Contd.)

Sov Astron - AJ
Vol VI, No 4

ASTRONOMICHESKII ZHURNAL
Vol XXXIX, No 4, 1962.

CONTENTS (continued)

	PAGE	RUSS. PAGE
An Empirical Relation between the Rotational and Orbital Momenta of the Major Planets. <u>T. A. Goloborod'ko</u>	592	761
The Structure of Icy Comet Nuclei. <u>B. Yu. Levin</u>	593	763
Neutral Hydrogen in the T-Association Tau T2. <u>G. B. Sholomitskii</u>	595	765
LETTERS TO THE EDITOR		
On Gordon and Pichakhchi's Paper, "Emission by Hydrogen Atoms Excited by Synchrotron Radiation from Relativistic Electrons." <u>V. V. Ivanov</u>	597	767
Eclipsing Binaries and the Dispersion of the Velocity of Light in a Vacuum. <u>V. A. Bunin</u>	598	768
BOOK REVIEWS		
Structure and Evolution of the Stars. <u>M. Schwarzschild</u>	600	770
Physical Processes within the Stars. <u>D. A. Frank-Kamenetskii</u>	600	770
CHRONICLES		
Conference-Seminar of the Working Group on the Kinematics and Dynamics of Stellar Systems. <u>B. I. Fesenko</u>	602	772
Abstracts: Radiophysics	603	774
New Books on Astronomy	605	775
Available From Amer Inst of Phys Sov Astron - AJ Vol VI, No 4		

SOVIET ASTRONOMY

AJ

A Translation of "Astronomicheskii Zhurnal"
(Russian Original Vol. 39, No. 5, pp. 777-952, September-October, 1962)

Vol. 6, No. 5, pp. 609-740

March-April, 1963

CONTENTS

	PAGE	RUSS. PAGE
Extreme Ultraviolet Solar Radiation and the Structure of the Solar Atmosphere in Active and Undisturbed Regions. G. S. Ivanov-Kholodnyi and G. M. Nikol'skii	609	777
On the Relative Intensities of the Coronal Lines Fe XIII λ 10 747 and λ 10 798. V. G. Kurt. . .	620	792
The Relationship Between Chromospheric Flares and Prominences in Active Regions. Yu. M. Slonim	625	798
The Longitude Distribution of Active Regions on the Sun and the Problem of Geomagnetic Disturbances. É. R. Mustel'.	638	813
Properties of M-Type Corpuscular Streams, Found from Analysis of Their Effect on the Troposphere. B. D. Fomenko.	653	833
Deformation of the Gas Disk of the Galaxy. T. A. Lozinskaya and N. S. Kardashev	658	840
Polarization of 21-cm Radiation of the Crab Nebula. V. A. Udal'tsov	665	849
The Heating of Interstellar Gas by Cosmic Rays. G. G. Getmantsev	670	856
Hydrogen Distribution in Some Planetary Nebulae. É. V. Tutchaninova	674	862
The Stability of Filaments of Gas-Dust Nebulae. T. V. Popova.	679	868
Quantitative Interpretation of Emission-Line Profiles in Wolf-Rayet Spectra. S. V. Rublev. . .	686	879
On the Theory of Stellar Shock Waves. I. A. Klimishin.	692	887
Retardation of Stellar Rotation. V. F. Belevich	696	894
Isotropic Space with Discrete Gravitational-Field Sources. On the Theory of a Nonhomogeneous Isotropic Universe. M. F. Shirokov and I. Z. Fisher	699	899
On the Relativistic Theory of the Metagalaxy. G. Paal	706	911
Distribution of Comets of the Jupiter Group. III. K. A. Shteins.	709	915
Vibrational Transition Probabilities for Band Systems of Some Diatomic Oxides. F. A. Ortenberg and V. B. Glasko	714	921
On One Case of Central Motion. N. N. Makeev.	718	927
The Additional Acceleration in the Motion of Celestial Bodies. R. A. Saakyan.	721	931
The Region of Convergence of Series Expansions of the Coordinates of Unperturbed Motion. N. B. Elenevskaya	726	938
CHRONICLE		
Plenum of the Commission on the History of Astronomy. Yu. G. Perel'.	735	951
Available From Amer Inst of Phys		
Sov Astron - AJ		
Vol VI, No 5		

SOVIET ASTRONOMY

AJ

A Translation of "Astronomicheskii Zhurnal"

(Russian Original Vol. 40, No. 2, pp. 209-398, March-April, 1963)

Vol. 7, No. 2, pp. 161-310

September-October, 1963

CONTENTS

	PAGE	RUSS. PAGE
The Thickness of the Gas Disk of the Galaxy from 21-cm Observations. <u>T. A. Lozinskaya</u> and <u>N. S. Kardashev</u> (E)	161	209
Observations of Discrete Radio Sources at 3.2 cm. <u>V. F. Zakharenkov</u> , <u>N. L. Kaidanovskii</u> , <u>Yu. N. Pariskii</u> , and <u>V. A. Prozorov</u> (E)	167	216
The Mass of the Filamentary Nebulae (The Loop) in Cygnus. <u>G. B. Sholomitskii</u> (E)	172	223
Radio Emission from Solar Active Regions in the Millimeter Region (E)	177	229
Radiative Transfer in the Continuous Spectrum in the Absence of Thermal Equilibrium. <u>D. A. Frank-Kamenetskii</u> (T)	182	235
The Investigation of the N III Recombination Spectrum in Stellar Envelopes and Nebulae. VI. The Equations of Statistical Equilibrium for the Lower Excited Levels of C II, N III, and O IV. <u>A. A. Nikitin</u> and <u>O. A. Yakubovskii</u> (T/E)	189	245
Diffusion of Resonance Radiation in Stellar and Nebular Atmospheres. II. A Layer of Finite Thickness. <u>V. V. Ivanov</u> (T)	199	257
The Origin of Heavier-Than-Calcium Elements. <u>G. S. Malkiči</u> (T)	207	268
Behavior of Light in a Pulsating Universe. <u>Priyansy Sengupta</u> (T)	213	277
A Relativistic Model Universe. <u>V. S. Brezhnev</u> (T)	215	280
Wave Motions in Comet Tails. <u>L. S. Marochnik</u> (T/E)	218	284
On the Origin of the Moon. II. The Growth of the Moon in the Circumterrestrial Swarm of Satellites. <u>E. L. Ruskol</u> (T)	221	288
The Heat Balance of the Lunar Surface Layer During a Lunation. <u>V. D. Krotikov</u> and <u>O. B. Shchuko</u> (T/E)	228	297
Fragmentation of Meteoric Bodies. <u>B. Yu. Levin</u> (E/T)	233	304
The Dynamics of the Nonstationary Galaxy. <u>I. L. Genkin</u> (T)	239	312
Spherical Star Clusters in a Quasi-Stationary State. <u>T. A. Agekyan</u> (T)	243	318
The Height of the Explosion of the Tunguska Meteorite. <u>K. G. Ivanov</u> (T)	251	329
The Relation between Photometric Systems. <u>V. Straizhis</u> (T)	253	332
Extra-Atmospheric Spectrophotometric Standards. Energy Distribution in the Spectra of Selected Stars in CGS Units. <u>A. V. Kharitonov</u> (E)	258	339
Emission Spectra of Rarefied Molecular Gases Excited by a Mixed Beam of Protons and Hydrogen Atoms. <u>G. N. Polyakova</u> , <u>Ya. M. Fogel'</u> , and <u>Ch'iu Yu-mei</u> (E)	267	351
The Generalized Problem of Motion About Two Fixed Centers and Its Application to the Theory of Artificial Earth Satellites. <u>E. P. Aksekov</u> , <u>E. A. Grebenikov</u> , and <u>V. G. Demin</u> (T)	276	363
Re-evaluation of the Struve Method for Determining Latitude from Transit Observations in the Prime Vertical. <u>V. V. Nesterov</u> (E)	283	373

Available From Amer Inst of Phys
Sov Astron - AJ
Vol VII, No 2

(continued)

ASTRONOMICHESKII ZHURNAL

Vol XL, No 2, 1963.

CONTENTS (continued)

	PAGE	RUSS. PAGE
BRIEF COMMUNICATIONS		
21-cm Observations of the Radio Source Sagittarius A. <u>T. M. Egorova</u> (E)	290	382
The Possible Role of the Intergalactic Medium in Maintaining Gas Motions in the Halo. <u>V. M. Byakov</u> (T)	291	384
Distance Moduli of the Nearest Galaxies, Derived from Cepheids. <u>Yu. P. Pskovskii</u> (E)	293	385
The Reality of the Open Cluster NGC 7039 (Cr 431). <u>W. Schöneich</u> (E)	294	387
BOOK REVIEWS		
Fundamental Astrometry, V. V. Podobed. Reviewed by <u>V. P. Sheglov</u> (R)	297	390
Advances in Space Science and Technology, Volume 3, Edited by F. I. Ordway, III. Reviewed by <u>V. G. Kurt</u> (R)	299	392
Radar Studies of Meteoric Phenomena. <u>B. L. Kashcheev</u> and <u>V. N. Lebedinets</u> . Reviewed by <u>I. S. Astapovich</u> (R)	300	393
CHRONICLE		
The Third Plenum of the Commission on the Physics of Stars and Nebulae. <u>V. V. Ivanov</u> (R)	304	396
Available From Amer Inst of Phys Sov Astron - AJ Vol VII, No 2		

SOVIET ASTRONOMY

AJ

A Translation of "Astronomicheskii Zhurnal"

(Russian Original Vol. 40, No. 3, pp. 401-598, May-June, 1963)

Vol. 7, No. 3, pp. 311-462

November-December, 1963

CONTENTS

	PAGE	RUSS. PAGE
The Corona and the 11-Year Cycle of Solar Activity, <u>M. N. Gnevyshev</u> , ... (T/E)	311	401
Stability Criterion for Hydrostatic Equilibrium, <u>G. F. Sitnik</u> , ... (T)	319	413
Dependence of the Contrast of Faculae on Wavelength. Determination of the Spectrophotometric Temperatures of Faculae, <u>V. D. Kuz'minykh</u> , ... (T/E)	323	419
The Difference between the H_{α} and H_{β} Line Profiles of a Facula and the Photosphere, <u>O. N. Mitropol'skaya</u> , ... (T/E)	328	427
The Structure of the Solar Atmosphere in Active and Undisturbed Regions. Ionization of Hydrogen and Helium, <u>R. A. Gulyaev, K. I. Nikol'skaya, and G. M. Nikol'skii</u> , ... (T/E)	332	433
The K_{232} Line Profile and the Structure of the Solar Atmosphere, <u>V. N. Obridko</u> , ... (T/E)	342	446
Plasma Phenomena and Supernova Outbursts, <u>D. A. Frank-Kamenetskii</u> , ... (T)	349	455
Cosmic Rays in Metagalactic Space, <u>V. L. Ginzburg and S. I. Syrovatskii</u> , ... (T)	357	466
The Formation of Sunspots and Solar Magnetic Fields, <u>I. P. R. Romanchuk</u> , ... (T)	365	477
Thermoelectric Phenomena on the Sun. II. Thermal Currents in the Central Parts of the Sun, <u>G. M. Shtil'shtein</u> , ... (T)	372	487
The Theory of Radiation Scattering in Planetary Atmospheres, <u>I. N. Minin and V. V. Sobolev</u> , ... (T)	379	496
Interaction between Solar Corpuscular Streams and Cometary Atmospheres. II. "Collapsing" Envelopes. Radio-Frequency Emission, <u>L. S. Marochnik</u> , ... (T/E)	384	504
Photoelectric Observations of Zodiacal Light from a High-Altitude Observatory, <u>N. B. Divari and S. N. Krylova</u> , ... (E)	391	514
Stellar Density Distribution in the Globular Cluster M15, <u>P. N. Kholopov</u> , ... (E)	399	523
The Two-Color Diagram and the Galactic Distribution of Open Clusters, <u>W. Schöneck and N. S. Nikolow</u> , ... (E)	407	534
The Effect of Water Vapor on the Optical Properties of the Atmosphere, <u>E. A. Makarova, G. F. Sitnik, and N. I. Kozhevnikov</u> , ... (T/E)	411	539
Motion of the Jacobini-Zinner Comet from 1933 to 1946, <u>Yu. V. Evdokimov</u> , ... (T/E)	415	544
Determination of Diurnal Nutation from Observation of Bright Zenith Stars at Poltava, <u>N. A. Popov</u> , ... (E)	422	553
The Discovery of the Earth's Diurnal Nutation, <u>N. N. Pariiskii</u> , ... (T/E)	424	560
The Determination of Latitude Variations from Observations of Zenith Program Stars, <u>S. V. Drozdov</u> , ... (T)	427	561
Available From Amer Inst of Phys Sov Astron - AJ Vol VII, No 3		(continued)

ASTRONOMICHESTKII ZHURNAL
Vol XL, No 3, 1963.

CONTENTS (continued)

	PAGE	RUSS. PAGE
Determination of the Earth's Topographic Surface with a Relative Error of the Order of the Square of the Oblateness of the Earth's Ellipsoid. <u>I. F. Monin</u>(T)	435	571
BRIEF COMMUNICATIONS		
The Pulsation of Rotating Stars. <u>V. V. Porfir'ev</u>(T)	441	579
The Determination of Distances to Radio Sources. <u>R. D. Dagesamanskii</u> <u>and A. A. Korchak</u>(T)	443	582
The Possibility of Application of the "Radiating" Electron Theory to Describe the Generation of γ Radiation in Chromospheric Flares. <u>R. E. Guseinov</u>(T/E)	444	584
BOOK REVIEW		
Fundamentals of Cosmic Electrodynamics. S. B. Pikel'ner. Reviewed by <u>V. F. Dokuchaev</u> . . (R)	447	587
CHRONICLES		
Radio Astronomy in Australia. <u>V. V. Vitkevich</u>(R)	449	589
Conference on Photographic Methods of Observing Artificial Earth Satellites. <u>M. I. Ilenko</u>(R)	454	596
New Books on Astronomy. <u>G. Khromov</u>(R)	456	596
ABSTRACTS		
Radiophysics(R)	457	597
Available From Amer Inst of Phys Sov Astron - AJ Vol VII, No 3		

SOVIET ASTRONOMY

AJ

A Translation of "*Astronomicheskii Zhurnal*"

(Russian Original Vol. 40, No. 4, pp. 661-781, July-August, 1963)

Vol. 7, No. 4, pp. 463-598

January-February, 1964

CONTENTS

	PAGE	RUSS. PAGE
An Analysis of Some Mechanisms for the Development of Magnetic Fields in Radio Sources.		
<u>S. B. Pikel'ner</u> (T)	463	601
Acceleration by Radiation and the Generation of Fast Particles under Cosmic Conditions.		
<u>V. N. Tsytovich</u> (T)	471	612
Behavior of the Cosmic-Ray Energy Spectrum at High Energies. <u>V. M. Byakov</u> (T)	480	625
Polarization of Radio Waves Passing through a Transverse Magnetic Field Region		
in the Solar Corona. <u>V. V. Zheleznyakov and E. Ya. Zlotnik</u> (T/E)	485	633
Emission Profiles Formed in Moving Stellar Envelopes. II. Outflow at a Radially		
Decreasing Speed. <u>S. V. Rublev</u> (T)	492	643
Polarimetric Observations of the Magnetic Variable HD 215441. <u>N. S. Polosukhina</u> (E)	498	651
A Reclassification of Galactic Supernovae, with Tentative Identifications of the 1928		
and 1902 Outbursts. <u>Yu. P. Pskovskii</u> (E)	501	654
An Evolutionary Interpretation of the H-R Diagram for the Orion-Nebula Cluster.		
<u>A. G. Masevich and E. V. Ketok</u> (E/T)	505	659
Structure and Far Ultraviolet Radiation of the Upper Stellar Atmosphere. I. Continuous		
Emission of Hydrogen and Helium. <u>G. M. Nikol'skii</u> (T)	512	668
Ultraviolet Emission Lines in the Envelope of β Lyrae. <u>V. Ya. Alduseva and I. N. Glushneva</u> (E)	519	678
Positions and Proper Motions of Several Novae. <u>N. M. Artyukhina</u> (E)	522	682
A Study of the Globular Cluster M 13. <u>Z. I. Kadla</u> (E)	528	691
Relative Spectrophotometric Measurements of Certain Solar Chromospheric Lines Observed		
during the Total Solar Eclipse of February 15, 1961. <u>A. I. Stolov</u> (E)	532	697
Latitude and Height Dependence of Atmospheric Disturbances Caused by Type M Solar		
Corpuscular Streams. <u>B. D. Fomenko, I. V. Bonelis, and V. V. Kubyshekin</u> (E)	534	700
Structure of the Equations of Cosmic Electrodynamics. <u>M. A. Gintsburg</u> (T)	536	703
Some Features of the Martian Polar Caps and the Hypothesis that They Arise from		
Photographic Irradiation. <u>N. N. Sytinskaya</u> (E)	541	710
Cause of Ionization of Cometary Molecules. <u>L. S. Marochnik</u> (T/E)	544	714
Lunar Effects on Zodiacal Brightness. <u>N. B. Divari</u> (E)	547	717
Density of Meteoric Matter in the Vicinity of the Earth's Orbit, from Radar Observations		
of Meteors. <u>V. N. Lebedinets</u> (T/E)	549	719
Notes on the Theory of Ionization of Meteor Trails. III. Ionization Due to Air Molecules		
and Atoms Reflected from a Meteoroid. <u>A. M. Furman</u> (T/E)	559	733

Available From Amer Inst of Phys

Sov Astron - AJ

Vol VII, No 4

(continued)

ASTRONOMICHESKII ZHURNAL
Vol. XL, No 4, 1963.

CONTENTS (continued)

	PAGE	RUSS. PAGE
Turbulence of a Conducting Fluid in a Strong Magnetic Field. <u>P. S. Iroshnikov</u> (T)	566	742
Theory of the Magnetogravitational Instability of a Sphere with Variable Density. <u>V. A. Vardanyan and R. S. Oganessian</u> (T)	572	751
Small-Amplitude Brightness Variation of Stars. <u>A. S. Sharov</u> (R)	574	754
Influence of the Figure of the Moon on Its Motion. <u>V. T. Kondurav</u> (T)	576	757
Averaging the Measured Heights of Celestial Bodies. <u>R. V. Kunitskii</u> (T)	583	767
BRIEF COMMUNICATIONS		
Results of a Spectrophotometric Study of Southern Milky Way Regions. <u>E. B. Kostyakova</u> . (E)	586	771
On the Evolution of a Semiclosed World. <u>I. D. Novikov</u> (T)	587	772
Note on the Nature of δ C Ma Variables. <u>G. T. Olinik and V. V. Porfir'ev</u> (T)	588	774
Period of Variation of Characteristic Dimensions of Circulation on the Sun. <u>M. A. Klyakotko</u> (T)	590	776
Remarks on the Magnetic Field in the Tail of the Comet Mrkos 1957d. <u>V. M. Yuzhakov</u> (T/E)	591	779
LETTER TO THE EDITOR		
<u>R. N. Ikhsanov</u> (T/E)	593	780
Available From Amer Inst of Phys Sov Astron - AJ Vol VII, No 4		

SOVIET ASTRONOMY

AJ

A Translation of "*Astronomicheskii Zhurnal*"

(Russian Original Vol. 40, No. 5, pp. 785-957, September-October, 1963)

Vol. 7, No. 5, pp. 599-736

March-April, 1964

CONTENTS

	PAGE	RUSS PAGE
Neutrino Radioactivity and Its Role in Astrophysical Processes. <u>V. N. Baier and I. B. Khriplovich</u> . (T)	599	785
Radiation Emission from the Orion Nebula in the 0.85-1.7 μ Wavelength Region. <u>V. I. Moroz</u> . (E)	601	788
Origin of Cometary Nebulae. II. <u>É. A. Dibai</u> . (T)	606	795
The Role of Radiation Pressure in the Dynamics of Planetary Nebulae. <u>G. S. Khromov</u> . (T)	609	799
The Development of Perturbations of Arbitrary Form in a Homogeneous Medium at Low Pressure. <u>A. G. Doroshkevich and Ya. B. Zel'dovich</u> . (T)	615	807
Gravitational Spheres of the Major Planets, Moon and Sun. <u>G. A. Chebotarev</u> . (T)	618	812
Absolute Measurements of Solar Energy in the Spectral Region 3382-10,000 Å. <u>M. S. Murasheva and G. F. Sitnik</u> . (E)	623	819
The Frequency Spectrum of the Slowly Varying Component of Solar Radio Emission. <u>V. V. Zheleznyakov</u> . (T/E)	630	820
The Mechanism of Type II Bursts of Solar Radio Emission. <u>S. B. Pikel'ner</u> and <u>M. A. Gintsburg</u> . (T)	639	842
A Spectrophotometric Study of Four Bright Prominences. <u>N. A. Yakovkin</u> and <u>M. Yu. Zel'dina</u> . (E)	643	847
Boundary Conditions at the Surface of Star Models. <u>G. V. Ruben</u> . (T/E)	649	855
Abundances of Nitrogen and Oxygen in the Envelopes of Novae. <u>V. G. Gorbatskii</u> and <u>A. A. Nikitin</u> . (E/T)	656	865
Photometric Distances to Galaxies and the Red Shift. <u>A. V. Zasov</u> . (E)	659	868
Occulted Galaxies and an Experimental Verification of the General Theory of Relativity. <u>Yu. G. Klimov</u> . (T)	664	874
A Table for the Reduction of Photometric Observations of the Zodiacal Light for the Effect of Tropospheric Scattering. <u>V. G. Fesenkov</u> . (T/E)	670	882
New Data on the Structure of the Lunar Surface. <u>N. F. Kuprevich</u> . (E)	677	889
A Determination of the Dispersion of the Absolute Magnitudes of ρ Cygni Type Stars. <u>V. P. Arkhipova</u> . (E)	686	897
A Reappraisal of Interstellar Light Absorption in the Galaxy. <u>A. S. Sharov</u> . (E)	689	900
Reddening Curves in the U, B, V System. <u>V. Straižys</u> . (E/T)	699	912
Two-Body Motion with Corpuscular Radiation. <u>T. B. Omarov</u> . (T)	707	921
Influence of Atmospheric Dispersion on Photographic Star Positions. <u>L. A. Golovina</u> . (T/E)	720	929
The Possible Influence of Lateral Refraction on Observational Results. <u>P. P. Loginov</u> . (T)	723	944

Available From Amer Inst of Phys

Sov Astron - AJ

Vol VII, No 5

(continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
BRIEF COMMUNICATIONS		
Luminosity Variations of the Object Identified with the Radio Source ZS 273.		
<u>A. S. Sharov and Yu. N. Efremov</u> (E)	727	950
The Spectrum of Nova Herculis 1963. <u>M. Ya. Orlov and M. G. Rodrigues</u> (E)	729	952
Facula-Photosphere Contrast in the Region $\lambda\lambda$ 6700-21,000 Å.		
<u>V. G. Kuz'minykh and G. P. Sitnik</u> (E)	730	954
A New Determination of the Orbital Elements of Seven Visual Binaries.		
<u>A. V. Bessalov</u> (T/E)	733	956
Available From Amer Inst of Phys Sov Astron - AJ Vol VII, No 5		

Automation and Remote Control

A translation of Avtomatika i Telemekhanika, a publication of the Academy of Sciences of the USSR

Vol. 24, No. 9

(Russian Original Dated September, 1963)

March, 1964

CONTENTS

	PAGE	RUSS. PAGE
A Problem in the Synthesis of an Optimal Control, Solved by the Method of Dynamic Programming. <u>G. E. Kolosov</u> and <u>R. L. Stratonovich</u>	1061	1165
The Solution of a Linear Problem in Optimal Control. <u>V. F. Dem'yanov</u> and <u>V. V. Khomenyuk</u>	1068	1174
An Existence Theorem in Terminal Control Problems. <u>L. S. Kirillova</u>	1071	1178
The Problem of Analytic Regulator-Design. <u>N. S. Pryakhin</u>	1075	1183
Some Problems of Optimum Control <u>L. B. G. Pittel'</u>	1078	1187
Absolute Stability of Nonlinear Automatic Control Systems with Tachometer Feedback. <u>B. Zh. Maigatin</u>	1082	1202
Structural Independence of Single Loop Control Systems. <u>E. S. Pyatnitskii</u>	1102	1213
The Method of Moments in the Theory of Optimal Control of Systems with Distributed Parameters. <u>A. G. Butkovskii</u>	1106	1217
On One Automaton that is Asymptotically Optimal in a Random Medium. <u>V. Yu. Krylov</u>	1114	1226
On a Way of Speeding up Instrument Correlation Analysis. <u>G. A. Ball</u>	1117	1229
The Measurement of the Definiteness and Accuracy of Prediction in the Determination of Characteristics of Complex Objects of Automation by Statistical Methods. <u>N. S. Raibman</u>	1123	1236
The Reliability of Information-Transmission Systems of Arbitrary Structure, Taking into Account the Value of the Information Transmitted. <u>A. K. Kel'mans</u>	1134	1250
The Problem of Structural Reliability in a System for Sequential Information Collection. <u>A. L. Raikin</u>	1143	1260
On the Probability of Receiving Telemetry Messages when the Apparatus at the Central Point Can Fail and Be Repaired. <u>O. I. Bronshtein</u>	1149	1267
The Average Duration of False Pulses and a Unit Distortion Method for Analyzing Telemetering Noise Stability. <u>N. V. Pozin</u>	1153	1272
Methods for Forming Code Combinations for Multi-Elements Codes with Multi-Letter Alphabets. <u>A. G. Mamikonov</u>	1159	1279
The Programming of Digital Computers for the Processing of Information by the Method of Least Squares. <u>L. N. Volgin</u>	1164	1284
The Application of the Polynomial-Equation Method for the Determination of the Characteristics of an Object in a Self-Adjusting System. <u>R. S. Rutman</u>	1169	1289
Contactless Photopotentiometer. <u>S. V. Svechnikov</u>	1172	1292

Available From Instrument Society of America

DOKLADY
of the
ACADEMY of SCIENCES of the U.S.S.R.
(DOKLADY AKADEMII NAUK SSSR)

EARTH SCIENCE SECTIONS

Vol. 143, Nos. 1-6

(Russian original dated March-April, 1962)

February 1964

CONTENTS

Page

GEOPHYSICS

THE INFLUENCE FUNCTION FOR SMALL PERTURBATIONS IN A BAROCLINIC ISOTHERMALLY STRATIFIED ATMOSPHERE, by L. A. Dikly	1
GAMMA-RAY INTENSITY OVER THE SEA, by A. F. Fedorov and G. V. Samokhin	3
PROPAGATION OF ELASTIC WAVES BY THE DETONATION OF GAS MIXTURES UNDER WATER, by G. S. Yevdokimov, B. L. Kaplan, S. M. Kogarko, S. A. Loviya, A. S. Novikov, and L. N. Solodilov	5
THE REDUCTION OF A SYSTEM OF DIFFERENTIAL EQUATIONS USED IN SHORT-TERM WEATHER FORECASTING TO A SYSTEM OF ALGEBRAIC EQUATIONS, by I. A. Kibel'	6

GEOLOGY

NEW DATA ON THE FOSSIL FLORA FROM BEDS CORRESPONDING TO THE CRETACEOUS- PALEOGENE BOUNDARY IN THE ZEYA-BUREYA DEPRESSION, by G. M. Brattseva ...	8
A NEW LOKOSOVO SUITE IN JURASSIC DEPOSITS OF THE MIDDLE OB', by F. G. Gurari ...	10
COMBINED USE OF AGE DATA AND MINERAL ANALYSIS IN PALEOGEOGRAPHIC PROBLEMS, WITH REFERENCE TO THE BASIN OF THE LENA, by G. P. Dubar'	13
AN OCCURRENCE OF A RAISED BEACH OF THE BLACK SEA IN THE BERDA VALLEY, by N. N. Karlov	15
THE CHEKUROVKA MAMMOTH AND ITS FOOD SUPPLY, by S. S. Korzhuyev and R. V. Fedorova	16
THE ABSOLUTE AGE OF THE EASTERN ANTARCTICA CRYSTALLINE BASEMENT, by A. Ya. Krylov, P. S. Voronov and Yu. I. Silin	18
MOLLUSKS OF THE GENUS CORBICULA FROM THE QUATERNARY OF THE BAYKAL AREA, by N. A. Logachev and S. M. Popova	21
COMPOSITION OF THE BITUMENS MIGRATING FROM PARENT ROCKS AND THE ACCUMULATION OF THESE BITUMENS IN TRAPS, by S. G. Neruchev	23
NEW DATA ON THE PERMIAN-TRIASSIC BOUNDARY IN THE SEVERNAYA DVINA BASIN, by N. A. Pakhtusova and M. I. Shlahkin	25
DISPLACEMENT OF PERMIAN-TRIASSIC COMPLEXES ALONG THE SOUTHEAST PAMIR FAULTS, by S. V. Ruzhentsev	28
THE ASHE SUITE IN THE CHUSOVAYA RIVER BASIN, by I. S. Stepanov	30
AGE OF METAMORPHIC ROCKS IN THE NORTHEAST OF THE USSR AND SIGNS OF REPEATED METAMORPHISM, by L. V. Filsov	32
THE DEVONIAN ALKALIC IGNEOUS COMPLEX IN THE NORTH OF THE KUZNETSK ALATAU, by M. G. Berger	34
OOLITIC ROCKS OF THE TYUMEN' SUITE IN THE WEST SIBERIAN LOWLANDS, by T. I. Gurova	36
NATURE OF SOLID BITUMENS IN THE RESERVOIR ROCKS OF THE SHEBELA GAS- CONDENSATE DEPOSIT, by O. V. Zaritskaya and P. V. Zaritskiy	39
FOSSIL SOILS OF THE VALDAY INTERSTADIAL, by T. D. Morozova	40
AGE AND FOSSILS OF THE BOUNDARY UNITS BETWEEN THE EOCENE AND OLIGOCENE IN THE AKHALTSIKH BASIN, by K. G. Tatiyeva	43

Available From American Geological Institute

(Contd)

DOKLADY AKADEMII NAUK SSSR,
Earth Science Sections,
Vol CXLIII, No 1-6, 1962.

CONTENTS (Contd)	Page
USE OF GEOPHYSICAL DATA FOR TECTONIC ZONING (IN THE SOUTHEASTERN URAL-VOLGA REGION), by V.A. Klubov	46
NEW DATA ON THE HELVETIAN OF THE SOUTHWESTERN MARGIN OF THE RUSSIAN PLATFORM, by L.N. Kudrin	48
NEW DATA ON THE STRATIGRAPHY OF LOWER JURASSIC SEDIMENTS IN THE PSHEKHA RIVER BASIN (NORTHWESTERN CAUCASUS), by G.P. Kornov and K.O. Rostovtsev	51
THE EFFECT OF RECENT AND CONTEMPORARY TECTONIC MOVEMENTS ON METHANE-BEARING BEDS AND GAS-BLOWOUT ZONES IN THE DONETS BASIN, by G.A. Kon'kov	53
COMPOSITE GEOLOGIC SECTION OF LOWER CARBONIFEROUS TERRIGENOUS DEPOSITS IN NORTHWEST BASHKIRIA, by M.Kh. Musin, V.N. Chernomorskiy and A.D. Nadezhkin	56
THE EASTERN BOUNDARY OF THE FOLDED BASEMENT OF THE RUSSIAN PLATFORM AND ITS TECTONIC RELATION TO THE HERCYNIAN URAL FOLDBELT, by I.S. Ogarinov and F.I. Khat'yanov	58
NEW DATA ON THE UPPER DEVONIAN GEOLOGY OF THE SOUTHEASTERN SIDE OF THE TOKMOVO ARCH, by A.I. Lyashenko and N.S. Il'ina	60
OCCURRENCES OF PSILOPHYTON IN THE DEVONIAN ALONG THE MIDDLE REACHES OF THE KOLYMA, by B.V. Popelyayev and M.I. Terekhov	63
INFLUENCE OF SOLAR RADIATION ON CRUSTAL TEMPERATURE CONDITIONS, by N.M. Frolov	65
NEW DATA ON VOLCANIC PROCESSES IN CENTRAL AREAS OF THE RUSSIAN PLATFORM, by N.S. Ilyina and D.L. Frukht	68
INTERPRETATION OF MAGNETIC FIELDS OVER ULTRABASIC COMPLEXES: SERPENTINIZATION AND MAGNETIC PROPERTIES, by A.G. Komarov, S.V. Moskaleva, V.M. Belyayev and V.I. Ilyina	70
EVOLUTIONARY FEATURES OF BIVALVE MOLLUSKS OF THE BLACK SEA IN LATE QUATERNARY TIME, by L.A. Nevesskaya	72
ROLE OF DISCONTINUOUS FAULTS IN THE STRUCTURE OF THE MAGNITOGORSK SYNCLINORIUM, by K.P. Plyusnin	74
THE VERTICAL RANGE OF POLYMETALLIC MINERALIZATION IN GORNAYA OSSETIA, by V.B. Chernitsyn	77
CONGLOMERATE OF THE BITAK FORMATION IN THE CRIMEA, by T.I. Dobrovol'skaya and O.V. Snegireva	78
MINERALOGY	
ASCHARITE FROM BAKAL IRON-ORE DEPOSIT, THE URALS, by A.S. Varlakov	81
EPIDOTE CONTAINING STRONTIUM AND RARE EARTHS FROM THE NORTH CAUCASUS, by G.D. Afanas'yev, V.V. Ploshko, and G.M. Varahal	83
THE FIRST SPECIMEN OF NONMETAMICT AESCHYNITE, FROM THE VISHNEV HILLS, URAL, by A.G. Zhabin, V.B. Aleksandrov, M.Ye. Kazakova, and V.G. Feklichev	86
CRYSTAL STRUCTURE OF SEARLESITE, NaBSi ₂ O ₅ (OH) ₂ , by V.B. Kravchenko and G.B. Bokiy	89
HALURGITE, A NEW BORATE, by V.V. Lobanova	91
PALYGORSKITE FROM PALEOGENE BEDS OF SOUTHEASTERN TURKMENIA, by Ye.A. Shabayeva	94
SPHENE-AMPHIBOLE IJOLITE-MELTEGITE FROM THE LOVOZERO MASSIF, by V.I. Gerasimovskiy and A.I. Polyakov	98
INCLUSIONS OF CASSITERITE AND FLUORITE IN CRYSTALS FROM PEGMATITES OF VOLHYNIA, by V.I. Kalyuzhnyy and Yu.V. Lyakhov	100
DICKITE, by N.V. Logvinenko and V.A. Frank-Kamenetskiy	102
PARAGENETIC TYPES OF GARNET FROM ULTRABASIC ROCKS AND ECLOGITES, by N.V. Solov'ev	105
URANIFEROUS CRISTOBALITE AND TRIDYMIT FROM LIMESTONE, by N.A. Glagolev	108
THE FIRST SPECIMEN OF WAGNERITE FROM THE USSR, by V.I. Flin'ko	109
CRYSTAL STRUCTURE OF ROSENBUSCHITE, (Ca, Na) ₃ (Zr, Ti) [Si ₂ O ₇] (O, F) ₂ , by R.P. Shibayeva and N.V. Belov	113
PETROGRAPHY	
THE BASIC ROCKS ON THE EAST SIDE OF THE VORONEZH RIDGE, by M.M. Veselovskaya and V.V. Kirsanov	117
THE PRIMARY COLOR OF LOWER TRIASSIC SANDSTONES OF THE PECHORA COAL MEASURES, by L.I. Khaytser, L.N. Ivanova, and F.I. Yentsova	119
Available From American Geological Institute	(Contd)

**DOKLADY AKADEMII NAUK SSSR,
Earth Science Sections,
Vol CXLIII, No 1-6, 1962.**

CONTENTS (Contd)	Page
ALTERED BENTONITE BEDS IN THE DEVONIAN OF THE TUVA AND MINUSINSKS	
TROUGHS, by G. N. Brovko and V. T. Frolova	121
ORIGIN OF PYRITE CONCRETIONS IN JURASSIC COAL MEASURES IN THE WESTERN	
PART OF THE IRKUTSK BASIN, by V. I. Kaporulin	123
LITHOLOGY	
SECONDARY FELDSPARS IN UPPER PROTEROZOIC SEDIMENTS, by M. M. Veselovskaya ..	126
LITHOLOGY AND MINERALOGY OF THE CLAYS IN THE LOWER CARBONIFEROUS	
CARBONATE SERIES OF THE DONBASS, by N. D. Reshetnyuk and V. G. Savina	129
GEOCHEMISTRY	
ACCUMULATION OF THE IRON GROUP ELEMENTS IN PETROLEUM,	
by S. M. Katchenkov	132
GALLIUM IN THE OXIDIZED ZONES OF SOME POLYMETALLIC DEPOSITS OF EASTERN	
TRANSBAIKALIYA, by M. F. Kulikova	134
ACCUMULATION OF CARBONATES IN THE BOTTOM MUDS OF THE SIVASH,	
by M. F. Stashchuk	136
THE ROLE OF DIAGENESIS IN THE FORMATION OF MANGANESE ORES,	
by L. E. Shterenberg, G. I. Karaseva and V. B. Rychkova	138
SOME DATA ON THE COMPOSITION OF PORE SOLUTIONS IN THE BOTTOM MUDS OF	
THE SEA OF MARMARA AND THE MEDITERRANEAN SEA,	
by E. M. Yemel'yanov and V. D. Chumakov	141
DISTRIBUTION OF IRON, MANGANESE AND PHOSPHORUS IN THE LOWER OLIGOCENE	
DEPOSITS OF MANGYSHLAK, by E. S. Tikhomirova	143
CRYSTAL STRUCTURE OF THE NEW DENSE MODIFICATION OF SILICA,	
by S. M. Silshov and Academician N. V. Belov	146
EVALUATION OF THE RESULTS OF ANALYSES OF LEADS WITH SIMILAR ISOTOPIC	
COMPOSITION, by K. K. Zhilov and V. S. Urusov	149
ON THE GEOCHEMISTRY OF GERMANIUM, by A. L. Zagyanakiy	151
FORM OF THE OCCURRENCE OF URANIUM IN APATITE, by M. B. Serebryakova and	
Ye. G. Razumnaya	153

Available From American Geological Institute

DOKLADY

BIOLOGICAL SCIENCES SECTIONS

A translation of all papers in the Biological Sciences Sections of the

Proceedings of the Academy of Sciences of the USSR

(Russian Original Dated January-February, 1963)

Vol. 148, Nos. 1-6, pp. 1-276

July-August, 1963

CONTENTS

	PAGE	RUSS. ISSUE	RUSS. PAGE
BIOCHEMISTRY			
Stimulation of the Activity of Glutamic-Oxalic Transaminase in the Experimental Myocardial Infarct Zone. <u>Yu. V. Bukin</u>	1	2	452
Combined Participation of Vitamin B ₁₂ and Folic Acid in Purine Synthesis. <u>L. Ya. Areshkina, N. A. Andreeva, L. S. Kutseva, and V. N. Bukin</u>	5	3	704
Reaction of Peptides with Preparations of "pH 5-Enzymes." <u>V. V. Mosolov, I. V. Skarlat, and P. V. Afans'ev</u>	8	3	708
A Comparative Study of the Formation of Pheophytins from Chlorophyll and Its Analogs in Darkness and in Light. <u>A. A. Krasnovskii and E. V. Pakshina</u>	13	4	935
The Synthesis of Serine from Hydroxypyruvic Acid in the Living Plant. <u>V. L. Krelovich and K. M. Stepanovich</u>	17	4	939
Synthesis of Kojibiose (α -1 $\rightarrow$ 2-Diglycoside) by the Action of an Enzyme Preparation from Liver. <u>I. S. Lukomskaya and G. I. Tarasova</u>	19	4	941
Formation of Coacervate Drops on Synthesis of Polyadenylic Acid by Polynucleotide Phosphorylase. <u>A. I. Oparin and K. B. Serebrovskaya</u>	21	4	943
Membranes of <i>Micrococcus lysodeikticus</i> and Their Relation to Oxidative Phosphorylation. <u>D. N. Ostrovskii and N. S. Gel'man</u>	23	4	945
Participation of Adenosine Triphosphate in Reactions of Transfer of Glycosyl Groups. <u>A. N. Petrova</u>	27	4	949
Role of Sulfhydryl Groups in Maintenance of the Catalytically Active Structure of Aspartate-Glutamate Transaminase. <u>Yu. M. Torchinskii and A. E. Braunshtein</u>	30	4	952
Rate of Formation of Sulfur-Containing Precursors of the Keratin of Sheep Hair and Skin Following Introduction of Sulfate and Methionine. <u>A. L. Padrieva, Z. I. Volkova, and Zh. A. Feofilova</u>	34	5	1205
Interaction of Radicals of Irradiated Protein with Alkylphenols. <u>I. I. Sapezhinskii, M. S. Postnikova, and N. M. Émanuél</u>	36	5	1207
Changes in the Complex of Phenolic Substances of γ -Irradiated Potatoes Following Mechanical Injury to Them. <u>E. N. Mukhin</u>	39	6	1406
Kinetic Regularities of Suppression of Activity of Enzymes of the Succinoxidase System by Inhibitors of Free-Radical Processes. <u>I. I. Pelevina, V. M. Andreev, L. P. Lipchina, and N. M. Émanuél</u>	42	6	1408
Mechanism of Change in Violaxanthin Content During the Light Reaction of Chloroplasts. <u>V. S. Saakov</u>	45	6	1412
Available From Consultants Bureau			(Contd.)

DOKLADY AKADEMII NAUK SSSR,
Biological Sciences Section,
Vol XLVIII, No 1-6, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
BIOPHYSICS			
Role of State of Thyroid in Asthenic Syndrome after Radiation Sickness. <u>V. A. Rezonov</u> and <u>M. A. Lagun</u>	48	3	700
Determination of Spectral Sensitivity of Retinal Receptors in Dichromats. <u>N. I.</u> <u>Speranskaya</u>	50	3	702
Sensitization of Tumor Cells to Action of Ionizing Radiation by Inhibitors of Radical Reactions. <u>G. G. Afanas'ev</u> , <u>L. P. Lipchina</u> , and <u>I. I. Pelevina</u>	52	5	1199
Rate of Growth of Macrocolonies of Yeast Cells Irradiated with Ultraviolet Light of Different Wavelengths. <u>N. V. Kovyazin</u>	54	5	1202
Relationship between Threshold Illumination on Pupil of Eye Due to a Stationary Point Light Source and Background Brightness for Different Parts of the Retina. <u>N. I.</u> <u>Pinegin</u> and <u>N. P. Travnikova</u>	56	6	1403
BOTANY			
Microscopical Observations on the Mitochondria of Plant Cells. <u>L. V. Mozhaeva</u> and <u>A. L. Zhukova</u>	58	6	1415
CYTOLOGY			
The Ultraviolet Fluorescence of the Liver Cells of Albino Rats During Embryonic Develop- ment. <u>E. M. Pilshchik</u> and <u>M. V. Nikolaeva</u>	62	1	199
EMBRYOLOGY			
Electron Microscope Study of the Nerve Rudiment at Early Stages of Development. <u>E. Kh.</u> <u>Priimak</u>	65	2	477
The Fine Structure of the Ovarian Membranes of the Leech. <u>T. B. Aizenshtadt</u> and <u>V. Ya.</u> <u>Brodskii</u>	70	3	728
The Existence of a Basal Membrane between the Optic Vesicle and the Lens-Forming Ectoderm in Birds. <u>G. S. Kvinikhidze</u>	74	3	731
The Digestive Enzymes of the Placenta and the Digestive Organs of Sheep Fetuses. <u>L. T.</u> <u>Kapralova</u>	77	4	985
Importance of the Excretory System in the Development of the Müllerian Ducts in Anura. <u>D. A. Potemkina</u>	81	6	1428
EVOLUTIONAL MORPHOLOGY			
Development and Reduction of the Nasolacrimal Duct in <i>Pleurodeles waltlii</i> . <u>I. M.</u> <u>Medvedeva</u>	84	5	1215
EXPERIMENTAL MORPHOLOGY			
The Role of the Plastic State Caused by Denervation on the Reaction of the Muscle to Irradiation. <u>M. F. Popova</u>	88	1	223
Cytochemical Reactions During Histogenesis of Skin Wounds after Intramuscular Injection of Leucocytic Factors. <u>N. V. Popova</u>	92	2	465
Luminescence Microscopy of the Damaged Corneal Epithelium. <u>I. I. Orlova</u>	97	4	970
GENETICS			
Increase in the Morphine Content of Polyploid Opium Poppies (<i>Papaver somniferum</i> L.). <u>V. S. Andreev</u>	100	1	206
Overcoming a Universal Mutation Barrier with Over 100% X-Chromosome Mutations. <u>I. A. Rapoport</u>	104	3	696
Streptomycin, Radiation, and Natural Mutability. <u>N. P. Dubinin</u> and <u>T. Ya. Grozdova</u>	107	6	1397
Available From Consultants Bureau			(Contd.)

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
HISTOLOGY			
The Morphology of the Neurons and Their Synaptic Connections in Auerbach's Plexus of the Reptilian Stomach. <u>S. S. Reshetnikov</u>	111	1	202
Experimental Atherosclerosis in Guinea Pigs. <u>R. S. Goryainova</u>	114	2	437
Morphology and Topography of the Accessory Gomori-Positive Neurosecretory Elements of the Hypothalamic Region of the Albino Mouse. <u>A. L. Polenov and S. I. Yushkantseva</u>	118	2	441
A Study of the Cytoplasmic RNA of the Parotid Acinous Cells During the Secretory Cycle. <u>N. V. Nechaeva</u>	123	4	929
Afferent Innervation of the Ganglia of the Human Rectum. <u>T. L. Likhacheva</u>	127	5	1189
Protein Content of the Cytoplasm and Nuclei of the Acinar Cells During the Secretory Cycle of the Parotid Gland. <u>N. V. Nechaeva</u>	130	5	1192
Detection of Lipid Deposits in the Early Stages of Atherosclerosis. <u>T. A. Sinitsyna</u>	135	6	1394
MICROBIOLOGY			
Utilization of Glycerin by Actinomyces aureofaciens LS-B-16. <u>V. N. Shaposhnikov and V. G. Plakunova</u>	139	1	210
Identification of the Products Liberated by the Oxidation of Glycerin by Actinomyces aureofaciens LS-B-16. <u>V. G. Plakunova</u>	143	2	445
Comparative Physiology of Strains of Staphylococcus aureus 209R. Resistant or Sensitive to Tetracyclines. <u>V. N. Shaposhnikov and V. K. Plakunov</u>	146	2	448
Symbiotic Growth of Metallogenium. <u>G. A. Zavarzin and V. V. Epikhina</u>	151	4	933
Physiology of Amino-Acid Metabolism in Bacillus brevis var. G.-B. <u>V. N. Shaposhnikov, N. S. Egorov, and V. V. Korshunov</u>	153	5	1196
Keratinase Activity of Actinomycetes of the "Fradiac" Group. <u>A. G. Kuchaeva, S. D. Tapytkova, R. L. Gesheva, and N. A. Krasil'nikov</u>	156	6	1400
PARASITOLOGY			
The Penetration of Toxoplasms into Eggs in Infected Chickens. <u>A. K. Iyglste</u>	159	4	989
PHYSIOLOGY			
The Use of a Fluorometric Method for Studying the Permeability of the Tissue-Blood Barriers. <u>Yu. A. Vladimirov, F. F. Litvin, and L. B. Utevskaia</u>	161	1	227
Reflex Relationships between the Mammary Gland and the Liver. <u>I. I. Grachev and Shih Chun-yüan</u>	165	1	231
Differential Growth of the Brain in the Dog During Postnatal Ontogenesis. <u>N. I. Dmitrieva</u>	169	1	235
The Vanadium Concentration in the Blood of Ascidella aspersa. <u>V. V. Koval'skii and L. T. Rezaeva</u>	172	1	238
Properdin Content of Fish. <u>V. I. Luk'yanenko and G. A. Mikhceva</u>	175	2	469
The Direct and Transcommissural Reactive Potentials of the Roof of the Frog Midbrain. <u>Yu. B. Mantefel'</u>	179	2	473
The Agonal Type of Respiration as Reflected by Electrograms of the Medulla and the Respiratory Muscles. <u>A. M. Gurvich</u>	183	3	716
Reaction of the Vascular and Tissue Receptors of the Limb to the Action of Vibron Septique Toxin (An Electrophysiological Analysis). <u>S. V. Magaeva</u>	187	3	720
Transmission of a State of Increased Immunological Reactivity to Intact Animals by Parabiosis and Transplantation of Lymph Glands. <u>L. N. Fontalin</u>	191	3	724
Intracellular Stimulation of Various Regions of the Frog's Heart. <u>I. M. Gel'fand, S. A. Kovalev, and L. M. Chailakhyan</u>	195	4	973
Antifungal Action of the Cuticle of Eurygaster intergriceps Put. <u>A. A. Evlakhova and T. A. Sherkhurina</u>	199	4	977
Available From Consultants Bureau			(Contd)

DOKLADY AKADEMII NAUK SSSR,
Biological Sciences Section,
Vol XLVIII, No 1-6, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
Characteristics of the Primary Cortical Reactions to Electrical Stimulation of the Mesenteric Nerves. <u>S. S. Musyashchikova</u>	202	4	979
The Mechanism of the Changes in the Sensitivity of the Chemoreceptors of the Blood Vessels During Aging. <u>V. V. Frol'kis and I. V. Shchegoleva</u>	205	4	982
Changes in the Spatial Perception of Sound During Proprioceptive Stimulation. <u>N. Yu. Alekseenko</u>	207	5	1218
Hemopoietic Activity of Human Blood Serum after a Prolonged Period of Anoxia. <u>V. I. Voltkevich</u>	210	5	1221
Morphodynamics of the Glands of Internal Secretion During Immunogenesis. <u>Ya. L. Rapoport and I. I. Finkel'</u>	213	5	1224
Changes in the Sensitivity of Effectors to the Action of Nervous and Humoral Stimuli During Aging. <u>V. V. Frol'kis and N. S. Verkhatskii</u>	217	5	1228
Development of the "Spontaneous" Electrical Activity of the Sympathetic Ganglia of the Cat in Ontogenesis. <u>A. I. Sellva</u>	221		1425
PLANT ANATOMY			
Anatomic Structure of Sprouts of Conifers. <u>G. P. Belostokov</u>	223	3	712
Comparative Anatomic Analysis of the Adaptation of Leaves and Wood of Certain Azerbaidzhanian Plants to Drought Conditions. <u>Sh. G. Dadasheva</u>	228	5	1211
PLANT ECOLOGY			
Application of Partial Associations for Analysis of the Structure of Plant Communities. <u>V. I. Vasilevich</u>	232	1	214
Effect of Sowing Rates and Contact between Seeds During Swelling and Germination Upon Survival and Productivity of Kochia. <u>V. I. Svinarev and I. Khamdamov</u>	235	2	456
The Problem of the Interrelations between Genotypes of Edificator Plants and Their Ranges. <u>V. D. Lopatin</u>	238	4	956
Effect of Time Duration since Felling on Physiological Processes in Young Spruce Grown on Massive Clearings. <u>A. V. Veretennikov and L. N. Burmina</u>	240	6	1422
PLANT PHYSIOLOGY			
The Role of Oligosaccharides and Their Dynamics in the Evaluation of Winter Hardiness in Winter Wheat and Rye. <u>M. I. Rybakova</u>	244	1	217
The Effect of Gibberellin on the Growth of Grapes. <u>M. Kh. Chailakhyan and M. M. Sarkisova</u>	247	1	219
Rate of Photosynthesis Measured on Different Sides of Tomato Leaves. <u>B. L. Dorokhov</u>	252	2	459
Interaction of Heteroauxin and Gibberellin in the Formation of Roots and Shoots of Willow Cuttings. <u>R. Kh. Turetskaya, V. I. Kefeli, and E. M. Kof</u>	254	2	461
The Influence of Xylem Sap on the Development of the Green Color in Leaves. <u>V. F. Gavrilenko and B. A. Rubin</u>	257	4	948
X-ray Photography of Wood from the District Affected by the Fall of the Tungus Meteorite. <u>Yu. M. Emel'yanov and V. I. Nekrasov</u>	261	6	1418
ZOOLOGY			
Intraspecific Variability of Small Rodents. <u>T. S. Gladkina, M. N. Meier, and T. M. Mokeeva</u>	265	4	962
Histochemical Investigation of Succinic Oxidase System in Some Hydrobionts. <u>V. V. Khlebovich</u>	269	4	966

Available From Consultants Bureau

DOKLADY

BIOLOGICAL SCIENCES SECTIONS

*A translation of all papers in the Biological Sciences Sections of the
Proceedings of the Academy of Sciences of the USSR*

(Russian Original Dated March-April, 1963)

Vol. 149, Nos. 1-6, pp. 277-558

September-October, 1963

CONTENTS

	PAGE	RUSS. ISSUE	RUSS. PAGE
BIOCHEMISTRY			
Comparative Study of the Nucleotide Composition of Microsomal and Soluble RNA of Insects. N. A. Gumilevskaya and N. M. Sisakyan	277	1	198
Early Incorporation of C ¹⁴ into Phosphatides during Photosynthesis in <i>Primula obconica</i> Leaves. N. I. Zakharova	281	1	202
Role of the Adenosine Triphosphate - Adenosine Triphosphatase System in Glucose Transport. G. Kh. Bunyatyan and A. S. Oganessian	282	2	442
Application of Electro-optical Methods to the Study of <i>Escherichia coli</i> Ribosomes. E. I. Golub, G. G. Gauze, G. A. Dvorkin, and A. S. Spirin	287	2	446
Difficulties Encountered in Determining the Nucleotide Composition of Total RNA of Insects. N. A. Gumilevskaya and N. M. Sisakyan	291	2	450
Free Nucleotides of the Breast and Leg Muscles of Hens. V. I. Zhivkov	294	2	453
Water Content of Chlorophylls <i>a</i> and <i>b</i> . V. M. Kutyurin and V. P. Knyazev	296	2	456
Irregularities in Penetration of DNA into Cells in Transformation of Bacteria. S. E. Bresler, M. I. Mosevitskii, and A. L. Timkovskii ..	299	3	721
Effect of Oxygen on Binding of Dyes by Proteins during Irradiation. T. E. Pavlovskaya and A. G. Pasynskii	303	4	976
Application of the Biochemical Method of Selection of Plants for Raising their Resistance to Microorganisms. V. D. Brumshtein and L. V. Metlitskii	305	5	1197
Transport and Transformations of Labeled Metabolites in the Stems and Shoots of Plants. S. V. Durmishidze	308	5	1200
Changes in the Composition of Carbohydrates in Storage Organs of Plants Following γ -Irradiation. E. G. Sal'kova	311	5	1203
Transaminases of Dicarboxylic Amino Acids and of Glutamine in Human Brain Tumors. T. T. Berezov and N. G. Lutsenko	314	6	1436
Specificity of Methionine-Activating Enzymes and of Methionine-Accepting Ribonucleic Acids of Different Microbial Species. T. M. Ermokhina, G. N. Zaitseva, and A. N. Belozerskii	317	6	1438
N-Terminal Amino Acids and Catalytic Activity of Pepsin Obtained from Pepsinogen under Different Conditions of Activation. N. I. Mal'tsev, L. M. Glnodman, and V. N. Orekhovich	321	6	1442
Available From Consultants Bureau			(Contd)

DOKLADY AKADEMII NAUK SSSR,
Biological Sciences Sections,
Vol CXLIX, No 1-6, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
BIOPHYSICS			
Rate of Induction of Leucoses by Single and Fractionated Exposure to Radiation. S. N. Aleksandrov and K. F. Galkovskaya	325	1	194
On the Mechanism of the Biological Action of a Pulsed Magnetic Field. N. A. Solov'ev	328	2	438
The Law of Biological Adaptation. K. S. Trinchner	331	3	717
Protection by Radioprotectors (Cysteamine, Cystamine, AET) Against Radiomimetic Effect of Oleic Acid Oxidation Products. M. L. Kakushkina, N. P. Korolev, and Yu. B. Kudryashov	335	4	973
Intravital Biological Estimation of Radiation Dose in Mammals by a Count of the Percentage of Cells with Chromosome Aberrations in the Bone Marrow. N. F. Barakina, I. M. Shapiro, and M. I. Yanushevskaya	338	5	1187
Effect of Antibiotics on Radiation Injury to Yeasts. Yu. A. Kriger, A. Kh. Tambiev, and Lih Suan T'u	341	5	1190
Electron Paramagnetic Resonance Spectra Appearing after Mechanical and Heat Treatment of Natural Cystine-Containing Polymers. Karel Ulbert and P. Yu. Butyagin	345	5	1194
Changes in Luminescence in the Investigation of the Differential Spectra of Photosynthetic Organisms. N. V. Karapetyan, F. F. Litvin, and A. A. Krasnovskii	348	6	1428
Alteration of Localization of Unpaired Electrons in Irradiated Proteins by Infrared Radiation. M. K. Pulatova, É. A. Burshtein, and L. P. Kayushin.	352	6	1432
CYTOLOGY			
Nuclear Division and DNA Synthesis in the Development of Skeletal Muscle. L. Zhinkin and L. Andreeva	355	1	185
Autoradiographic Analysis of the Mitotic Cycle and of Cell Population Kinetics in the Uterine Epithelium of Mice. O. I. Epifanova	358	2	424
Relationship between Physiological Function and the Genetic Apparatus of the Cell. F. Z. Meerson, E. M. Leikina, and T. D. Beloshapkina ...	361	3	700
Effect of the Leucocyte Serum on the Mitotic Activity of Epithelium in the Crypts of the Small Intestine. A. V. Abuladze	364	4	957
A Study of the Mitotic Cycle in the Corneal Cells of Mice with the Aid of Tritium- Labeled Thymidine. M. G. Chumak	367	4	960
ECOLOGY			
A Quantitative Study of Vernal Testicular Growth in Several Species of Finches (Fringillidae). V. R. Dol'nik	370	1	191
Development of Bream and Pike-Perch Larvae at Great Depths. N. D. Belyi ...	373	5	1182
Variation of Protein Content of Blood Serum of Rainbow Trout with Age and Nutrition. N. V. Koroleva	375	5	1185
EMBRYOLOGY			
The Hemochorial Placenta of the Mink (<i>Mustela vison</i>). Z. P. Zhemkova	377	2	475
Changes in the Activity of the Lysozyme of the White of the Chick Egg during Embryogenesis. D. F. Pletsityi and V. G. Krasnyanskaya	381	2	475
The Role of the Mesothelium in the Development of the Mullerian Ducts in Anura. D. A. Potemkina	384	5	1229
ENDOCRINOLOGY			
Relationship of the Neurosecretory Factor to Growth of Amphibians. A. A. Voitkevich	389	5	1233

Available From Consultants Bureau

(Contd)

DOKLADY AKADEMII NAUK SSSR,
biological Sciences Sections,
Vol CXLIX, No 1-6, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
Changes in the Intermediate Lobe of the Hypophysis Following Experimental Action on the Adrenals, E. L. Soboleva	394	5	1237
EVOLUTIONARY MORPHOLOGY			
Factors Controlling Differentiation of the Regenerating Lens into Epithelial and Fibrous Portions, K. M. Velikanova	398	2	472
EXPERIMENTAL MORPHOLOGY			
Effect of a Tissue Extract on the Ability of the Iris to Regenerate the Lens in Tadpoles of <i>Rana ridibunda</i> , I. Korkia	401	1	205
Relation of Metabolism and Rate of Regeneration to the Size of the Regenerating Portion of the Oligochaete <i>Dero Digitata</i> , V. B. Kasinov	404	4	985
Delayed Implantation (Diapause) in Rats Kept on a Deficient Sucrose Diet, A. P. Dyban, L. P. Demkiv, and M. S. Avgustinovich	407	6	1453
Micronecrotic Foci in the Hemopoietic Organs of Mice with Transplantable Leukemia, V. M. Mantefel' and K. A. Sedov	412	6	1457
HISTOLOGY			
Structure of Synaptic Endings in the Nucleus Cuneatus, G. I. Kozlova	415	1	189
Histological Changes in the Epidermis of the Chick during Reparative Regeneration, L. B. Berlin and N. L. Kamenskaya	417	2	428
An Electron Microscopic Investigation of the Differentiation of Cartilage Cells in Regenerating Bone, L. N. Mikhailova	421	2	431
Changes of the Gastric Nervous Apparatus in Experimental Gastric Ulcer, V. N. Shvalev, O. G. Chumburidze, V. A. Andreeva, V. E. Voloskova, and I. T. Yurtsin	425	3	703
The Role of the Sympathetic Nervous System in Neurosecretory Processes in Amphibians, M. S. Konstantinova and E. A. Moiseev	429	4	963
The Afferent Innervation of the Membranes of the Sciatic Nerve in Man, T. F. Kuleshova	433	4	966
The Use of an Immuno-Luminescence Method for the Morphological Study of Experimental Rickettsioses, T. N. Khavkin and N. I. Amosenkova	436	4	969
HYDROBIOLOGY			
A Fluorescence Analysis of Lake Detritus, A. G. Rodina	440	2	434
Colonization of Dagestan Waters of the Caspian Sea by <i>Syndesmya ovata</i> , G. A. Aligadzhiev	444	3	707
MICROBIOLOGY			
Autonomous Protein Synthesis in Staphylococcus Mutants with Defective Oxidation, G. F. Gauze and A. V. Laiko	447	3	711
Effect of Increased Temperature and Complex Enzyme Preparations from <i>Aspergillus oryzae</i> and <i>A. awamori</i> on Heterofermentative Lactic Acid Fermentation, G. M. Smirnova	449	3	714
PARASITOLOGY			
Conditions of Transfer of Toxoplasms (<i>Toxoplasma Gondii</i>) from the Mother to the Foetus, V. I. Verulashvili	452	4	999
PHYSIOLOGY			
Effect of an Increased Partial Pressure of Oxygen on the Leukocyte Count in Mice, I. S. Breslav, A. G. Zhironkin, and A. M. Shmeleva	454	1	207
Available From Consultants Bureau			(Contd)

DOKLADY AKADEMII NAUK SSSR,
Biological Sciences Sections,
Vol CXLIX, No 1-6, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
Optimal Frequencies of Afferent Stimulation of the Intercalary Neurons of the Spinal Cord. G. A. Vartanyan and N. N. Vasilevskii.....	457	1	210
The Effect of the Poles of a Direct Current on Limiting Inhibition. N. P. Movchan	460	1	213
Mechanism of Action of Cholinergic Substances Introduced into the Ventricles of the Brain. G. N. Kassil', L. P. Latash, and B. M. Rutman.....	464	2	464
Venous Thermoreceptors and Chemical Heat Regulation. N. F. Glebova	468	3	742
Influence of Perfusion Rate on the Hydrolysis of Starch and Sucrose in the Intestinal Mucosa and Lumen. N. N. Iezuitova, A. M. Ugolev, and I. N. Fedyushina.....	472	3	746
Time Relationships in the Motor Analyzer in Aphasia. N. A. Kryshova and K. M. Shreingart.....	476	3	750
Formation of the Frequency Characteristic of the Cardiac Activity as a Reflection of Biological Adaptation in Chicks during Embryogenesis. T. P. Blinkova and O. V. Bogdanov.....	479	4	988
Changes in the Principal Indices of the Work of the Heart under the Influence of the Tetracycline Antibiotics. O. A. Gornazkov	482	4	991
Physiological Mechanisms of Determination of Complex Behavior of Anthropoid Apes (The Chimpanzee). A. I. Schastnyi	486	4	995
Radiotelemetering of Temperature in the Human Digestive Tract. E. B. Babitski, A. M. Sorin, A. S. Belousov, Yu. S. Zhukov, and V. I. Dimanis.....	490	5	1213
The Mechanism of the Central Action of Serotonin. R. Yu. Il'yuchenok and L. A. Nazarov.....	493	5	1217
The Electrical Responses of the Cochlea of Newborn Animals. M. P. Klyavina and A. M. Maruseva	496	5	1221
The Effect on Blood Lipids of Complete Extirpation of the Duodenum. I. V. Krivoruchenko, A. M. Ugolev, and O. E. Sherstobitov.....	499	5	1225
Asymmetry in the Duration of the Phases of the Electroencephalogram during the Act of Thinking. A. A. Genkin	503	6	1460
The Action of Adrenaline on Adreno-Receptors of the Cardiovascular System. B. N. Manukhin.....	507	6	1464
The Evolution of Neurohumoral Regulation of Excitation in Interneuronal Synapses of the Sympathetic Ganglia. V. S. Sheveleva	510	6	1468
PLANT PHYSIOLOGY			
Physiological Effect of X-Irradiated Pollen on Self-Fertilization in Corn. E. A. Britikov and Z. V. Lebedeva	513	3	460
The Effect of Nutrition on the Growth and Storage of Nitrogen by Broad Beans in a Mixed Crop with Corn. M. M. Gukova and R. I. Bogomolova	516	3	725
Causes for Different Grain Sizes in the Spikes of Barley and Wheat. Yu. B. Konovalov	519	3	728
Fixation of Atmospheric Nitrogen in Vitro by Enzymes Isolated from Legume Nodules and Higher Plants Uninoculated with Bacteria. F. V. Turchin, Z. N. Berseneva, and G. G. Zhidkikh.....	522	3	731
The Influence of Gibberellin on the Transformation of Substances in Maize Seeds during Germination. I. G. Vyval'ko	526	4	979
The Influence of Temperature on the Oxidative Phosphorylation of Preparations of Pea Mitochondria. O. A. Semikhatova and T. M. Bushueva	529	4	982
Available From Consultants Bureau			(Contd)

DOKLADY AKADEMII NAUK SSSR,
Biological Sciences Section,

Vol CXLIX, No 1-6, 1963.

CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
The Stability of the Bond between Chlorophyll and Protein in Plants with a Raised Heat Resistance. M. I. Lyutova	532	5	1206
Influence of Root Nutrition on the Behavior of the Tomato under Reduced Illumination during the Formative Period of the Sexual Elements of the Reproductive Organs. Zh. L. Roktanen	535	3	1209
The Questionable Autointoxication of Plants by Root Excretions. V. P. Ivanov...	538	6	1446
Temperature Effect on the Light Optimum for <u>Chlorella pyrenoidosa</u> Growth. N. V. Trukhin	542	6	1450
ZOOLOGY			
On the Reduction of the Number of Stages in the Larval and Nymphal Phases during the Evolution of Coccoidea (Insecta, Homoptera). N. S. Borkhsenius....	544	2	468
Hybrid Sterility as a Limiting Factor in the Distribution of Allopatric Species. V. A. Zaslavskii	546	2	470
New Data on the Distribution of the Catfish (<u>Anarhichas lupus</u> Linne), Lesser Catfish (<u>Anarhichas minor</u> Olafsen), and Long Rough Dab (<u>Hippoglossoides platessoides limandoides</u> [Bloch]) off the Northern Shores of Spitzbergen. G. P. Nizovtsev	548	3	735
A Rostraria-Type Larva of <u>Notopygos</u> sp. (Amphinomidae, Polychaeta) from the South China Sea. V. A. Sveshnikov and Ch'iu Wen-Jen, ...	551	3	738
Available From Consultants Bureau			

DOKLADY CHEMICAL TECHNOLOGY

PROCEEDINGS OF THE
ACADEMY OF SCIENCES
OF THE USSR

A translation of **DOKLADY AKADEMII NAUK SSSR**
A publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vois. 150 and 151

May-August, 1963

CONTENTS

	PAGE	RUSS. ISSUE	RUSS. PAGE
VOLUME 150			
A New Effect in the Thermal Strengthening of Glass Fibers — G. M. Bartenev and L. I. Motorina.	63	1	132
The Appearance of an Intermediate Phase on Hydrothermal Treatment of Tricalcium Silicate — P. P. Budnikov, S. M. Royak, M. M. Mayants, and Yu. S. Malinin	66	1	136
Effect of Internal Stresses on the Durability of Polymer Coatings — P. I. Zubov, L. A. Sukhareva, and Yu. P. Smirnova	70	2	359
The Effect of Evacuating Water-Cement Pastes during Vibratory Mixing on the Hardened Cement — I. N. Ushakova, E. E. Kalmykova, and N. V. Mikhailov	72	2	361
Synthesis of Invariant Systems for the Control of Dispersed Processes of Chemical Technology — B. N. Devyatov	75	3	612
Selective Fragmentation of Potassium Ores by a Thermal Method — M. M. Pavlyuchenko, Kh. M. Aleksandrovich, and A. D. Markin.	79	3	610
Absorption of the Energy of Gamma-Radiation in Macrosystems — A. Kh. Breger, V. A. Él'tekov, B. M. Terent'ev, B. I. Vainshtein, N. P. Syrkus, N. A. Krasnoshchekova, V. B. Ostrov, and V. A. Gol'din	82	4	866
The Mechanism of Extraction by Amines in Alkali — I. N. Plaksin and G. N. Shvirin. . . .	86	4	870
An Electrical Attribute of the Mass Exchange Processes Occurring during Steam Hardening of Concrete — E. S. Veksler and K. É. Goryainov.	89	5	1097
Some Properties and Structural Elements of Glasses and Crystals of the Same Composition — E. I. Galant	92	5	1100
Nonequivalent Extraction of Some Acids and Alkali Cyanide by Alkyl Amines — I. N. Plaksin and G. N. Shvirin	96	5	1104
The Conversion of Calcium Chromate-Chromite to Monochromite in Dolomitized Magnesite-Chromite Refractory — P. P. Budnikov and É. A. Él'-Rafil.	99	6	1315
Available From Consultants Bureau			(Contd)

DOPLADY AKADEMII NAUK SSSR,
Chemical Technology Section,
Vol CL, CLI, No 1-6, 1963.
CONTENTS (continued)

	PAGE	RUSS. ISSUE	RUSS. PAGE
VOLUME 151			
Physicomathematical Properties of Eutectic Mixtures of Explosives — V. K. Bobolev and L. A. Karpukhin.	104	1	155
Modification of Polymers as a Method of Obtaining Porous Structures — V. S. Georgieva, A. P. Pisarenko, and B. V. Shtarkh.	107	3	634
An Investigation of the Kinetics of Heterogenous Reactions under Nonisothermic Conditions — S. D. Fedoseev.	110	3	638
The Rates of High Temperature Carbon Recrystallization and Dissolution in Ferrite — G. K. L'vov	114	4	902
Theoretical Principles of the Crystallization Column — A. G. Anikin.	116	5	1139
Characteristic Features of Clinker Formation during the Roasting of Charges Consisting of CSH(B) and Calcium Carbonate — P. P. Budnikov, S. M. Royak, and L. A. Kroichuk	120	5	1143
Characteristic Features of Cation Exchange in Acid Medium on Cation Exchangers with Carboxylic Functional Groups — Z. A. Krivchik and N. F. Ermolenko.	125	5	1147
The Chemistry of the Action of Modifiers in Graphitized Alloys — A. A. Baranov and K. P. Bunin	128	6	1393
Available From Consultants Bureau			

TABLE OF CONTENTS

	Russian page nos.	Page
Berman, D. L. <i>On the theory of semigroups of linear operators</i>	(9-11)	1581
Borisovič, Ju. G. <i>An application of the concept of rotation of a vector field</i>	(12-15)	1584
Vostrecov, B. A. <i>Conditions for a function of many variables to be representable as a sum of a finite number of plane waves traveling in given directions</i>	(16-19)	1588
Gehman, M. M. <i>On the principle of limit amplitude</i>	(20-22)	1592
Zorič, V. <i>Boundary properties of a class of mappings in a space</i>	(23-26)	1596
Kondrat'ev, V. A. <i>Boundary value problems for elliptic equations in conical regions</i>	(27-29)	1600
Mysovskih, I. P. <i>Error estimate for a numerical solution of a nonlinear integral equation</i>	(30-33)	1603
Oskolkov, A. P. <i>Solution of boundary value problems for linear elliptic equations in an infinite domain</i>	(34-37)	1608
Orevkov, Ju. P. <i>Topological characterization of uniform properties of metric spaces</i>	(38-41)	1612
Plotkin, B. I. <i>Infinite-dimensional linear groups</i>	(42-45)	1617
Ročter, A. V. <i>Categories with division and integral representations</i>	(46-48)	1621
Tihonov, A. N. <i>Regularization of incorrectly posed problems</i>	(49-52)	1624
Tovmasjan, N. E. <i>The Dirichlet problem for an elliptic system of two second-order differential equations</i>	(53-56)	1628
Henkin, G. M. <i>Imbedding of the space of s-smooth functions of n variables into a space of sufficiently smooth functions of fewer variables</i>	(57-60)	1633
Gabisonija, O. D. <i>Estimation of the total best approximation of functions of many variables by partial best approximations</i>	(255-257)	1637
Iohvidov, I. S. <i>Operators with completely continuous iterations</i>	(258-261)	1640
Korotkov, V. B. <i>Representation of linear continuous operators by abstract functions, and imbedding theorems</i>	(262-265)	1645
Maslov, S. Ju. <i>Some methods for the definition of sets in generating bases</i>	(266-269)	1649
Platonov, V. P. <i>Periodic subgroups of algebraic groups</i>	(270-272)	1653
Porper, F. O. <i>Stabilization of the solution of the Cauchy problem for a parabolic equation with variable coefficients</i>	(273-275)	1657
Romm, B. D. <i>Decomposition into irreducible representations of the tensor product of two irreducible representations of the second-order real unimodular group (case of the two discrete series)</i>	(276-277)	1660

Available From Amer Math Society

(Contd)

Sov Math - Dok
Vol IV, No 6

DOKLADY AKADEMII NAUK SSSR,
Mathematics Section,
Vol CLIII, No 1-6, 1963.

CONTENTS (Contd)

	Russian page nos.	Page
Ronkin, L. I. <i>A property of the distribution of singularities on the boundary of a polycylinder and its application to entire functions of several variables</i>	(278-281)	1662
Ryžakov, I. Ju. <i>On a problem of S. N. Bemšteĭn</i>	(282-285)	1666
Sahnovič, L. A. <i>Certain properties of the discrete spectrum of the radial Schrödinger equation</i>	(286-289)	1670
Skubenko, B. F. <i>The asymptotic behavior of nth-order integer-element matrices and the integral invariant of a group of unimodular matrices</i>	(290-291)	1674
Fet, A. I. <i>Extremal problems for surfaces of bounded Gauss curvature</i>	(292-295)	1676
Šaiĭ, B. M. <i>A contribution to the theory of generalized groups</i>	(296-299)	1680
Ševčenko, V. I. <i>The construction of local and global homeomorphisms for a class of quaternion equations</i>	(300-302)	1684
Al'per, S. Ja. <i>Best approximation of analytic functions in the mean of order 1 on a circumference</i>	(503-506)	1687
Andrunakievič, V. A. and Rjabuhin, Ju. M. <i>The imbedding of modules</i>	(507-509)	1692
Gašimov, G. M. <i>A theorem on the uniqueness of Dirichlet series for more general behavior of the exponents</i>	(510-511)	1695
Gel'fand, I. M. and Graev, M. I. <i>The structure of the ring of finite functions on the group of second-order unimodular matrices with elements belonging to a disconnected locally compact field</i>	(512-515)	1697
Diskant, V. I. <i>Estimates for the diameter and the breadth of convex surfaces of bounded Gauss curvature</i>	(516-518)	1701
Dočev, K. <i>Some extremal properties of polynomials</i>	(519-521)	1704
Kagan, A. M. <i>Families of distributions and separating decompositions</i>	(522-525)	1707
Kamynin, L. I. and Maslennikova, V. N. <i>Boundary estimates of the solution of the third boundary value problem for a parabolic equation</i>	(526-529)	1711
Kudrjavcev, L. D. <i>Imbedding theorems for functions defined on unbounded regions</i>	(530-532)	1715
Strahov, V. N. <i>A numerical method of solving linear integral equations of convolution type</i>	(533-536)	1718
Fet, A. I. <i>Stability theorems for convex, almost spherical surfaces</i>	(537-539)	1723
Arhangel'skiĭ, A. <i>Some types of factor mappings and the relations between classes of topological spaces</i>	(743-746)	1726
Bagaeva, N. Ja. and Moiseev, N. N. <i>A method for the numerical solution of optimum control problems</i>	(747-750)	1730
Bogaevskiĭ, A. N. <i>Harmonic functions on $GL(2)$</i>	(751-753)	1734
Gurevič, B. M. <i>A class of special automorphisms and special flows</i>	(754-757)	1738
Maksudov, F. G. <i>The spectrum of singular non-selfadjoint differential operators of 2nth order</i>	(758-761)	1742
Novak, B. <i>Integral points in r-dimensional ellipsoids</i>	(762-764)	1746
Rvačev, V. L. <i>On the analytic description of certain geometric objects</i>	(765-767)	1750
Zuhovickii, S. I., Poljak, R. A. and Primak, M. E. <i>An algorithm for the solution of the convex programming problem</i>	(991-994)	1754

Available From Amer Math Society
Sov Math - Dok
Vol IV, No 6

(Contd)

DOKLADY AKADEMII NAUK SSSR,
Mathematics Section,
Vol CLIII, No 1-6, 1963.

CONTENTS (Contd)

	Russian page nos.	Page
Kaniev, S. <i>On the deviation from their boundary values of functions biharmonic in a circle</i>	(995-998)	1758
Kufarev, B. P. and Soboleva, S. V. <i>The continuum as a complete cluster set of a convergent sequence of analytic functions</i>	(999-1000)	1762
Maksudov, F. G. <i>Expansion in eigenfunctions of non-selfadjoint singular differential second-order operators depending on a parameter</i>	(1001-1004)	1764
Novikov, S. P. <i>Some properties of $(4k+2)$-dimensional manifolds</i>	(1005-1008)	1768
Pasynkov, B. <i>Universal spaces for certain space classes</i>	(1009-1012)	1773
Ponomarev, V. I. <i>Metric spaces and the continuous mappings connected with them</i>	(1013-1016)	1777
Ciřang, H. (Zieschang, H.) <i>On a problem of Neuwirth concerning knot groups</i>	(1017-1019)	1781
Volořina, M. S. <i>The generalized Cauchy formula for a first-order elliptic system</i>	(1231-1233)	1784
Gel'man, A. E. <i>Analytic solutions for a class of operator equations</i>	(1234-1237)	1788
Golovin, O. N. <i>The lattice of polyverbal operations</i>	(1238-1241)	1792
Goloso, Ju. I. and Tempel'man, A. A. <i>Likelihood ratio for hypotheses on the trend of certain Gaussian processes</i>	(1242-1244)	1796
D'jačenko, V. F. <i>Conditions for the uniqueness of a continuous solution of the problem of the decay of the discontinuity for a set of three equations</i>	(1245-1248)	1800
Isakova, E. K. <i>A general boundary value problem for parabolic equations on a plane</i>	(1249-1252)	1804
Krugljak, S. A. <i>Representations of the (p, p) group over a field of characteristic p</i>	(1253-1256)	1809
Levin, A. Ju. <i>Linear differential equations of second order</i>	(1257-1260)	1814
Sinaĭ, Ja. G. <i>On the foundations of the ergodic hypothesis for a dynamical system of statistical mechanics</i>	(1261-1264)	1818
Smirnov, Ju. I. <i>Calculation of the mathematical expectation of a quasiadditive path function on a graph</i>	(1265-1268)	1823
Smirnova, G. N. <i>Uniqueness classes of the solution of the Cauchy problem for parabolic equations</i>	(1269-1272)	1828
Fomenko, O. M. <i>The Fourier coefficients of Poincaré series of dimension -2</i>	(1273-1275)	1832
Ševčenko, V. I. <i>On an integral representation of a vector holomorphic in a ball</i>	(1276-1279)	1836
Partial table of contents for the next issue (Vol. 5, No. 1, January-February, 1964), Russian original Tom 154, Nos. 1-5		1840-m
Annual Index of Authors, Vol. 4, Nos. 1-6 (January-December 1963)		I-XV
Available From Amer Math Society		
Sov Math - Dok		
Vol IV, No 6		

Soviet Physics SOLID STATE

A Translation of the Journal "Fizika Tverdogo Tela"

(Russian Original Vol. 5, No. 9, pp. 2395-2733, September, 1963)

Vol. 5, No. 9, pp. 1743-2002

March, 1964

CONTENTS

	PAGE	RUSS. PAGE
Microwave Analogs of the Faraday, Cotton-Mouton, and Kerr Effects. <u>A. B. Roitsin</u> . . . (T)	1743	2395
The Problem of the Surface Layer in Barium Titanate Single Crystals. <u>A. V. Turik</u> . . (E/T)	1748	2402
A Statistical Method for the Investigation of Repolarization Processes in Ferro- electric Ceramics. <u>A. V. Turik</u> (E/T)	1751	2408
Electrical Properties of Bismuth-Antimony Alloys. <u>G. A. Ivanov and A. M. Popov</u> . . (E/T)	1754	2409
Electrical Conductivity and Thermoelectric Power of Bi_2O_3 in the Solid and Liquid States. <u>T. S. Zolyan and A. R. Regel</u> (E)	1762	2420
Investigation of Photoconductivity Excitation Spectra in CdS and CdSe Crystals. <u>F. I. Kreingol'd</u> (E)	1769	2428
EPR and Microwave Spectra of Octahedral Complexes of Transition Metals with the d^1 Configuration Including Inversion Splitting. <u>I. B. Bersuker</u> and <u>B. G. Vekhter</u> (T/E)	1772	2432
Energy Distribution of Secondary Electrons and Photoelectrons Excited by Soft X Rays. <u>N. G. Nakhodkin and P. V. Mel'nik</u> (E)	1779	2441
Quantum Statistical Theory of Ferromagnetic Resonance at High Temperatures. <u>O. A. Ol'khov</u> (T)	1784	2448
Temperature Dependence of the Intensity of Hydrogen Bond Bands in Raman Scattering Spectra of Gypsum and Rochelle Salt Crystals. <u>E. V. Chisler</u> (E)	1789	2455
Thermal Expansion and Melting Anomalies of Small Aluminum Crystals. <u>Yu. I. Petrov</u> (E)	1793	2461
Determination of the Interstitial Distribution of Cations from Term Splitting in Complex Oxides. <u>A. N. Men' and V. F. Naish</u> (T)	1806	2477
Ultrasonic Propagation in Semiconductors. <u>V. I. Pustovolt</u> (T)	1818	2490
Energy Distribution of Electrons in Field Emission from Germanium Films on Tungsten. <u>N. V. Mileshkina and I. L. Sokol'skaya</u> (E/T)	1826	2501
Concerning the Mechanism Underlying the Growth of Epitaxial Films of Germanium by Means of the Iodine Process. <u>G. A. Kurov</u> (E)	1833	2509
On the Problem of Electret Polarity Reversal. <u>Ya. I. Khanderek</u> (E/T)	1839	2517
Mechanism of Formation of the "Anomalous" Distribution of Residual Stresses in Heat Treatment of Single Crystals. <u>B. A. Reznikov</u> (T/E)	1845	2528
Characteristics of the Thermal Vibration Spectrum. <u>V. T. Borisov, E. Z. Vintaikin,</u> and <u>L. P. Potapov</u> (T)	1848	2530
Secondary Electron Emission of KBr Films. <u>M. V. Gomoyunova</u> (E)	1853	2538

Available From Amer Inst of Phys

Sov Phys - Solid State

Vol V, No 9

(continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Theory of the Dielectric Permittivity of Crystals. <u>V. M. Agranovich and Yu. V. Konobeev</u> . (T)	1858	2544
Certain Features of α -Particle Counting with Type I Diamonds. <u>E. A. Afanas'eva</u> and <u>E. A. Konorova</u> (E)	1866	2556
Deceleration and Inelastic Scattering of Electrons in Thin Unsupported Films of Copper. <u>I. R. Kanicheva and B. F. Barzdo</u> (E)	1870	2561
Spontaneous Dislocation Jumps in Lithium Fluoride Single Crystals. <u>V. B. Parliskii</u> , <u>A. I. Landau, and V. M. Borzhkovskaya</u> (E/T)	1876	2570
Effect of Phonon Drag on the Longitudinal Thermal emf of Semiconductors and Semimetals in a Longitudinal Magnetic Field. <u>P. S. Zyryanov</u> (T)	1880	2576
Preparation and Some Properties of Whisker and Needle-Shaped Single Crystals of Germanium, Silicon and Their Solid Solutions. <u>A. V. Sandulova, P. S. Bogoyavlenskii</u> , and <u>M. I. Dronyuk</u> (E)	1883	2580
Anisotropy of the Microhardness of Silicon. <u>A. V. Sandulova and V. M. Rybak</u> (E)	1889	2587
Continuum Theory of Asymmetric Elasticity. The Problem of "Internal" Rotation. <u>E. V. Kuvshinskii and É. L. Aéro</u> (T)	1892	2591
Strength of Vitreous Polymers as Affected by Intermolecular Interaction. <u>A. I. Gubanov</u> and <u>A. D. Chevychev</u> (T)	1898	2599
Spin-Orbit Splitting of Hole Bands in Alkali-Halide Crystals. <u>K. B. Tolpygo</u> and <u>D. I. Sheka</u> (T)	1905	2609
Theory of the Ferromagnetic Hall Effect. <u>L. É. Gurevich and I. N. Yassievich</u> (T)	1914	2620
The Problem of Resonance Curve Broadening Near the Curie Point. <u>Mông Hsien-chên</u> and <u>L. A. Davydov</u> (T/E)	1919	2627
Quantum Statistical Theory of the Overhauser Effect in Metals. <u>M. A. Kozhushner</u> and <u>B. N. Provotorov</u> (T)	1923	2633
Perminvar Effect in Complex Ni-Zn-Cr Ferrites. <u>N. Z. Miryasov and S. A. Sorokina</u> (E/T)	1928	2641
Electrical Conductivity of Mixed Alkali Glasses of the $\text{Na}_2\text{O}-\text{K}_2\text{O}-\text{GeO}_2$ System. <u>A. O. Ivanov</u> (E)	1933	2647
Some Dynamic Characteristics of Thin Permalloy Films in the Direction of the Hard Magnetization Axis. <u>R. V. Telesnin and O. S. Kolotov</u> (E)	1938	2653
Hardening During the Repeated Twinning of Calcite. <u>R. I. Garber and E. I. Stepina</u> (E)	1941	2658
Acoustoelectric Effect in n-Type Ge and Si. <u>V. D. Iskra</u> (T)	1946	2663
Theory of Current Instability in Semiconductors and Semimetals. <u>L. É. Gurevich</u> and <u>I. V. Ioffe</u> (T)	1954	2674
Electromagnetic Waves in a Semiinfinite Crystal Near the Region of Exciton Absorption. <u>V. I. Sugakov</u> (T)	1959	2682
Some Results of an Investigation of the Luminescence of Polarized $\text{ZnS}:\text{Cu}:\text{Cl}$ Layers. <u>Yu. S. Blank and I. I. Yatlanko</u> (E)	1963	2688
Thermal Conductivity of Chromite Spinel. <u>I. I. Vishnevskii, A. S. Frenkel</u> , and <u>V. N. Skripak</u> (E)	1966	2691
Nature of the Phenomenon Involved in the Generation of Photocurrent Pulses in Cadmium Selenide Crystals. <u>V. L. Vinetskii, I. D. Konozenko, and S. I. Shakhovtsova</u> (E/T)	1971	2698
BRIEF COMMUNICATIONS		
Relaxation Properties of BaTiO_3 Single Crystals Containing Antimony as an Impurity. <u>S. V. Bogdanov, V. A. Rassushin, and D. K. Sinkha</u> (E)	1975	2703
Impurity Photoconductivity in Germanium Irradiated by High-Energy Electrons. <u>R. Yu. Khansevarov</u> (E)	1976	2704
Determination of the Resonance Line Width of Spin Waves. <u>S. S. Starobinets</u> (E)	1978	2707
Photoconductivity of Sulfur Single Crystals at High Hydrostatic Pressures. <u>N. A. Tikhomirova and V. M. Fridkin</u> (E)	1980	2709
Available From Amer Inst of Phys Sov Phys - Solid State Vol V, No 9		(continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Notes on the Paper by P. V. Gul'tyaev and A. V. Petrov "The Specific Heats of a Number of Semiconductors". <u>É. N. Khabarov</u>	(T) 1981	2711
Diffusion and Relaxation of the Proton Spin in Irradiated Polyethylenes. <u>G. R. Khutsishvili</u>	(T) 1983	2713
Concerning Certain Properties of Narrow Band Gap Semiconductors. <u>V. L. Bonch-Bruevich</u>	(T) 1984	2714
Concerning a Possible Recombination Mechanism. <u>V. L. Bonch-Bruevich</u> <u>and E. B. Sokolova</u>	(T) 1986	2717
About the ΔI_s Effect During Plastic Deformation of Ferromagnets. <u>I. Ya. Dekhtyar</u> <u>and D. A. Levina</u>	(T/E) 1987	2719
Spin-Lattice Relaxation of the Fe^{3+} Ion in $K_2(Co, Fe)(CN)_6$. <u>P. P. Pashinin</u> <u>and A. M. Prokhorov</u>	(E) 1990	2722
Energy of Dislocations and Etch Pits in Sodium Chloride Crystals. <u>É. M. Nadgornyi</u>	(T) 1991	2723
Nonresonance Paramagnetic Absorption of Sound Due to Spin-Lattice Relaxation. <u>V. A. Golenishchev-Kutuzov</u> and <u>E. G. Kharakhash'yan</u>	(E) 1992	2725
Internal Friction Recovery After Plastic Deformation in LiF Single Crystals. <u>A. A. Bliatanov</u> , <u>A. V. Panov</u> , and <u>M. P. Shaskol'skaya</u>	(E/T) 1994	2726
Determination of the Dielectric Loss-Angle Tangent of Dielectrics by the Resonance Circuit Method. <u>P. F. Veselovskii</u> and <u>Yu. D. Suchkov</u>	(E) 1995	2728
Radiation Defects in Cadmium Sulfide Crystals. <u>O. R. Niyazova</u> and <u>M. A. Kaneev</u>	(E) 1997	2731

Available From Amer Inst of Phys
Sov Phys - Solid State
Vol V, No 9

SOVIET PLANT PHYSIOLOGY

A translation of Fiziologiya Rastenii

(Russian Original Dated July-August, 1963)

Vol. 10, No. 4, pp. 331-426

January-February, 1964

CONTENTS

	PAGE	RUSS. PAGE
Transformation of Externally Absorbed Amino Acids in Corn Roots. <u>E. I. Ratner</u> and <u>S. F. Ukhina</u>	331	393
On the Frost Resistance of the Roots of Fruit and Berry Crops in Siberia. <u>G. V. Vasil'chenko</u> . . .	336	400
Formation of Carbohydrates during Photosynthesis at Various Light Intensities. <u>A. A. Nichiporovich, G. A. Slobodskaya, and L. T. Kamushkin</u>	340	405
Amino Acid Uptake by Conducting and Assimilating Tissues of Leaves. <u>M. I. Brovchenko</u>	349	416
Synthesis of Thiourea Derivatives and Determination of their Activity as Growth Substances. <u>B. T. Markin</u>	356	426
Alcohol Formation and Excretion by Plant Roots under Anaerobic Conditions. <u>G. M. Grineva</u> . . .	361	432
Transfer of Phosphorus, Calcium, and Sulfur from One Plant to Another through their Root Systems. <u>G. V. Nikolaev</u>	370	441
Interaction of Maize and Bean Shoots. <u>V. P. Ivanov, G. A. Yakobson, and B. S. Fomenko</u>	375	447
Biosynthesis of Isoleucine from its α, β -Dihydroxy Analogue in Various Plant Seedlings. <u>Z. S. Kagan, V. L. Kretovich, and G. Cheishner</u>	384	458
The Role of Gibberellins in Photoperiodism, Vernalization, and Stratification. <u>M. Kh. Chailakhyan, T. V. Nekrasova, L. P. Khlopenkova, and V. N. Loshnikova</u>	389	465
BRIEF COMMUNICATIONS		
Effect of Presowing Hardening of Summer Wheat Seeds on Drought Resistance under Conditions of the Tselinny Region. <u>P. D. Uglov</u>	399	477
Effect of Anaerobiosis on Plant Respiration in Connection with Photoperiodism. <u>T. N. Konstantinova</u>	401	480
Mechanism of Action of Poisons on Plants. <u>G. A. Odumanova-Dunaeva</u>	405	483
PRACTICAL APPLICATIONS		
The Physiological Basis for Early Harvesting Dates in Table Beet. <u>A. A. Kolesnik</u> and <u>V. Ya. Anisimov</u>	408	486
METHODS		
A Method for Determination of Free Auxins and Inhibitors in Woody Plant Tissues. <u>V. I. Kefeli</u> and <u>R. Kh. Turetskaya</u>	414	493
Determination of Nitrates in Plant Material. <u>N. S. Danilova</u>	418	497
On the 70th Anniversary of the Birthday of Tikhon Nikolaevich Godnev. <u>M. N. Goncharik</u> and <u>A. A. Shlyk</u>	420	499
CHRONICLE		
Scientific Events	423	502
Available From Consultants Bureau		



GEOCHEMISTRY

GEOKHIMIYA

No. 5

1963

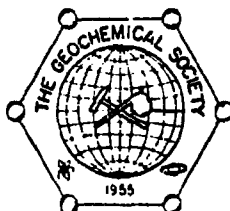
CONTENTS

Ryashenko, B.N. Physicochemical data on the system $\text{Me}_2\text{CO}_3\text{--MeHCO}_3\text{--CO}_2\text{--H}_2\text{O}$ and their application to the hydrothermal process	463
Radkevich, R.O., A.P. Klintsova and L.I. Kotel'nikova. Geochemistry of sphalerites of the Sadon Deposit (Northern Caucasus).	480
Ivanova, G.F. Content of tin, tungsten and molybdenum in granites enclosing tin-tungsten deposits	492
Dvornikov, A.G., A.E. Vasilevskaya and V.P. Shcherbakov. Mercury dispersion aureoles in the soils of the Nagol'nyi Range	501
Smirnov, S.I. Cadmium in waters of the supergene zone	510
Pachadzhyanov, D.N., G.A. Bandurkin, A.A. Migdisov and Yu. P. Girin. Data on the geochemistry of manganese nodules from the Indian Ocean	520
Mun, A.I. and Z.A. Bazilevich. Iodine in surface brines and waters of Central Kazakhstan	528
Serikov, Yu.I. Anomalous Radioactivity of clays	535

DISCUSSION

Rafal'skii, R.P. On the transport and deposition of uranium by hydrothermal solutions and the role of complexing in these processes. . .	540
Naumov, G.B. On the role of complexing in the transport and deposition of uranium by hydrothermal solutions	544

Available From Scripta Technica



GEOCHEMISTRY

GEOKIMIYA

No. 6

1983

CONTENTS

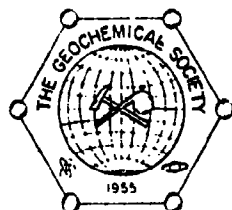
Gerling, E.K., L.K. Levskii and I.M. Morozov. On the diffusion of radiogenic argon from minerals	551
Levskii, L.K. Diffusion of helium from stony meteorites.	556
Shukolyukov, Yu.A. Xenon isotopes in monazites	562
Leonova, L.L. Uranium and thorium in hydrothermally altered rocks of the Kayl-Ompul Mountains (Northern Tien Shan)	566
Milashov, V.A. Parageneses of secondary minerals in kimberlites	572
Mogarovskii, V.V. The relation between the rhenium and selenium contents in molybdenite from the Kadzharan Deposit (Armenian SSR)	580
Tugarinov, A.I., V.B. Naumov and En Chang. Experimental study of alkali-carbonate metasomatism.	584
Akhmanova, M.V., A.V. Kuryakin and G.V. Yukhnovich. Determination of hydroxyl groups in silicate minerals by infrared spectrophotometry	596
Kamentsev, I.E. Effect of the temperature of crystallization on the amount of impurities in the structure of quartz and on the parameters of its unit cell	601
Sorokin, V.I. and V.A. Shorygin. The chalcocite-chalcopyrite-bornite-pyrrhotite (pyrite) association under hydrothermal conditions	605
Poskotin, D.L. and M.V. Lyubimova. Biogeochemical prospecting for copper sulfide deposits.	620

BRIEF COMMUNICATIONS

Agamirov, A.Sh. Geochemical balance of radioactive elements in the Black Sea Basin	630
--	-----

NEWS

All-union conference on wall rock alteration and on its role in ore deposition	634
Available From Scripta Technica	



GEOKIMIYA

No. 7

1963

CONTENTS

Khaturov, S.I., A.S. Kadik, and E.B. Izobely. Estimate of the thermal effect of the separation of water from felsic melts based on data for the system albite-water	637
Malinin, S.D. An experimental investigation of the solubility of enstatite and witherite under hydrothermal conditions	650
Abramovich, I.I., E.B. Vyshkovskaya, and E.F. Dorofeyeva. Manganese in the igneous rocks of the Altai-Sayan folded region. Lyakhovich, V.V. Distribution of Li, Rb, and Sr in dikes related to granitoids	668
Borina, A.F. Aqueous salt solutions at high pressures and temperatures as possible media of transport of ore-forming elements in hydrothermal processes	674
Strotenetskaya, N.G. Conditions of formation of microcline in pegmatites in Kazakhstan	681
Khalilov, A.D. and E.S. Minkarov. An X-ray study of the lomonosovite-murmanite group of minerals	691
Nikolayev, D.S. and E.I. Yefimova. On the age of iron-manganese concretions from the Indian and Pacific oceans	698
Rodionov, D.A. Distribution of the arithmetic mean in cases of asymmetric distribution of content	703

BRIEF COMMUNICATIONS

Kostorin, A.V., D.F. Korolov and V.E. Kopylov. Rare earths in the Chokhos lignite deposit	721
Sitnin, A.A. and I.S. Razina. Chemical composition of lithium micae from metasomatically altered granites	724
Shukolyukov, Yu.A. and S.L. Mirkina. Determination of the age of monazites by the xenon method	729

DISCUSSION

Shchorbakov, Yu.G. Parageneses and ionic densities of elements in ore deposits	732
--	-----

NEWS

Ronov, A.B. Fifth Annual Meeting in Honor of V.I. Vernadskii	740
--	-----

Available From Scripta Technica



GEOCHEMISTRY

GEOKIMIYA

No. 8

1963

CONTENTS

A. P. Vinogradov and G. P. Vdovkin. Diamonds in stony meteorites .	743
V. V. Shcherbina. Occurrence of elements as chlorides and fluorides in nature depending on the position of the elements in the periodic table	751
Yu. P. Shergina and A. B. Kaminskaya. Isotopic composition of boron in nature.	756
R. D. Gavrilin and L. A. Pevtsova. Behavior of lead and zinc in phase and facies differentiation of magma.	764
L. F. Borisenko. Some characteristics of the distribution of gallium in ultramafic rocks.	778
M. E. Kaplan. The organic matter of stylolites.	786
S. I. Shchukin. The use of the coefficient of oxidation of iron in the classification of volcanic rocks.	791
M. M. Elinson and V. S. Polykovskii. The composition of gases in pneumatolytic-hydrothermal solutions	799
N. I. Razenkova and E. M. Poplavko. The occurrence of rhenium in the ores of the Dzheskazgan deposit.	808

NEWS

K. P. Florenskii.	816
---------------------------	-----

Available From Scripta Technica

NEWS OF HIGHER EDUCATIONAL INSTITUTIONS
MINISTRY OF HIGHER AND SECONDARY SPECIALIZED EDUCATION

USSR

RADIO ENGINEERING SERIES

Vol VI, No 6, 1963

Journal Izvestiya Vysshikh Uchebnykh Zavedeniy MVISSO
SSSR po razdelu Radiotekhnika, Vol VI, No 6, 1963,
(English version above), Nov-Dec issue, Kiev, pp 587-717.)

CONTENTS

	<u>Page</u>
Patrikeyev, I.N., and Stepanenko, I.P. Present Status and Some Prospects of Microelectronics.....	1
Afanas'yev, K. L., and Kolesov, L.N. Theoretical Investigation of the Parameters of a Flat Inductance Coil Located Between Two Ferromagnetic Non-Conducting Media.....	23
Pasichnyy, O.I., and Prozorovskiy, V. Ye. Concerning the Technology of Obtaining and Indirectly Investigating the Properties of Some Ferromagnetic Films.....	37
Prozorovskiy, V. Ye., Kolesov, L.N., Semantsov, V.I., and Afanas'yev, V.I. Analysis of Some Parameters of Inductive and Reactive Transistors.....	46
Available From JPRS 23935	(Contd)

CONTENTS (Contd)	Page
Yermolayev, Yu.P. Design and Construction of Adjustable Film Microresistances.....	58
Yermolayev, Yu.P. Calculation of Optimum Number of Film Elements on Microcircuit Plates.....	66
Yermolayev, Yu.P., and Alimova, R. A. Design and Analysis of Accuracy of Microfilm Capacitances.....	75
Gladyshev, G. I., and Yegorshin, Yu. A. Accuracy of Determination of the Magnetic Permeability and Dielectric Constant by the Method of Two Positions.....	84
Zemtsov, G. P. Investigation of Amplitude Flipflop using a Circuit with Nonlinear Capacitance of p-n Junction.....	97
Nedoluzhko, I. G. Construction of Transients Characteristics of a Junction Transistor Operating with Large Signal.....	114
Karmazinskiy, A.N. Graphic Calculation of Static Mode of Unitron Switching Circuits.....	125
Sodin, L. G. On the Dependence of the Interference Immunity of a Radio Receiver for Pulse Signals on the Bandwidths of the Radio and Video Channels.....	135
Krukovskiy-Sinevich, K. B., and Malyarevskiy, N.M. Concerning the Interference Immunity of Monopulse Ranging Systems with Frequency Modulation.....	147
Yefimov, Yu. N. Concerning the Influence of the Supply Voltage on the Threshold Characteristics of an Inductive Parametron.....	157
Voskresenskiy, D. I. Commutated Antenna with Wide-Angle Electric Scanning.....	165
Stetsenko, O. A. On the Compression of an Electromagnetic Field Between Two Planes.....	176
Stetsenko, O. A. Approximate Solution of the Wave Equation for Resonator Systems with Moving Wall.....	186

BRIEF REPORTS

Pol'ovyy, Ye. A. Some Properties of Frequency Characteristics of the Input Impedance of Passive Linear RL and RC One-Ports with Positive Parameters.....	191
--	-----

Available From JPRS 23935

(Contd)

Investiya Vysshikh Uchebnykh Zavedeniy MVisso SSSR po Razdelu Radiotekhnika
Vol VI, No 6, 1963.

CONTENTS (Contd)	<u>Page</u>
Borzenko, V. V., Bagrov, G. V., and Petrov, V. A. Alloyed Germanium Diode With Variable Capacitance.....	198
Korostelev, G. N. Limiting Currents in a System of Centrifugal-Electrostatic Focusing.....	203
DEFENSE OF DISSERTATIONS	
Dissertation for Degree of Candidate of Sciences (L'vov Polytechnic Institute).....	209
On the 60th Birthday of Professor Yu. T. Valichko.....	211

Available From JPRS 20035

COLLOID JOURNAL

of the USSR

A translation of KOLLOIDNYI ZHURNAL

a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 25, Number 3

May-June, 1963

CONTENTS

	RUSS. PAGE	PAGE
Formula for the Settling of a Suspension and Its Application in the Sedimentometric Analysis of Some Polydisperse Systems—N. Ya. Avdeev and A. A. Bagrov	229	273
Dependence of the Properties of Polymethyl Acrylate Latex Films on the Molecular Weight—I. S. Avetisyan, K. A. Pospelova, and P. I. Zubov	234	278
Theory of the Stability of Lyophobic Sols and Their Coagulation by Electrolytes. I. Applicability of the Stability Criteria of Strongly and Weakly Charged Sols to Real Colloid Systems—V. M. Barboi and Yu. M. Glazman	237	282
Methods of Regulating the Structural and Rheological Properties of Semisolid Peat—M. P. Volarovich, I. I. Lishtvan, and N. V. Churaev	240	286
Some Specific Features of the Vulcanization of Rubbers in Latex Form—T. I. Geller, D. M. Sandomirskii, Z. M. Ustinova, N. M. Fodiman, and B. A. Dogadkin	244	291
Thermal Aging of Nitrocellulose Coatings—Z. P. Grozinskaya, A. T. Sanzharovskii, and P. I. Zubov	250	299
Hydration of Portland Cement Clinker and Its Constituent Minerals in Presence of Small Amounts of Alkali-Metal Sulfates—G. D. Dibrov, T. I. Dobrasheva, and M. S. Ostrikov	254	304
Creep under Repeated Deformations (Dynamic Creep) as a Method for Investigating the Structure and Structural Changes of Vulcanizates—B. A. Dogadkin, K. G. Kuanyshev, and V. E. Gul'	259	310
Adhesion of Solid Particles to a Plane Surface. 2. Influence of Air Humidity on Adhesion—A. D. Zimon	265	317
Structural and Mechanical Properties of Bitumens of Various Origins. 2. The Role of Thin Bitumen Layers in Processes of Structure Formation in Disperse Bitumen-Mineral Materials—A. S. Kolbanovskaya, V. V. Mikhailov, and L. B. Gezentsvei	269	321
Study of the Electrophoretic Mobility of Colloidal Particles by the Moving Boundary Method—Arvind Kumar and Abani K. Bhattacharya	275	329
Investigation of the Electric Charges Arising during Deformation of Polymers—G. A. Lushcheikin, V. E. Gul', and B. A. Dogadkin	279	334
Influence of the Sodium Salts of Certain Organic Acids on the Colloid-Chemical Properties of Aqueous Clay Dispersions—A. K. Miskarli and A. M. Balramov	285	341
Available From Consultants Bureau		(Continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Calculation of the Strength of the Deposit (Filter Cake) Formed in a Porous Medium —B. A. Mitin	290	348
Investigation of the Stability and Coagulation of Synthetic Latices. 5. Influence of Polymeric Additives on the Kinetics of Slow Coagulation of a Dilute Latex —R. E. Neiman and O. G. Kiseleva	295	354
Mechanism of Formation of Internal Stress during Hardening of Cements—A. F. Polak.	299	359
Thermodynamics of the Selectivity of Sorption of Calcium on Carboxylic Cation Exchangers—G. V. Samsonov and B. V. Moskvichev.	305	366
Influence of the Degree of Dispersion on the Ultimate Strength of Hardening Structures in Relation to Dissolution of the Original Cement—E. A. Shabanova-Amelina, E. E. Segalova, and P. A. Rebinder.	309	370
Electrostatic Potential of Cylindrical Macrolons in Electrolyte Solutions—Yu. I. Alamov.	313	375
LETTERS TO THE EDITOR		
Abrupt Change of the Electrification Potential when the Flow of Plastic Disperse Systems is Stopped—Yu. F. Deinsga and G. V. Vinogradov.	317	379
Concerning F. Bueche's Equation for the Tensile Strength of Rubbers—L. I. Gol'berg	318	381
Available From Consultants Bureau		

Soviet Physics CRYSTALLOGRAPHY

A Translation of the Journal "Kristallografiya"

(Russian Original Vol. 8, No. 5, pp. 691-816, September-October, 1963)

Vol. 8, No. 5, pp. 553-658

March-April, 1964

CONTENTS

	PAGE	RUSS. PAGE
Similarity Symmetric and Antisymmetric Groups. <u>É. I. Galyarskii and A. M. Zamorzaev</u> . . (T)	553	691
Space Symmetry of Electric and Magnetic Dipole Structures. <u>V. N. Lyubimov</u> (T)	559	699
Analysis of the Laue Interference Function. <u>Yu. A. Bagaryatskii</u> (T)	565	706
Theory of the Two-Crystal Spectrometer. <u>D. I. Lainer, R. L. Petrusevich,</u> <u>and S. Sh. Shil'shtein</u> (T)	568	711
Effects of Shape on the X-Ray Scattering of Single Crystals of Supersaturated Solid Solutions of (K, Na) Cl During Decomposition. <u>R. A. Zvinchuk and A. M. Elistratov</u> . (E/T)	571	715
Electrostriction in Triglycine Sulfate. <u>A. A. Fotchenkov, M. P. Zaitseva,</u> <u>and L. I. Zherebtsova</u> (E/T)	579	724
Polarization of Ferroelectrics Under Conditions of Short-Time Electric Pulses. <u>K. N. Karmen</u> (E/T)	583	729
Internal Friction as a Function of Temperature for Rochelle Salt. <u>A. M. Shirokov</u> <u>and L. A. Shuvalov</u> (E)	586	733
The Elastic Properties of Pyroxenes. <u>K. S. Aleksandrov, T. V. Ryzhova, and B. P. Bellikov</u> . (E)	589	738
The Relationship Between Substructure and Concentration Nonuniformity in Alloys. <u>V. G. Lyuttsau and B. M. Rovinskii</u> (E)	592	742
On Optical Coherence Between Mosaic Blocks During X-Ray Measurements. <u>I. A. Zazovskaya and O. N. Shvrlin</u> (E)	597	747
Study of the Kinetics of the Growth of Cracks in Bismuth Single Crystals. <u>V. M. Finkel',</u> <u>I. A. Kutkin, A. M. Savel'ev, V. A. Zraichenko, L. B. Zuev, and V. K. Kositsina</u> . . (E)	601	752
Stepped Surface Relief of β -Methyl Naphthalene Crystals Grown From Solution. <u>G. R. Bartini, E. D. Dukova, I. P. Korshunov, and A. A. Chernov</u> (E)	605	758
Statistical Description of the Stepped Surface Relief of β -Methyl Naphthalene Crystals. <u>E. D. Dukova and A. A. Chernov</u> (T/E)	611	765
Sector Distribution of Luminescence Centers in Synthetic Quartz. <u>S. V. Starodubtsev,</u> <u>Sh. Vakhidov, and L. I. Tsinober</u> (E)	615	770
Crystal Structure of Thin Films of Cadmium Sulfide as Affected by Decomposition Conditions. <u>K. V. Shalimova, A. F. Andrushko, V. A. Dmitriev, and L. P. Pavlov</u> . . (E)	618	774
Method of Determining the Radial Temperature Gradients on the Crystallization Front of Ingots Grown by the Czochralski Method. <u>B. M. Turovskii</u> (T)	621	778

Available From Amer Inst of Phys
Sov Phys - Crystal
Vol VIII, No 5

(continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
BRIEF COMMUNICATIONS		
Groups of Layer Symmetry and Antisymmetry of Different Types. <u>A. F. Pallistrant</u>	(T) 824	783
Determination of the Coherent-Scattering Cross Section for Neutrons on Gallium. <u>Yu. Ya. Konakhovich and V. A. Somenkov</u>	(E) 826	785
Crystal Structures of Compounds of Rare-Earth Metals With Beryllium ($REBe_{13}$). <u>E. I. Gladyshevskii, P. I. Kripyakevich, and D. P. Frankevich</u>	(E) 829	788
Crystal Structure of α - $C_{10}H_8HgI$. <u>V. I. Pakhomov</u>	(E) 830	789
Preparation and Examination of Compounds of $A_2B^{II}B^{III}O_6$ Type. <u>V. S. Filip'ev</u> , <u>M. P. Kupriyanov, and E. G. Pesenko</u>	(E) 830	790
Symmetry of the Piezoelectric Parameters of Normal and Compressed Woods. <u>V. A. Bazhenov and A. V. Kytmanov</u>	(E) 831	791
Revealing Dislocations on Cleavage Planes of Cuprous Oxide. <u>A. I. Andrieveskii</u> and <u>G. F. Mocharnyuk</u>	(E) 833	793
Mechanism of Growth of Crystals of Salol From a Melt. <u>D. E. Ovsienko and G. A. Alfintsev</u> Growth of Crystalline Ingots of $BaTiO_3$ from the Melt in an Oxygen Atmosphere. <u>E. V. Bursian and N. P. Sminova</u>	(E) 835	796
Crystallization of Wulfenite ($PbMoO_4$) Under Hydrothermal Conditions. <u>L. N. Dem'yanets</u> , <u>L. S. Garashina, and B. N. Litvin</u>	(E) 839	800
Cotransfer of Al_2O_3 and Cr_2O_3 Under Hydrothermal Conditions. <u>V. A. Shorygin</u>	(E) 842	803
Growth of Single Crystals of Cobalt Oxide by the Verneuil Method. <u>N. A. Velikhova</u>	(E) 843	804
Relaxation of Residual Stresses in the Process of Annealing Single Crystals of Alkali Halide Compounds. <u>B. A. Reznikov</u>	(E) 846	808
DISCUSSIONS		
Refinement of Some of the Formulas and Presentations of the Theory Which Lies at the Basis of the Analysis of Fourier Profiles of X-Ray Interferences. <u>V. V. Kukol'</u>	(T) 850	812
A Simplified Method for Determining the Position of the Maximum of the Real Profile of a Broadened X-Ray Diffraction Line From a Crystal. <u>V. V. Kukol'</u>	(T) 851	813
CHRONICLE		
Conference on Thermodynamics and Kinetics of Phase Transformations. <u>V. M. Varikash</u> <u>Georgii Mikhailovich Popov</u>	(R) 853	816
Available From Amer Inst of Phys Sov Phys - Crystal Vol VIII, No 5	(R) 853	816

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published October, 1961

No. 1, pp. 1-52

January, 1961

CONTENTS

	PAGE	RUSS. PAGE
A Powerful Rise in Ferrous Metallurgy. <u>S. M. Filippov</u>	1	1
THE BLAST-FURNACE INDUSTRY		
Fluxed Sinter with Increased Magnesia Content. <u>D. G. Khokhlov</u>	6	4
Reducing the Sulfur Content of Iron in the Blast-Furnace Smelting Process. <u>Kanamori Kuro</u>	8	6
The Operation of "Floating" Coolers in the Stack of a Large Blast Furnace. <u>R. D. Kamenev</u> and <u>M. A. Sukonnik</u>	10	7
At the YuGOK Sintering Plants. <u>A. V. Sheleketin</u> and <u>A. M. Shevchenko</u>	13	10
New Books	16	12
THE STEELMAKING INDUSTRY		
Preliminary Deoxidation of Tube Steels. <u>V. K. Laptev</u>	17	13
The Use of Steam for Boosting Combustion in Open-Hearth Furnaces. <u>A. Bikhler</u>	19	15
Flushing the Checkerwork of Large-Capacity Open-Hearth Furnaces. <u>M. G. Kozhanov</u> , <u>A. Ya. Raskevich</u> , <u>A. I. Kazakov</u> , and <u>A. M. Kulakov</u>	21	17
Basic Refractory Wastes - Valuable Raw Material. <u>M. N. Kaibicheva</u> , <u>N. I. Fadeeva</u> , <u>N. A. Tulin</u> and <u>M. I. Shatalov</u>	23	18
Asbestos Curtains on Charging Machines (Industrial Safety). <u>G. Ezenkin</u>	25	20
A Useful and Necessary Book for Open-Hearth Workers (New Books). <u>A. M. Lekhtik</u>	25	20
ROLLED AND TUBULAR PRODUCTS		
Ground Stainless Steel Plates. <u>M. I. Yudin</u> and <u>N. A. Troshchenkov</u>	27	21
An Automatic Gage for Measuring the Width of Rolled Products. <u>E. Yu. Gutnikov</u> and <u>N. N. Chuzo</u>	30	23
Lubrication in Tube Rolling. <u>V. Ya. Osadchii</u> and <u>R. M. Golubchik</u>	32	26
Pickling Bars without the Use of Inserts. <u>V. F. Isupov</u>	34	27
Improvements in the Equipment of Rolling Shops. <u>V. P. Emel'yanov</u>	34	28
SCHOOL OF ADVANCED EXPERIMENTS		
Optimum Rolling-Schedule for Blooming Mills. Report to Interplant Study Group on Cogging Mills. <u>L. V. Andreyuk</u>	38	31
The Operation of Large Capacity Blast Furnaces. <u>E. V. Kochinev</u>	42	34
New Books	43	34
Available From Acta Metallurgica		(Contd.)

CONTENTS (continued)

	PAGE	RUSS. PAGE
INTERNATIONAL RELATIONS		
With the Luxembourg Metallurgists, <u>I. S. Burdin</u>	43	35
NEWSPAPER EXTRACTS	47	37
METALLURGY ABROAD		
Some Problems in the Technology of the Basic Converter Process. <u>M. I. Yampol'skii and E. V. Ivanov</u>	48	38
NEW BOOKS		
Rolled Steel Production. <u>P. I. Polukhin, N. M. Fedosov, A. A. Korolev, and Yu. M. Matveev</u> .	49	39
Roughing Mills. <u>N. D. Lomakin</u>	50	39
A Valuable Book for Soviet Economists	50	39
Available From Acta Metallurgica		

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published August, 1962

No. 2, pp. 53-100

February, 1962

CONTENTS

	PAGE	RUSS. PAGE
Results and Perspectives	53	1
Five Metallurgical Bases for Communism. <u>S. M. Filippov</u>	54	2
An Outstanding Worker in Soviet Metallurgy	58	5
THE BLAST FURNACE INDUSTRY		
Automatic Regulation of Blast Among the Tuyeres of the Blast Furnace. <u>Ts. P. Krivoi,</u> <u>Yu. Ya. Treister, and E. M. Sherman.</u>	59	6
A Charging System with Two Large Bells. <u>A. N. Pokhvisnev, V. P. Tarasov, and</u> <u>F. P. Tarasov.</u>	62	9
Quality of Erection of Sintering Machines and Means of Improving It. <u>Yu. V. Makarov</u>	65	12
Repair of Large Blast Furnace Bells. <u>R. F. Rybochkin.</u>	67	14
NEW BOOKS		
Mechanical Equipment of Sinter Plants. <u>I. I. Neshcheret.</u>	69	16
THE STEELMAKING INDUSTRY		
Method of Manufacturing Hearths for the DSP-80 Electric Furnaces. <u>B. V. Barvinski.</u>	71	17
Use of Nickel-Containing Grinding Dust in Open-Hearth Furnaces. <u>N. V. Keis,</u> <u>O. Ya. Vainshtein, V. A. Khryukina, L. A. Kamkina, and E. I. Korablev</u>	76	20
Port End for Heating an Open-Hearth Furnace with Natural Gas. <u>I. I. Kobeza,</u> <u>E. I. Bembinck, and V. M. Smirnov.</u>	78	22
The Use of Titanium Sponge in the Production of Stainless Steels. <u>N. S. Bachugova</u>	81	25
High-Calorie Fuel for Open-Hearth Furnaces. <u>I. B. Polyak.</u>	82	26
ON LABOR SAFETY		
Lubricating Open-Hearth Molds with Bitumen No. 4-5. <u>G. Medvednikov</u>	85	27
ROLLED AND TUBULAR PRODUCTS		
The Warm Drawing of Steels and Alloys Difficult to Deform. From the Proceedings of a Coordinating Conference. <u>D. A. Teimer, V. V. Nagovitsin, and V. M. Afonina</u>	86	28
A New Technique for Preparing Bright Bar from High Speed Steel R18. <u>Ya. Kh. Sartan.</u>	88	31
As Installation for the Warm Drawing of Steels Difficult to Deform. <u>G. A. Khasin,</u> <u>V. G. Chikina, A. I. Bogdashkin, G. G. Rannev, G. L. Bruns, and Yu. I. Vashchenko.</u>	91	33
A Slide Rule for Determining the Weight and Length of Tube and Continuous Sections. <u>Yu. V. Tishinski.</u>	93	35

Available From Acta Metallurgica

(Contd)

METALLURG
No 2, 1962.

CONTENTS (continued)

	PAGE	RUSS. PAGE
The All-World Forum of Proletariat Solidarity, <u>Ya. Brodski</u> (Not Translated)	95	36
RATIONALIZATION AND INVENTION		
With the Metal Workers Around Moscow. <u>B. Chusov</u>	96	38
Available From Acta Metallurgica		

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published August, 1962

No. 3, pp. 101-150

March, 1962

CONTENTS

	PAGE	RUSS. PAGE
New Techniques at the Metallurgical Plants of the Russian Soviet Federated Socialist Republic in 1962. <u>N. I. Sheftel'</u>	101	1
THE BLAST-FURNACE INDUSTRY		
On the Construction and Durability of the Hearth and Well of the Blast Furnace.		
<u>E. V. Kochinev</u>	104	4
Improvement of the Drive of the Sintering Machine. <u>D. P. Pritykin</u>	108	8
Obtaining Clean Ingot Surfaces on the Casting Machine. <u>V. F. Pashinskii</u>	110	10
An Electric Safeguard Against Overfilling the Hopper for the Ore Charge. <u>V. B.</u>	111	10
Mechanization of the Removal of Ferromanganese Ingots. <u>M. M. Gladkii</u>	112	11
The Organization of Current Repairs of Blast Furnaces without Burning Gas at the Mouth. <u>V. E.</u>	113	11
Change of the Installation and Reinforcement of the Grates on the Agglomerate Bins. <u>V. E.</u>	114	12
A Method of Repairing the Liners of Blast-Furnace Tuyeres. <u>V. E.</u>	115	12
THE STEELMAKING INDUSTRY		
The Use of Ore and Scrap in Converter Production. <u>D. B. Martinkovskii</u>	116	13
The Conversion of Limestone Cupolas to Firing By Natural Gas. <u>L. V. Sudoplatov</u> , <u>B. V. Yasyunas</u> , and <u>G. Ya. Berkovich</u>	119	16
Ramming the Walls of An Open-Hearth Furnace With Refractory Pastes. <u>A. Lekhtuk</u>	122	19
The Latest Position with Regard to Open-Hearth Furnace Overhauls. <u>V. I. Zhivago</u>	125	21
ROLLED AND TUBULAR PRODUCTS		
The Rolling of R-24 Rails from Semikilled Steel. <u>E. A. Demidovich</u>	127	23
New Groove Design for an Argon-Arc Welding Tube Mill. <u>E. M. Krichevskii</u> and <u>V. Ya. Gol'berg</u>	129	26
The Efficiency in Use of Steel, Weld-Deposited and Cast-Iron Rolls in the Finishing Stand of a 2800 mm Mill. <u>Yu. I. Krivososov</u>	132	27
Liquid Friction Vertical Bearings. <u>P. I. Tetel'baum</u> and <u>A. A. Kovtushenko</u>	135	31
SMALL-COMPONENT PRODUCTION		
Etching Baths With a Steel Shell. <u>B. Nikonov</u> and <u>V. Elistratov</u>	137	32
Ferrous Metallurgy of Uzbek in the Seven-Year Plan. <u>A. Lomov</u>	138	33
Available From Acta Metallurgica		

(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
FOR LABOR SAFETY		
An Analysis of Industrial Traumatism in Rolling Shops, <u>M. M. Borkel</u>	141	35
INTERNATIONAL RELATIONS		
A Visit with Our Bulgarian Friends, <u>P. Fomin</u>	144	37
CHRONICLE		
The Second All-Union Congress of the Scientific-Technical Society of Ferrous Metallurgy. <u>D. A. Smolyarenko</u>	147	39
Available From Acta Metallurgica		

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published September, 1962

No. 4, pp. 151-196

April, 1962

CONTENTS

	PAGE	RUSS. PAGE
The 30th Anniversary of the Siberian Giant. <u>B. N. Zhernbin</u>	151	1
Competition Between Three Giants. <u>N. Milovantsev</u>	154	4
Production Conference at the Kuznetsk Metallurgical Combine. <u>A. N. Glazov</u> and <u>A. D. Kolyvanov</u>	157	5
Three Years of the Seven Year Plan. <u>M. D. Karachentsev</u> and <u>A. F. Egorov</u>	159	7
Device for Distribution of Blast Among the Tuyeres of a Blast Furnace. <u>V. V. Burtsev</u> and <u>Yu. O. Raev</u>	161	9
Smelting of Foundry Pig Iron. <u>A. F. Egorov</u>	164	11
The Automatic Charging of Furnaces. <u>V. G. Gur'yanov</u>	166	13
Kuznetsk Steel. <u>L. S. Klimasenkov</u>	168	15
Masters of High-Speed Repairs. <u>G. A. Vinogradov</u> and <u>M. I. Esin</u>	172	17
Special Features of the Thermal Regime and Heating of Open-Hearth Furnaces. <u>V. N. Kazantsev</u>	174	20
Experience in Pouring Steel from Double-Stopper Ladles with Remote Control of the Stoppers. <u>L. S. Klimasenkov</u> , <u>L. A. Sokolov</u> , and <u>E. Ya. Bomev</u>	176	21
The Blooming Mill at KMC. <u>P. G. Popov</u> and <u>N. I. Zakharenko</u>	179	24
Ways of Saving Metal. <u>L. Ya. Kravchenko</u> and <u>V. K. Kobzyev</u>	181	26
Changing the Groove Design of the First Stand in 360 mm Mill. <u>N. I. Peskov</u> , <u>V. A. Osokin</u> , and <u>A. M. Korchemnyi</u>	186	29
The Central Works Laboratory. <u>P. S. Plekhanov</u>	189	32
Forward and Only Forward! <u>M. M. Privalov</u>	190	33
Looking Ahead. <u>A. Shtepa</u>	194	35
For the Common Good. <u>A. Krasil'nikov</u>	195	36

Available From Acta Metallurgica

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published November, 1962

Nos. 5-6, pp. 197-292

May-June, 1962

CONTENTS

	PAGE	RUSS. PAGE
NUMBER 5, 1962		
Converter Steel - A Rich Field, <u>A. Aleksandrov</u>	197	Cover
The Sixth Congress of the Metallurgical Industry Trade Union, <u>V. A. Podzerko</u>	199	1
The 75th Anniversary of the Petrovskii Plant, <u>I. I. Korobov and V. I. Zhigulin</u>	204	4
THE BLAST-FURNACE INDUSTRY		
Is Constant Basicity of the Agglomerate Necessary? <u>Yu. T. Voloshin</u>	209	8
Errors in the Regulation of Gas Flow and the Distribution of Materials at the Mouth, <u>V. V. Poltavets</u>	210	9
The Dimensions of the Hearth and the Number and Parameters of the Air Tuyeres, <u>M. Ya. Ostroukhov</u>	213	12
The Granulation of Iron, <u>Yu. A. Orlov</u>	215	13
THE STEELMAKING INDUSTRY		
Deoxidation of 25L and 35 GL Steels by Ferromanganese in the Ladle, <u>R. A. Shutov</u>	217	15
The Packed Floor of the Open-Hearth Furnace, <u>V. P. Filatov, P. P. Semenenko,</u> <u>G. I. Baryshnikov, and V. I. Gudov</u>	218	16
Rational Working Diagram for the Reversing Devices of Open-Hearth Furnaces Fired with Natural Gas, <u>A. L. Turubiner and A. I. Savin</u>	221	18
Pouring Steel through Paraffin-Waxed Unburnt Magnesite Nozzles, <u>N. G. Terziyan and</u> <u>A. M. Marchenko</u>	223	20
Hydraulic Ingot-Mold Descaler, <u>A. N. Abramov</u>	224	21
Increasing the Life of the Back Walls of Open-Hearth Furnaces, <u>A. Shabalin</u>	225	21
ROLLED AND TUBULAR PRODUCTS		
Production of Economic Rolled Profiles at KMK, <u>I. I. Kuchko and N. P. Kudryavtsev</u>	226	22
The Effect of Reheating on the Scabbing of Low-Carbon Steel Killed with Aluminum, <u>V. Fridrikhsen and A. Zhdanov</u>	231	26
Cutting Rolls of High Hardness, <u>N. I. Khmelkov and M. M. Shapiro</u>	232	27
On Methods of Sealing Rotating Shafts, <u>L. N. Gorodetskii</u>	234	28
Increasing the Life of Rolling Mill Spindles, <u>S. I. Beskaravainii</u>	236	31
NEW BOOKS		
Metallurgy of Ferrous Metals, <u>D. D. Burdakov and Z. G. Tsukernik</u>	238	39
Handbook for the Steelmaker, <u>M. I. Panfilov</u>	239	39
Available From Acta Metallurgica		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
NUMBER 6, 1962		
The Metallurgists of the Lipetskaya Magnitka	240	Cover
Toward a High Level of Mechanization and Automation in Ferrous Metallurgy. <u>V. A. Gerasimenko</u>	243	1
THE BLAST FURNACE INDUSTRY		
New Means for the Complex Automation of the Blast-Furnace Industry. <u>Yu. Ya. Treister</u>	246	3
Reconstruction of the Limestone Crushing Department of the Sintering Mill. <u>D. P. Pritykin</u>	249	6
Device for Supervising the Operation of the Large Bell of a Blast Furnace. <u>V. Ya. Kozhukh,</u> <u>G. P. Kaminskii, and Yu. Z. Ratner</u>	253	9
Improvement of the Equipment in the Blast-Furnace Unit of the Kuznets Metallurgical Combine (KMC). <u>I. N. Vikhrov</u>	255	11
Some Questions on the Design and Durability of the Hearth and the Well of Blast-Furnaces. <u>I. M. Galemin</u>	258	14
NEW BOOKS		
The Blast-Furnace Industry. <u>A. A. Vagin</u>	261	15
The Service of the Charging Apparatus of the Blast-Furnace. <u>M. Ya. Ostroukhov and</u> <u>I. G. Timofeev</u>	261	15
Means of Increasing the Output of Sintering Machines. <u>D. A. Kissin and K. A. Bovkun</u>	261	15
THE STEELMAKING INDUSTRY		
Automation of the Supervision and Control of the Thermal Conditions of the Electric Arc Furnace. <u>V. M. Vinogradov, Yu. E. Efroimovich, A. V. Kablukovskii, and V. I. Simonov</u> ..	263	16
Remote Control of Ladle Stoppers. <u>A. I. Sapko, L. G. Sviridenko, V. P. Dobrov, D. F. Gladkii,</u> <u>I. S. Buzunov, and G. V. Pichak</u>	266	18
All-Welded Steel Ladles. <u>V. A. Pozdzhennikov</u>	269	22
A Device for the Oxygen-Powder Burning of the Steel-Tapping Hole. <u>N. S. Bugrov and</u> <u>V. A. Kupriyanov</u>	271	23
A Bulldozer for Open-Hearth Repairs. <u>A. Skutin</u>	273	25
The Automatic Measurement of the Mixer Jacket Temperature. <u>Ya. S. Pinus, V. S. Gritskov,</u> <u>and A. P. Bezrukov</u>	274	26
ROLLED AND TUBULAR PRODUCTS		
Modernization of the Roughing Stand of a 2150-mm Sheet Mill. <u>A. F. Kuznetsov</u>	275	27
Mechanization and Automation of the Dressing of Billets. <u>E. I. Dorokhin</u>	277	29
Mechanization of the Removal of Slabs from Continuous Furnaces. <u>G. F. Isupov, V. P. Sud'ya,</u> <u>and P. I. Denisov</u>	280	32
The Surface Dressing of Rolled Products with Shot. <u>M. S. Karpyshev</u>	282	34
Automatic Pincers for Gripping and Transporting Loads	284	35
A Device for the Automatic Lubrication of Thrust Bearings. <u>A. F. Krisanov</u>	285	35
A Device for Knurling Rolling Mill Rolls. <u>I. Ya. Usik</u>	286	36
Public Structures Office of the New Tube (Novotrubnyi) Factory. <u>M. A. Freiberg</u>	287	37
Available From Acta Metallurgica		

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published March, 1963

Nos. 7-8, pp. 293-394

July-August, 1962

CONTENTS

	PAGE	RUSS. PAGE
NUMBER 7, 1962		
Let us Fulfill the Decrees of the 22nd Congress of the Communist Party of the Soviet Union. . . .	293	2
On the Way to Technical Progress. <u>I. I. Bormatskii and N. A. Tereshchenko</u>	299	7
THE BLAST-FURNACE INDUSTRY		
Experience in the Operation of a Blast Furnace on Evaporative Cooling. <u>E. V. Slinchenko,</u> <u>N. P. Yarmolinskii, M. S. Kudoyarov and P. V. Anan'ev</u>	303	9
Reducing the Moisture Content of Tapping Hole Pastes for Blast Furnaces. <u>L. M. Orechkin</u> <u>and Yu. V. Materikin</u>	306	12
Charging Devices for a 1719 m ³ Blast Furnace. <u>N. D. Kirichenko</u>	309	14
THE STEELMAKING INDUSTRY		
The Technology of Melting and Pouring Cold-Rolled Transformer Steel. <u>L. N. Kononov</u> <u>and E. V. Pashchenko</u>	313	17
The Production of Semikilled St. 5ps Steel for Periodic Profiles. <u>I. A. Zaitsev, A. A. Kazakov,</u> <u>E. D. Akol'tsev, and V. V. Uvarov</u>	316	20
Casting 260 Tons of Steel in a Continuous Casting Plant Without Interruption of the Stream. <u>F. N. Grigor'ev, I. I. Druzhinin, and V. G. Osipov</u>	318	22
In the Steelmaking Shops of the Country.	320	23
NEW BOOKS		
Steel Production by the Method of Electro-Slag Remelting. <u>S. A. Leibenzon and A. F. Tregubenko</u> . . .	323	24
ROLLED AND TUBULAR PRODUCTS		
Experience in Mastering the Magnitogorsk Slabbing Mill. <u>L. V. Andreyuk</u>	324	25
A New Profile for the Ploughshare Periodic Strip for Agriculture. <u>N. Peskov, A. Burdin,</u> <u>and A. Korchemnyi</u>	329	29
Modernization of Mechanical and Electrical Equipment. <u>I. Ya. Usik and R. T. Kharitonov</u>	331	31
Automatic Facing of the Necks of Cast Iron Rolls. <u>N. Lafulin, G. Aripov, and N. Fain</u>	333	32
EXPERIENCE OF INNOVATORS		
We Steer the Course to Communism. <u>M. A. Troshev</u>	334	33
Young Cadres in Command. <u>D. Sprikut</u>	336	35
Furnace Attendant of the Seven-Year Plan. <u>I. Chirkov</u>	339	37
The Innovators of a Particular Mill. <u>S. Znatkov</u>	341	38
The First Seminar for Furnace Thermotechnics. <u>S. Pevzner</u>	343	40
NUMBER 8, 1962		
Errors in the Regulation of Gas Flow and the Distribution of Materials at the Mouth. <u>A. B. Shur</u>	344	2
Available From Acta Metallurgica		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Mechanization of the Process of Opening the Iron Tap Hole, <u>G. A. Panev</u> , and <u>M. A. Zalevsky</u>	349	5
A Unit for Cooling and Loading Iron into Cars, <u>D. M. Rozhkov</u> and <u>A. V. Anurin</u>	351	7
Complete Utilization of the Iron Ore of the Urals, <u>I. S. Shapito</u>	353	9
THE STEELMAKING INDUSTRY		
The Shape and Size of the Hearth of an Electric-Arc Steelmaking Furnace, its Lining, and Maintenance of the Latter, <u>V. A. Kamardin</u>	356	11
Burning in New Bottoms of Open-Hearth Furnaces, <u>V. P. Filatov</u> , <u>P. P. Semenenko</u> , <u>G. I. Baryshnikov</u> and <u>V. I. Gudov</u>	359	14
The Use of the Unburned Metal-Encased Chrome Magnesite Bricks in Electric Furnace Walls, <u>M. N. Kaibicheva</u> , <u>N. I. Mar'evich</u> , <u>N. A. Tulin</u> , <u>I. V. Smakotin</u> , <u>P. A. Lande</u> , and <u>P. Ya. Terekhina</u>	362	16
Rapid Method of Laying the Regenerator Checkers of Open-Hearth Furnaces, <u>A. Lekhtik</u>	364	18
ROLLED AND TUBULAR PRODUCTS		
The Production and Use of Economic Hot-Rolled Sections, <u>B. G. Fastovskii</u> and <u>A. N. Fundé</u>	365	19
Evolved Finishing Pass for Rolling Channel No. 10, <u>B. M. Ilyukovich</u> and <u>A. N. Skorokhodov</u>	370	23
Mechanization of Flame Scarfing of Blooms, <u>E. Kh. Shamovskii</u> , <u>A. D. Zykov</u> , <u>Z. K. Kaftanova</u> , <u>L. Ya. Kravchenko</u> , <u>N. P. Frolov</u> , <u>E. A. Zhuravkin</u> , and <u>V. L. Gorbatyuk</u>	371	24
Determination of Metal Economy (With Delivery of Rolled Products Based on Theoretical Weight), <u>N. P. Skryabin</u> , <u>B. V. Merekin</u> , and <u>V. D. Korshchikov</u>	375	27
More Tubes for the National Economy	377	29
FOR LABOR SAFETY		
Experience in Improving Working Conditions in Open-Hearth Furnaces, <u>M. E. Zhilo</u>	380	31
EXPERIENCE OF INNOVATORS		
Working Experience on Cold-Rolling Tube Mills, <u>P. N. Minin</u>	385	34
A Glorious Six Decades	386	36
METALLURGY ABROAD		
The Use of Oxygen in American Open-Hearth Production, <u>N. I. Perlov</u> and <u>V. A. Vladimirov</u>	388	37
CHRONICLE		
Achieving a High Level of Automation	392	39
Available From Acta Metallurgica		

SOVIET RADIOCHEMISTRY

A translation of RADIOKHIMIYA-

a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 4, Number 4

July-August, 1962

CONTENTS

	P A G E	
	ENG.	RUSS.
Study of Coprecipitation of Cerium with K_2SO_4 Crystals. I. State of Cerium in K_2SO_4 Solutions. - S. G. Babayan, I. V. Melikhov, and M. S. Merkulova	337	381
Mutual Solubility in the System Uranyl Nitrate - Water - Isopropyl Ether. - V. M. Vdovenko, I. G. Suglobova, and M. Mezel.	342	388
Adsorption of Radioactive Isotopes on Nonion-Exchange Polymeric Adsorbents, III. Adsorption of Cesium, Thallium, Silver, and Strontium on Polytetrafluoroethylene and Polyethylene. - I. E. Starik, V. N. Shchebetkovskii, and I. A. Skul'skii.	347	393
Effect of Halogen-Containing Additives on the Reactions of Tritium Recoil Atoms with Benzene. - V. V. Pozdeev, An. N. Nesmeyanov, and B. G. Dzantiev	351	398
Effect of the Aggregate State on the Reactions of Tritium Recoil Atoms with Hydrocarbons. - V. V. Pozdeev, An. N. Nesmeyanov, and B. G. Dzantiev	356	404
Adsorption of Various Substances on Radioactive Samples of Barium Sulfate. L. D. Belyakova, V. V. Gromov, A. V. Kiselev, and Vikt. I. Spitsyn	362	410
Investigations of Complex Formation of Protactinium with Mono-, Di-, and Polycarboxylic Acids. I. Complex Formation and Protactinium with Lactic Acid. - I. Găléseanu and A. V. Laptukii.	371	421
Determination of the Composition and Stability Constants of Complex Compounds by Electromigration. I. Determination of the Composition and Stability Constants of Oxalate Complexes of Zirconium. - V. P. Shvedov and E. I. Maslov	376	427
Determination of Ion Exchange Constants by Elution Radiochromatography. - V. V. Rachinskii and S. M. Rustamov	382	434
Direct and Continuous Observation of Salt Transfer in Liquid - Liquid Extraction. - M. F. Pushlenkov and V. S. Fedorov	389	443
Equivalence of the Uranium Atoms in Urano-uranic Oxide. - N. I. Blinova and Yu. M. Tolmachev.	392	447
Separation of Radioactive Isotopes of Rare Earth Elements on a Mercury Cathode. I. Separation of Y, Yb, and Lu. - V. P. Shvedov and Fu I-bel	396	451
Separation of Radioactive Isotopes of Rare Earth Elements on a Mercury Cathode. II. Separation of Ce and Pm from Lu and of Eu from Ce and La. - V. P. Shvedov and Fu I-bel.	401	457
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Chemical Action of Br ⁸² Recoil Atoms Obtained by a (n,γ)-Reaction on Haloacetic Acids. - An. N. Nesmeyanov, É. S. Filatov, and I. G. Gusakovskaya	405	462
Radiochemical Study of Deep Spallation and Fission of Tantalum by 680-MeV Protons. - V. I. Baranovskii, A. N. Murin, and B. K. Preobrazhenskii.	412	470
Measurement of β-Radiation Sources by Chemical Dosimetry Methods. - G. A. Mikhal'chenko and I. Kleinmann.	420	479
Determination of Long-Lived β-Emitters in Atmospheric Fall-Out. - V. I. Baranov and V. D. Vilenskii	426	486
Fall-Out of Pb ²¹⁰ from the Atmosphere. - V. I. Baranov and V. D. Vilenskii	431	493
BRIEF COMMUNICATIONS		
Separation of Nuclear Isomers of Zinc. - V. D. Nefedov, E. N. Sinotova, and Sun' Shu-chahen' Sorption of Radioactive Cobalt by Peats. - V. F. Oreshko, A. I. Berdnikov, and V. V. Prshbyl'skii	435	497
Effect of Medium on Oxidation of Uranium (IV) by Chlorate. - L. A. Fedorova and E. A. Kanevskii.	437	499
Reaction of Pentavalent Neptunium with the Reagent Arsenazo III. - É. G. Chudinov and G. N. Yakovlev	440	502
Determination of Microamounts of Neptunium with the Reagent Arsenazo III. - É. G. Chudinov and G. N. Yakovlev.	443	505
Equivalence of the Bonds in PtCl ₄ . - V. P. Kazakov and B. I. Peshchevitskii	444	506
Study of Exchange Between Radioactive and Stable Niobium in Citrate Complexes by Isotope Dilution. - I. P. Alimarin, G. N. Viliimovich, and Yang Yu-sen'.	447	509
Exchange of Ions of Some Alkaline Earth Metals on Carboxyl, Phosphate, and Sulfonate Resins. - B. P. Nikol'skii, N. B. Vysokostrovskaya, and A. M. Trofimov	449	510
Peculiarities in the Behavior of Antimony in Anion Exchange. Szilard-Chalmers Effect on an Ion Exchanger. - L. N. Moskvina.	450	512
Possibility of Using a Mixture of the Isotopes Sr ⁸⁸ and Sr ⁹⁰ + Y ⁹⁰ in Direct Radiometric Measurements. - Yu. V. Egorov, V. M. Nikolaev, E. I. Krylov, and E. V. Tkachenko.	452	514
Available From Consultants Bureau	455	516

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated January, 1961)

Vol. XVIII, No. 1

August, 1961

CONTENTS

	PAGE	RUSS. PAGE
More Glass and Ceramic Products for Facing Buildings	1	1
Facing Materials from Glass. <u>S. M. Brekhovskikh and B. I. Borisov</u>	4	5
Glass Tile—Finishing Material for Industrial Buildings. <u>O. V. Koretko</u>	8	8
Alternate Melting of Colored and Colorless Glass without Stopping the Tank Furnace. <u>M. I. Koz'min and A. G. Minakov.</u>	11	11
Insulating Electric-Conducting Films on Glasses. <u>O. K. Botvinkin, O. V. Vorob'eva, and V. A. Portnova</u>	15	16
Strains Arising during the Leaching of Sodium-Borosilicate Glasses. <u>K. T. Bondarev,</u>	18	19
Conveyer Kiln for Decorating Firing of Porcelain. <u>Z. P. Ser' and V. A. Ivanov.</u>	22	23
Improving Kilns Used for Firing Domestic Porcelain. <u>N. P. Zgonnik</u>	26	27
The Production of Ceramic Floor Tiles from Local Raw Materials in Latvia. <u>K. K. Lukstyn'sh.</u>	29	29
The Effect of Densification Deformation on the Strength of the Structure and Electric Conductivity of Clay Bodies. <u>I. I. Morachevskii and V. B. Chernogorenko</u>	33	33
LETTERS TO THE EDITOR		
Increasing the Output of Calibrated Window Glass. <u>M. Sirochkin</u>	36	35
Foam Glass for the Builders of Eastern Siberia. <u>V. V. P'yanykh</u>	37	35
INDUSTRIAL EXPERIENCE		
Equipment for Heating Departments with Natural Gas. <u>A. I. Sharyi</u>	38	36
Automatic Weighing and Feeding of Coal into Gas-Generator Bunkers. <u>A. I. Zolotarev</u>	39	37
Aeration Feeder. <u>V. I. Danilov</u>	40	38
Automatic Machine for Cutting and Counting Porcelain Earthenware Articles. <u>A. I. Batalov</u>	41	39
Pushing-Type Conveyer. <u>T. V. Sladkova</u>	44	42
PLANTS AND INSTITUTES		
In the Gusev Branch of the Institute of Glass. <u>D. I. Kiegg.</u>	46	43
FROM THE FOREIGN JOURNALS		
Electron-Microscopic Structural Investigations on the Surface of Glass.	48	44
Nepheline-Syenite for the Glass Industry	48	44
Destruction of Refractories in the Upper Structure and Regenerators of Tank Furnaces from the Action of the Glass Batch	49	44
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Effect of Small Additions on the Reactions in Glass Formation.	50	45
Obtaining Optically Uniform Quartz Glass.	50	45
CHRONICLE		
Conference on Grindings and Polishing of Glass and Other Brittle Materials. <u>A. S. Totesh</u> <u>and T. A. Makarova</u>	51	45
REVIEWS AND BIBLIOGRAPHY		
In Print from the State Building Press.	55	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

Russian original dated February, 1961

Vol. XVIII, No. 2

September, 1961

CONTENTS

	PAGE	RUSS. PAGE
The Continuous Mechanized Production of Facing Tiles by the Conveyer-Casting Method. <u>T. S. Blokh, L. F. Shuliko, and E. L. Rokhvarger.</u>	57	1
The Use of Aluminous Alkaline Materials for Bottle Production. <u>D. A. Kryuchenkov</u>	62	6
Heat Exchange in a Zonal Glass Furnace. <u>V. S. Pavlov</u>	65	8
A Tank Furnace for Melting Colored and Superimposed Glass. <u>V. P. Smirnov</u>	69	12
Firing Porcelain in a Gaseous, Whitening Atmosphere. <u>N. A. Zakharikov, N. V. Lesovoi, N. G. Mitin, and L. S. Pioro</u>	73	16
A Rational Technology for Making Pressed Electrical Insulators. <u>R. L. Pevzner, A. A. Zvyagil'skii, and S. I. Finkel'shteln</u>	78	19
Determining Anisotropy and the Artificial Structural Properties in Plastic Ceramic Bodies. <u>F. S. Entelis.</u>	83	24
The Nature of Clay Deflocculation with Electrolytes. <u>K. K. Kvyatkovskaya and V. A. Chernov</u>	88	29
INDUSTRIAL EXPERIENCE		
Enriching Generator Gas with Liquid Fuel. <u>K. R. Vlasov</u>	93	34
A Machine for Faceting Glass. <u>M. M. Krivolapov</u>	95	36
A Self Recording Liquid-Level Meter. <u>B. V. Zhbanov</u>	96	37
A Machine for Cutting Blocks of Earthenware Clay. <u>M. P. Spektor.</u>	98	38
A Conveyor with Aerographing Semiautomatic Machines for Decorating Porcelain. <u>T. V. Sladkova.</u>	100	39
PLANTS AND INSTITUTES		
At the "Krasnyi Mai" Factory and the Leningrad Decorated-Glass Factory. <u>G. I. Samollenko and K. M. Gorev</u>	101	40
At the Konstantinov Branch of the Ukraine Research Institute for Structural Materials and Products. <u>B. F. Kisilitsyn</u>	103	42
FOREIGN EXPERIENCE		
Production Lines in Czechoslovakian Porcelain Factories. <u>I. Ya. Yurchak</u>	105	43
FROM THE FOREIGN JOURNALS		
The Effect of Cooling and Insulation of Tank Blocks on Their Service Life.	107	45
The Strength of Glass with Surface Cracks and the Effect of Ageing Fresh Cracks.	108	45
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
CHRONICLE		
Evaluating Advanced Methods of Enriching Ceramic Raw Materials	109	46
REVIEWS AND BIBLIOGRAPHY		
Catalog of Glasswares	112	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

Russian original dated March, 1961

Vol. XVIII, No. 3

October, 1961

CONTENTS

	PAGE	RUSS. PAGE
Reorganizing The Raw-Material Economy-- a Real Problem for the Glass Industry. <u>E. Yu. Lev</u> and <u>S. M. Shnecrov</u>	113	1
A New Nonstaged Electric Drive for the VVS Machine. <u>K. M. Bezpalov</u> and <u>V. S. Vakhrameev</u>	115	4
A Method of Determining the Breaking and Elastic Characteristics of Films. <u>I. I. Kitaigorodskii</u> , <u>V. V. Rostokinski</u> , and <u>V. I. Elinek</u>	119	8
On the Devitrification of Bottle Glass. <u>N. A. Toropov</u> and <u>R. G. Grebenshchikov</u>	123	12
A Method of Determining the Geometry of Drawn-Glass Surfaces. <u>N. F. Barsukova</u> and <u>V. A. Zhelestov</u> The Effect of Iron Oxides on the Properties of Steatite Insulating Ceramics. <u>V. G. Avetkov</u> and <u>E. I. Zin'ko</u>	126	14
The Use of Sands with Carbonate Inclusions in the Ceramic Industry. <u>B. I. Terekhovskii</u>	130	19
New Source of Feldspathic Material for the Ceramic and Glass Industry. <u>S. M. Kupfer</u>	134	23
INDUSTRIAL EXPERIENCE	137	25
Automatic Control of the Temperature Inside a Glass Furnace. <u>V. M. Obukhov</u> and <u>B. V. Zhbanov</u> . . .	139	27
A Conveyor Drier for Mirrors. <u>P. V. Rudenko</u>	141	30
A New Design for Charging Batch and Cullet into a Glass Furnace. <u>A. K. Tkachev</u> and <u>V. S. Chernopyatov</u>	142	31
The Use of Rare Earths for Coloring Glass. <u>A. I. Alekin</u> , <u>B. N. Nikitin</u> , and <u>N. P. Tsarevskaya</u>	144	33
Punching the Spout Grids in Teapots. <u>L. V. Akulin</u>	146	35
PLANTS AND INSTITUTES		
A New Annealing Lehr for Making Insulators on a Mechanized Line. <u>V. S. Gorbanev</u>	148	36
Glass Enameled Facing Tiles. <u>G. A. Storozhenko</u>	148	37
LETTERS TO THE EDITOR		
The Use of Burners for Combusting Liquid Fuel in Furnaces Used in Glass Factories. <u>A. A. Sukhov</u> . . .	150	38
FROM THE FOREIGN JOURNALS		
Making Plates of Glass with Smooth Surfaces without Mechanical Treatment.	157	43
A New Method of Measuring Strains in Plate Glass	157	43
The Preparation of Plasticized Ceramic Bodies.	158	43
CHRONICLE		
Conference on Increasing the Efficiency of Glass Furnaces	160	44
Available From Consultants Bureau		(Cont'd)

STEKLO I KERAMIKA
Vol XVIII, No 3, 1961.

CONTENTS (continued)

	PAGE	RUSS. PAGE
The IV th All-Union Congress on Physicochemical Analysis.	162	46
REVIEWS AND BIBLIOGRAPHY		
"Glass Technology" <u>A. G. Minakov</u>	165	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian original dated April, 1961)

Vol XVIII, No 4

October, 1961

CONTENTS

	RUSS. PAGE	PAGE
Intensifying Glass Melting and Working Processes	187	1
Means of Increasing the Output of Glass Furnaces. <u>A. S. Ruga</u>	189	3
Better Utilization of Flue-Gas Heat in Glass Furnaces. <u>D. B. Ginzburg, and M. Ya. Khinkis</u>	172	6
A Glass-Tank Furnace without a Conditioning Tank. <u>A. A. Zaliznyak</u>	177	11
Service of High-Alumina Refractories in Tank Furnaces. <u>N. M. Galdina</u>	180	14
Investigating the Strength of Ground and Polished Glass. <u>A. S. Totesh, L. F. Grigor'eva, and M. V. Strel'nitsa</u>	185	19
Marble-Like Facing Tiles from Amelan Comendite. <u>L. M. Blyumen</u>	187	22
Semidry Pressing of Ceramic Drainpipes by the Hydrostatic Method. <u>G. S. Blokh, L. G. Brodskii, R. M. Zalonts, E. L. Rokhvarger, and N. P. Sheverdyshev</u>	189	24
Filter Cloths Based on Caprone Fiber. <u>R. M. Boginski, P. M. Bugai, and P. M. Bykov</u>	193	27
Luster Crackle. <u>P. A. Levin</u>	196	30
INDUSTRIAL EXPERIENCE		
The Use of Aluminum Hydroxide for Melting Plate Glass for Floatless Drawing. <u>O. K. Zaporozhseva and S. V. Gorbai</u>	199	32
Mechanizing the Cutting and Transporting of Showcase Glass. <u>P. M. Krivoruchko</u>	200	33
An Improved Floating Level Meter for Glass. <u>A. K. Chistilin and D. S. Grebenyuk</u>	201	34
Device for Regulating Steam Pressure. <u>V. M. Obukhov</u>	204	37
Measuring the Compressive Force when Pressing Asbestos Rollers. <u>N. A. Shirokov</u>	205	38
PLANTS AND INSTITUTES		
In the Planning and Design Office of the Institute of Glass. <u>I. I. Chugunov and M. I. Resnikov</u>	207	39
LETTERS TO THE EDITOR	210	41
FROM THE FOREIGN JOURNALS		
The Use of Cerium Dioxide in the Glass Industry. <u>C. Hampel</u>	212	43
Basic Brick for Tank-Furnace Regenerators. <u>F. Brunnsteiner</u>	213	43
CHRONICLE		
More New Goods from Glass and Ceramics	215	45
New Developments in the Production of Mirrors and Glass Tableware	216	46
Available From Consultants Bureau		

(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
REVIEWS AND BIBLIOGRAPHIES		
"Foreign Glass Making". <u>K. T. Bondarev</u>	218	47
In Print from the State Building Press	219	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated May, 1961)

Vol. XVIII, No. 5

October, 1961

CONTENTS

	PAGE	RUSS. PAGE
Production Reserves in the Service of the National Economy	223	1
On Design Changes in Glass Furnaces. <u>M. I. Koz'min</u>	225	4
Oil As a Secondary Fuel for Glass Furnaces. <u>N. V. Dubrovina, A. A. Zaliznyak, and D. I. Klegg</u>	228	7
Melting Lead Crystal in a Tank Furnace. <u>G. V. Savonichev, I. A. Figurovskii, S. I. Sobolevskii, and V. V. Bykov</u>	229	9
Conditions for Rapid Finishing of Gold Ruby. <u>M. M. Skornyakov</u>	232	12
Toward the Method for Calculating the Properties of Glass. <u>A. A. Appen</u>	235	15
Mullite with a Low Refractive Index. <u>N. I. Min'ko</u>	237	17
Measuring the Hardness of Electro- and Radio-Technical Ceramics. <u>P. P. Budnikov and Ya. M. Kantor</u>	239	18
Opaque Glaze for Electric Insulating Products. <u>M. G. Manvelyan, N. I. Kus'mina, and V. A. Virabyan</u>	244	24
Fractionation of Clay Materials in a Hydrocyclone. <u>N. S. Belostoukaya and T. Kh. Fedorova</u>	245	25
Pottery from Local Clays. <u>Yu. G. Shteinberg</u>	248	27
INDUSTRIAL EXPERIENCE		
Developing the Output of Heat-Resistant Glass Pipes. <u>P. G. Tokarev</u>	253	32
Mechanizing the Tile Feed to Glazing Machines. <u>A. R. Rabinovich</u>	255	35
Automation of the Control of Mechanical Presses. <u>R. I. Mazo</u>	256	36
Feeder with Two Cups. <u>D. P. Kropotov</u>	257	37
Washing-Drying Equipment for Flat Apparatus Glasses. <u>Yu. Ya. Shvagirev</u>	259	39
PLANTS AND INSTITUTES		
Complex Mechanization and Automation in Porcelain Plants in the Kiev National Economic Council	260	40
FROM THE FOREIGN JOURNALS		
The Productivity of Glass Tank Furnaces	263	42
Cooling and Insulating Tank Blocks in Glass Furnaces	264	43
Insulating Tank Walls Built from Electrofused High-Alumina Refractories	265	44
The Phase Rule Equilibrium and the Destruction of Acid Refractories by Molten Glass.	266	44
New Data on the Effect of the Grain Size of Sand on the Fining of Glass	267	45
Forming Glasswares by Centrifuge.	267	45
New Developments in the Production of Saggars and Kiln-Car Furniture	268	45
Available From Consultants Bureau		(Contd)

STEKLO I KERAMIKA
Vol XVIII, No 5, 1961.

CONTENTS (continued)

	PAGE	RUSS. PAGE
CHRONICLE		
A Meeting of the Editorial Council of "Steklo I Keramika" in a Factory	289	46
REVIEWS AND BIBLIOGRAPHY		
The First Factory Catalog of Structural and Technical Glass. <u>V. N. Alekseev</u>	272	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

Russian original dated June, 1961

Vol. XVIII, No. 6

November, 1961

CONTENTS

	PAGE	RUSS. PAGE
Toward the 22nd Congress of the CPSU. Growth of Creative Activity in the Masses	273	1
Heating Glass Furnaces with Natural Gas. <u>S. S. Kachalov and G. I. Kovsh</u>	274	3
Melting Glass in Furnaces with Divided Zones. <u>N. A. Shestak</u>	277	6
Reviewing the Window-Glass Standard. <u>S. M. Brekhovskikh and M. R. Savitskii</u>	278	7
Equipment for the Horizontal Softening and Hardening of Automobile Glasses. <u>N. A. Abel'chuk, S. I. Malyahev, and G. A. Lukonin</u>	280	9
Relationship Between the Density of Aqueous Solutions of Alkali Silicates and Their Composition. <u>M. A. Matveev and A. I. Rabukhin</u>	282	12
Controlling the Chemical Composition of Glass by Its Optical Properties. <u>R. S. Shevelevich</u>	285	14
Rapid Firing Schedules for Facing Tiles for an Automated Factory. <u>G. S. Blokh and L. F. Shuliko</u>	289	17
Mass Production of Facing Ceramic Tiles. <u>M. G. Lundina and K. I. Rostovtseva</u>	294	23
Liquid Gold for Glass and Porcelain. <u>S. G. Tumanov</u>	297	26
INDUSTRIAL EXPERIENCE		
Conveyor for Transporting and Cutting Plate Glass. <u>F. A. Oblival'nyi, V. I. Khudolei, and I. A. Valagura</u>	302	31
The Use of Ammonium Sulfate for Intensifying Glass Melting. <u>E. D. Didenko</u>	304	33
A Device for Automatic Flanging of Glass Plates. <u>G. I. Mitkevich</u>	305	34
The Effectiveness of Using Rotation Mills for Grinding Clay Materials. <u>G. P. Sobolev and Yu. S. Mitsev</u>	308	37
The Use of Infrared Rays in Laboratory Practice. <u>R. I. Tsol</u>	311	40
PLANTS AND INSTITUTES		
In the Ukraine Branch of the Glass Fiber Institute. <u>V. B. Bur'yan</u>	313	41
ECONOMIC THEMES		
Specializing the Production of Containers—a Significant Reserve for Reducing the Cost of Glass. <u>M. I. Berezhkovskaya</u>	315	43
FROM THE FOREIGN JOURNALS		
The Influence of Wet and Dry Methods of Grinding on Kaolin and Bentonite.	317	45
Rapid Method of Determining Potassium and Sodium in Clay Materials.	317	45
The Growth of Glass-Plastics Manufacture in the USA	318	45
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
Warming Up Glass Tank Furnaces	318	45
Service of Basic Refractories in a Highly Alkaline-Vapor Atmosphere	319	46
Use of Basic Brick in the Checkers of Tank Furnace Regenerators	320	47
Aluminum Heat Reflecting Baffles for Furnace Insulation	321	47
REVIEWS AND BIBLIOGRAPHY		
Strontium Glazes. Reviewed by <u>Z. A. Nosova</u>	322	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated July, 1961)

Vol. XVIII, No. 7

December, 1961

CONTENTS

	PAGE	RUSS. PAGE
More Glass and Ceramics for Building	323	1
Developing the Melting of Glass ZS-4 in Tank Furnaces. <u>F. P. Oshchipkov and V. K. Frolov</u>	326	5
Toward a Method of Calculating the Annealing Schedule. <u>G. M. Bartenev</u>	330	8
The Grain Strength of Abrasive Powders. <u>P. Ya. Bokin</u>	331	9
Some Peculiarities in the Structures of Vertically Drawn Plate Glass. <u>A. S. Totesh, L. F. Grigor'eva,</u> <u>and M. V. Strel'tsina</u>	334	12
A Continuous Conveyor System for Producing and Processing Glass Tableware. <u>G. V. Savonichev,</u> <u>I. A. Figurovskii, V. I. Kalmykov, and V. V. Bykov</u>	336	15
Automatic Electric Dewatering of Ceramic Slips. <u>A. B. Rabinovich and A. I. But</u>	340	18
Rapid Drying of Sanitary Structural Goods. <u>B. N. Gak and N. S. Gavrillov</u>	342	20
Colored Glazed Tiles with Light Tones. <u>O. V. Cherepova, N. A. Sakharova, B. M. Golik,</u> <u>L. K. Parnovskii, and E. L. Gumenyuk</u>	347	24
A New Method for Determining the Sensitivity to Drying of Clay. <u>V. V. Bременко and L. V. Dolgina</u> ..	349	26
An Effective Method of Grinding High-Alumina Ceramics. <u>P. P. Budnikov and Ya. M. Kantor</u>	352	29
Technical Strontium Carbonate - A Useful Substitute for Scarce Raw Materials. <u>M. S. Vasnev and</u> <u>E. K. Zhukov</u>	356	33
New Base for Quartz-Feldspathic Material. <u>V. V. Kozyrev</u>	357	34
Enameling Jewelry Made from Aluminum. <u>N. M. Pavlushkin, A. K. Zhuravlev, and S. I. Etingon</u> ...	358	35
INDUSTRIAL EXPERIENCE		
Automatic Flame Change-Over for Furnaces Working on Natural Gas. <u>V. K. Kovtun</u>	361	37
The Use of Heat Resistant Steels for Press Molds. <u>A. N. Afana's'ev and S. I. Andreev</u>	363	39
Melting Glass with a Low Boric-Acid Content. <u>G. Ya. Ostrovskaya</u>	364	41
The Use of Russian Made Purple Luster. <u>T. N. Chemova</u>	365	42
Continuous Line for Glazing Plates. <u>A. A. Polenov</u>	366	43
PLANTS AND INSTITUTES		
To Greet 22nd Congress of the CPSU	368	44
ANSWERS TO READERS' LETTERS		
Agriculture Needs a Large Number of Drainpipes for the Drying Out of Flooded, Swamped Areas.	370	45
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
FROM THE FOREIGN JOURNALS		
Production of Sanitary-Structural Ceramics in the USA	371	48
Experience with Firing Sewer Pipe in Tunnel Kilns.....	371	46
The Use of Pyrophyllite in Sanitaryware Bodies	373	48
Heat Exchange Between Glass and the Rough Mold of Bottle Machines.....	374	48
Rotation Vacuum-Blowing Machine for the Production of Glass Goods Without Joints	374	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated August, 1961)

Vol. XVIII, No. 8

January, 1962

CONTENTS

	PAGE	RUSS. PAGE
Urgent Problems for the Planning Institutes and Design Bureaus of the Glass Industry.....	377	1
Selecting a Flow Sheet for High-Output Machine-Tank and Cutting Departments. K. A. Myasnikov. .	379	4
Means of Increasing the Output of Tank Furnaces Melting Plate Glass. <u>M. G. Stepanenko and</u> <u>V. S. Pavlov</u>	388	12
Continuous Line for Braking, Cutting and Packing Glass. <u>F. I. Torlin</u>	392	18
Automatic Control of the Flame-Direction Changes in Tank Furnaces. <u>M. A. Zezin, I. D. Rakov, and</u> <u>N. T. Popov</u>	394	18
The Formulation of Ceramic Batches According to their Formability. <u>V. S. Fadeeva</u>	399	22
Sound-Absorbing Porous Ceramics. <u>V. T. Veankov, N. I. Lobanov, and K. A. Smirnova</u>	403	26
Rational Equipment for Producing High-Grade Pegmatite. <u>M. P. Boginskii, B. I. Gaidash, and</u> <u>V. N. Glushchenko</u>	407	31
A Black Glaze for Porcelain. <u>V. P. Shvaiko</u>	410	33
Glazes Based on Local Borosilicate Minerals. <u>L. I. Koren', L. I. Sokolov, and R. V. Marach</u>	414	35
INDUSTRIAL EXPERIENCE		
Chaning the "Deck" Under the Hearth of the Central Part of the Conditioning Channel. <u>F. A. Oblival'nyi,</u> <u>L. A. Lushin, M. T. Sidorov, and M. M. Fedorov</u>	414	37
Machine for Glazing Domestic Porcelain. <u>L. G. Reznikov</u>	414	37
Rapid Determination of the Water Content of Ceramic Bodies with the BM-1 Moisture Meter. <u>O. A. Dubova and L. M. Voloshinova</u>	417	40
A Triple-Spindle Machine for Removing Defects from the Surface of Porcelain Goods. <u>A. I. Batalov</u>	418	41
PLANTS AND INSTITUTES		
Meeting the 22nd Congress of the CPSU.....	420	42
FROM THE FOREIGN JOURNALS		
The Use of Waste Heat from Regenerative Glass Tank Furnaces.	421	43
Boiler Utilizers in an English Glass Works.	422	43
The Use of Double-Pipe Metallic Recuperators in Glass Tank Furnaces.....	422	44
Insulating Glass Tank Furnaces.	423	44
The Desirable Properties of Dinas.....	423	44
The Production of Building Panels Using Ceramics in France.	424	45
Use of a Mercury Porosimeter for Studying the Structure of Ceramics.....	425	45
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
CHRONICLE		
Conference on the Rational Standardization of Window-Glass Consumption	426	46
Nikolai Nikolaevich Kachalov	428	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated September, 1961)

Vol. XVIII, No. 9

February, 1962

CONTENTS

	PAGE	RUSS. PAGE
From the Program of the Communist Party of the Soviet Union	431	1
Factory Workers Greet the 22nd CPSU Congress with Magnificent Production Achievements. In the Competition for the "Communist Labor Factory" Status. <u>F. A. Oblivat'nyi</u>	431	2
On the Road of Technical Progress. <u>E. A. Engver</u>	433	3
Production Increased and Range of Goods Expanded. <u>K. L. Kozlenko</u>	435	5
Range of Socialistic Competition Is Expanding	437	6
Evaporative Cooling of the Tank Walls of Tank Furnaces. <u>N. A. Zakharikov, A. I. Rozhanskii, and V. A. Sukhovei</u>	437	7
Experience with Improvements of a Glass Furnace. <u>F. I. Torlin</u>	443	12
An Improved Method of Controlling the Uniformity of the Batch. <u>V. I. Shelyubskii and Ts. A. Karchmar</u>	447	16
Prospective Uses of Radioactive Isotopes and Nuclear Radiation in the Glass Industry. <u>S. M. Brekhovskikh</u>	452	20
Improving GOST for Window Glass	456	24
Automatic Regulation of the Firing Schedule in Tunnel Kilns. <u>I. S. Rozenblyum and E. B. Manusov</u>	457	25
The Effects of Elastic and Residual Deformation on the Shaping of Ceramics. <u>M. Ya. Golovanova and A. V. Golovanov</u>	462	29
Investigating Fine Fractions of Clays and Kaolins with the Aid of Supercentrifugal Analysis. <u>N. S. Belostorskaya</u>	465	33
INDUSTRIAL EXPERIENCE		
Installing Additional Bridges in the Center of the Working Channel. <u>F. A. Oblivat'nyi, L. A. Lushin, and M. T. Sidorov</u>	469	36
Improving Working Conditions in Manual Process Departments. <u>V. A. In-Din-Sin, I. G. Slivinskii, and I. F. Yurkov</u>	469	36
Mechanizing the Separation of Filterpress Frames. <u>M. P. Spektor</u>	471	38
Two Stage Air Purification. <u>L. V. Lukashova</u>	472	39
ECONOMIC CONSIDERATIONS		
Means of Cutting the Costs of Window and Polished Glass in 1961-1963. <u>M. A. Plotkina and B. L. Pozin</u>	473	40
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
PLANTS AND INSTITUTES		
Substantial Drop in Production Costs. <u>M. I. Yakovlev</u>	476	42
FROM THE FOREIGN JOURNALS		
U. S. Plate Glass Production in 1960	478	44
Preventing Breaks in the Glass Ribbon on Vertical Drawing Machines	479	44
An Improved Polisher for Plate-Glass Processing	479	44
Service of Silica Brick in Glass Tank Furnaces	479	44
Production of Double Hermetic Glass Packets	480	45
Automation in Sewer Pipe Production	480	45
Glaze for Sewer Pipes	481	45
Preventing Pinholes in Zircon Glazes.	481	45
CHRONICLE		
For Further Technical Progress in the Glass Industry	483	46
Conference on Enamels and Metal Enamelling.	485	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated October, 1961)

Vol. XVIII, No. 10

March, 1962

CONTENTS

	PAGE	RUSS. PAGE
For the Maximum Acceleration of Scientific-Technical Progress.	487	1
THE GLASS AND CERAMIC INDUSTRY AND THE 22nd CONGRESS OF THE CPSU		
Great Attainments. <u>F. G. Solinov</u>	490	4
Vigorous Developments. <u>A. A. Kopeikin</u>	493	7
Mechanization and Automation of Production. <u>I. Ya. Yurchak</u>	496	10
Improving the Design and Performance of Glass Furnaces. <u>Prof. D. B. Ginzburg</u>	497	12
Producing High-Strength Glasses. <u>I. A. Boguslavskii</u>	504	19
Towards the Discussion on Calculating Glass Forming Processes. <u>K. I. Braginskii</u>	508	22
Granulating the Glass Batch Containing Coarse Sand. <u>M. F. Gur'yanova and Ya. A. Prolov</u>	513	26
The Theoretical Principles of Formulating Ceramic Bodies. <u>S. P. Nichiporenko, V. V. Khil'ko,</u> <u>and E. A. Kostenko</u>	514	28
A Rational Firing Schedule for Large Diameter Sewer Pipes. <u>P. I. Berenshtein</u>	520	33
INDUSTRIAL EXPERIENCE		
The Production of Large Sizes of Plate Glass by the Vertical Drawing Method, <u>V. I. Orzhevskii and V. I. Vanin</u>	524	37
Service of Refractories During High-Temperature Glass Melting. <u>O. A. Dubova and</u> <u>L. M. Voloshinova</u>	527	39
New Impulse Feeder for Automatic Regulation of the Glass Level in Furnaces. <u>I. Gezalyan and</u> <u>V. Minasyan</u>	531	43
Small Gage 24-Channel Muffle Kiln. <u>A. E. Rabinovich and N. A. Kuznetsova</u>	532	44
PLANTS AND INSTITUTES		
Experimental Equipment PMZ. <u>V. S. Gorbanev</u>	533	45
FROM THE FOREIGN JOURNALS		
The Future of Structural Glass	535	46
The Production and Use of Glass Fiber in USA.	536	47
Heat-Transfer Conditions in Parsons of Bottle Machines.	537	48
Available From Consultants Bureau		

Glass and Ceramics

A translation of Steklo i Keramika, an organ of the Ministry of the
Construction Materials Industry of the USSR

The publication of this translation of Steklo i Keramika is supported by a grant from the
National Science Foundation, administered by the American Ceramic Society

(Russian Original Dated November, 1961)

Vol. XVIII, No. 11

April, 1962

CONTENTS

	PAGE	RUSS. PAGE
Toward New Limits.	541	1
Cooling Glass Goods in Tunnel Annealing Furnaces. <u>V. A. Kuzyak</u>	543	4
The Relationship between Chemical and Mechanical Processes during Glass Polishing. <u>V. A. Dubrovskii</u>	549	9
The Polishing Capacity of Russian and Imported Polishing Powders. <u>A. I. Korelova</u> and <u>T. A. Makarova</u>	554	14
More on the Temperature of the Higher Crystallization Limit for Glasses Containing 18% Sodium Oxide. <u>M. V. Okhotin</u>	558	18
The Use of Ultrasonics for Quartz Sand Enrichment. <u>V. I. Kevnitsuev</u> , <u>Yu. G. Dmitriev</u> , <u>N. Ya. Topychkanov</u> , <u>V. V. Peskov</u> , and <u>A. V. Khorobrykh</u>	559	19
The Relationship between the Strained State of Metal-Glass Seals and Hardening Temperature. <u>A. K. Mindyuk</u>	561	21
A Rapid Method for Determining SiO_2 in Glass. <u>O. S. Maksimova</u> and <u>G. D. Rozhkina</u>	562	22
Red, Orange and Yellow Opal Glasses. <u>A. N. Dauval'ter</u>	564	23
Rapid Drying of Porcelain. <u>N. A. Zakharikov</u> and <u>S. A. Blokh</u>	565	25
The Causes of Glaze Destruction on Accumulator Cases. <u>E. I. Zavarzina</u> and <u>R. K. Kordonskaya</u>	569	28
The Effect of Iron-Bearing Enamel Composition on the Whiteness of the Coating. <u>K. P. Azarov</u> and <u>V. E. Gorbatenko</u>	573	32
INDUSTRIAL EXPERIENCE		
Complex Mechanization of Test Tube Production. <u>V. V. Gaidukov</u>	577	35
Fining Glass by Boiling with Compressed Air. <u>Yu. V. Razumov</u> and <u>M. A. Petkevich</u>	579	37
The Use of a Magnetic Separator for Freeing Glass Cullet from Crown Crust. <u>M. V. Arutsev</u>	580	38
A Device for the Mechanical Arrangement of Bottles. <u>S. S. Akulich</u> and <u>A. P. Kozlov</u>	580	39
PLANTS AND INSTITUTES		
In the Design Bureau of the Department of Pottery and Glass Industry of the Kiev National Economic Council. <u>E. B. Guz</u>	582	40
FROM THE FOREIGN JOURNALS		
Electric Melting of Glass.	584	42
The Design of the Hearth of Tank Furnaces.	584	42
Available From Consultants Bureau		(Contd)

CONTENTS (continued)

	PAGE	RUSS. PAGE
High Strength Ramming Body for Hot Repairs to Tank Furnaces	585	42
A Machine for Drawing Optically Defect-Free Plate Glass	585	43
Improved Machine for Polishing Plates of Glass	586	43
Device for Uniform Distribution of Pressure on Grinders and Polishers	586	43
Polisher for Plate Glass	587	43
Centrifugal Method of Forming Hollow Glass Articles	587	43
Method for Automatic Lubrication of Glass Molds	587	43
The Effect of Partial Replacement of Na_2O by Li_2O on the Properties of Opaque Glasses	588	44
Open-Flame Tunnel Kiln for Firing Glazed Building Ceramics	589	44
Use of Liquid Fuel in the Ceramic Industry	589	44
Restricting Sulfates in Fired Ceramics	590	45
CHRONICLE		
Glass and Ceramics at the Exhibition of Attainments by the USSR National Economy	591	48
Seminar on Automation of Production Processes in Glass Plants. <u>K. M. Bezpalov</u>	592	44
CRITICISM AND BIBLIOGRAPHY		
"Refractories for Glass Furnaces," by N. V. Solomin. Reviewed by <u>F. A. Oblival'nyi</u>	594	47
Available From Consultants Bureau		

HIGH TEMPERATURE

A translation of (ТЕПЛОФИЗИКА ВЫСОКИХ ТЕМПЕРАТУР)

a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 1, Number 1

July-August, 1963

CONTENTS

	P A G E	
	ENG.	RUSS.
Research in the Field of High-Temperature Thermophysics — V. A. Kirillin.(R)	1	3
Thermal Diffusivity in Tungsten at Temperatures between 1600 and 2980°C — O. A. Krnev and A. A. Stel'makh(E)	5	8
Thermophysical Properties of Nickel-Chromium-Iron Alloys — B. E. Neimark, V. E. Lyustemik, É. Yu. Anichkina, and T. I. Bykova(E)	9	12
Spectral Coefficients of Tantalum, Molybdenum and Niobium Radiation — B. A. Krustalev, I. P. Kolchenogova, and A. M. Rakov(E)	13	17
Experimental Determination of the Integral Emissivity of Metals and Alloys at High Temperatures — V. A. Petrov, V. Ya. Chekhovskoi, and A. E. Sheinblin(E)	19	24
Determination of the Emissivity of Stainless Steel after Various Surface Treatments as a Function of Temperature — A. Komarek and B. K. Strigin(E)	24	30
Use of Experiments on Varying-Rate Ablation to Determine the Thermal Conductivity and Other Physical Properties of Vitreous Heat-Shield Materials — Yu. V. Polezhaev (E/T)	27	33
Conservation of Constancy of Composition in Binary Alloys during Their Vaporization from an Open Surface in a Vacuum — R. G. Avarbé and S. S. Nikol'skii. (T)	32	39
Variation of the Electrical Resistance of Liquid Metals with the Specific Volume — A. N. Solov'ev (T/E)	37	45
Gravitational Effects in the Measurement of c_p Near the Critical Point — V. V. Sychev and V. V. Andrianov (T/E)	41	50
Theoretical Calculation of the Viscosity, Thermal Conductivity, and Prandtl Number for Argon in the Presence of Ionization — P. P. Kulik, I. G. Panevin, and V. I. Khvesyuk (T)	45	56
Thermodynamic Properties of Water Vapor at High Temperatures — V. V. Rybakov. (T)	52	64
Determination of the Matrix Element of the Dipole Moment for the Electronic Transition of the Violet Band System of Cyanogen. I — E. M. Kudryavtsev, E. F. Gippius, A. N. Pechenov, and N. N. Sobolev (E/T)	60	73
Theoretical Calculation of Heat Exchange and Frictional Resistance in Turbulent Flow in Tubes of an Incompressible Fluid with Variable Physical Properties — B. S. Petukhov and V. N. Popov (T)	69	85
Available From Consultants Bureau	(Contd)	

ТЕПЛОФИЗИКА ВЫСОКИХ ТЕМПЕРАТУР

Vol I, No 1, 1963.

CONTENTS (continued)

	P A G E	
	ENG.	RUSS.
Limiting Values of the Heat Exchange Coefficient - P. L. Kirillov (T)	84	102
Experimental Study of the Effect of Acceleration on the Boiling Crisis in Liquids at the Saturation Temperature - V. I. Morozkin, A. N. Amenitskii, and I. T. Alad'ev (E)	88	107
Bremsstrahlung Study of the Phase Composition of the Vapor-Water Mixture in a Pipe Undergoing Heating - Z. L. Miropol'skii and R. I. Shneerova. (E)	93	112
Effect of the Conductivity of the Walls on the Resistance to the Motion of a Liquid Metal inside a Circular Tube in a Magnetic Field - N. M. Turchin. (E)	98	118
Scattering of Thermal Radiation in a Polydisperse Turbid Medium - A. G. Blokh. . . (T)	101	121
Application of Generalized Angular Coefficients to the Calculation of Radiative Heat Transfer - L. R. Mikk (T)	108	128
Thermocouples with Electrodes of Refractory Carbides for Use Up to 3000°C - A. D. Panasyuk and G. V. Samsonov (E)	116	136
Reproducibility of the Calibration of Platinum - Platinum-Rhodium Thermocouples over a Wide Temperature Range - V. E. Lyusternik (E)	120	141
Some Results of the Use of Transition-Metal Carbides as Thermionic Emitters in Electronic Devices - S. P. Rakitin, V. S. Fomenko, and V. N. Paderno (E)	124	145
REVIEW		
Noncontact Methods of Measuring the True Temperature of Heated Bodies - A. N. Gordov (R)	128	149
CHRONICLES		
Seminar on Methods of Preparation, Physical Properties, and Electronic Structure of High-Melting-Point Metals and Their Compounds and Alloys - V. A. Petrov.	134	156
All-Union Conference on Heat Exchange and Hydraulic Resistance in a Two-Phase Flow. . .	135	157
BIBLIOGRAPHY.	136	158
Available From Consultants Bureau		

HERALD OF COMMUNICATIONS

No 1, 1964

Following is a cover-to-cover translation of the Russian-language periodical Vestnik svyazi (Herald of Communications), Vol XXIV, No 1, published by the Ministry of Communications USSR and the Central Committee of the Communications, Motor Transport and Highway Workers Trade Union, January 1964, Moscow.

TABLE OF CONTENTS

	<u>Page</u>
EDITORIAL -- Chemical Materials for the Communications Industry	1
<u>COMMUNICATION ENGINEERING</u>	
Single-Quad High-Frequency Communication Cables in Plastic Sheathings, by P. A. Frolov and A. A. Kashutin	8
Changeover of Low-Frequency Amplifiers of Individual Frequency Converter Rack to Transistors, by V. G. Bondarenko and B. A. Netupskiy	15
Adapter Equipment for the Multiplexing Equipment of Radio-Relay Systems R-60/120, by G. N. Stepanov, G. K. Parr and L. D. Dvortsov	24
A Device for Plotting Radiation Patterns of Medium-Wave-Band Antennas, by E. E. Geyn	34
Combined Cathode Protection of the Main-Line Communication Cables and Conduits from Corrosion, by K. K. Nikol'skiy	42
Available From JPRS 23981	(Contd)

New Procedure in the Issuance of University Diplomas, by V. N. Lebedev

47

COMMUNICATION ECONOMICS

The Raising of Labor Productivity Is the Most Important Task, by S. A. Vartan'yan

49

ORGANIZATION AND OPERATION OF COMMUNICATION FACILITIES

Conference of Long Distance Telephone Workers

56

Improved Handling of Long Distance Through Calls, by Ye. S. Gonchar and O. G. Sokolovskaya

58

Long Distance Telephone Operator's Work Described, by L. B. Loginova

62

* * *

The Subscriber Must Receive Newspapers on Time

66

Improvement in Mail Services Demanded

73

Delivery of Printed Matter and Mail Speeded Up, by G. L. Polyakov

75

Shortcomings in Delivery of Periodical Press Must Be Eliminated

81

Improvement of Telegraph Service, by S. V. Kester

84

The Automation of Rostov-on-Don Rediffusion Station, by L. A. Dotsenko and L. A. Okun'

87

Dissemination of the Experience of Leading Workers, by V. M. Chukovich

95

AT COMMUNIST-LABOR ENTERPRISES

Uzbek Money-Orders Audit Bureau, by A. N. Kudinov

102

High Titles Awarded

108

* * *

Work of Radio Amateurs

113

Available From JPRS 23981

(Contd)

VESTNIK SVYAZI
No 1, 1964.

CONTENTS (Contd)

	<u>Page</u>
Appendix	120
Latest Communication Equipment	120
University of Communication Economics and Engineering	123
Television Receivers in the Steppe	124
Science to the Assistance of Industry	126
New State Standards	128
Telecasts from Voronezh	129
 <u>IMPROVEMENT WORK AND INVENTION</u>	
Results of Competition for Better Postal Service Mechanization	130
Replacement of Phanotrons VG-286 in the TU-600 Equipment with Diodes, by L. N. Zaikin and B. N. Gonov	132
 * * *	
The Exhibition of Polish Electric and Radio Measuring Equipment	134
Available From JPRS 23981	

PROBLEMS OF ENGINEERING SEISMOLOGY

No. 8

- USSR -

[Following is a translation of the Russian-language journal Voprosy inzhenernoy seismologii 8 (English version above), Tr. instituta fiziki zemli imeni O. Yu. Shmidta (Transactions of the Institute of the Physics of the Earth imeni O. Yu. Shmidt), No. 28 (195), Moscow, 1963. Full bibliographic information is given with each article.]

Table of Contents

	<u>Page</u>
On the Seismic Micro-regioning of the Territory of Petropavlovsk-Kamchatskiy	1
Bulletin of Strong Earthquakes in the USSR in 1960	83
Basic Seismological Data Used in the Detailed Seismic Regioning of the Valley of the River Vakhsh	105
Strains and Stresses in the Foundations of Structures During Earthquakes	124
On Methods of Calculating Hypocentral Distances in Seismic Micro-regioning	134
On the Instrumental Determination of Engineering Spectra	146
Graphs of Recurrence of Periods in Earthquakes of Various Intensity	164
Practical Methods of Calculating the Main Forms of Oscillations for Systems with Several Degrees of Freedom	168
Available From JPRS 24051	(Contd)

VOPROSY INZHENERNOY SEISMOLOGII
No 8, 1963.

CONTENTS (Contd)

Oscillations of Arch Dams During a Seismic Disturbance	176
Selection of Dynamic Equivalence for a Seismic Disturbance with an Intensity of 7	187
The Behavior of Buildings Located on Different Soils During the Passage of a Seismic Wave	195

Available From JPRS 24051

Soviet Physics TECHNICAL PHYSICS

A Translation of the "Zhurnal Tekhnicheskoi Fiziki"

(Russian Original Vol. 33, No. 9, pp. 1021-1148, September, 1963)

Vol. 8, No. 9, pp. 763-858

March, 1964

CONTENTS

	PAGE	RUSS. PAGE
A Sphere in the Field of a Current Loop. <u>A. A. Fomin</u> (T)	763	1021
Maximum Efficiency of a Plasma Generator. <u>G. V. Gordeev</u> (T)	770	1031
Plasma Decay in a Toroidal Magnetic Field. <u>V. E. Golant, O. B. Dantlov,</u> <u>and A. P. Zhilinskii</u> (T/E)	778	1043
Visual Study of Plasma Bursts. <u>K. D. Sinel'nikov, B. G. Safronov, V. G. Padalka,</u> <u>and L. I. Demidenko</u> (E)	786	1055
Aperiodic Instability of a Relativistic Plasma. <u>S. S. Molisev</u> (T)	790	1050
Dynamics of the Electrons in a Grouping Section with Constant Phase Velocity of the Wave, as Affected by the Electromagnetic Field Configuration at the Input Matching Section. <u>A. I. Zykov, E. K. Ostrovskii, and L. A. Makhnenko</u> (T/E)	795	1066
Interaction of an Electron Beam with a Plasma Existing in a Magnetic Field. <u>M. F. Gorbatenko</u> (T)	798	1070
Formation and Development of Electromagnetic Shock Waves in Transmission Lines Containing Unsaturated Ferrite. <u>L. A. Ostrovskii</u> (T)	805	1080
Theta-Pinch Plasma in a Magnetic Network. <u>Ya. F. Volkov, V. T. Tolok,</u> <u>and S. M. Krivonozhko</u> (E)	814	1093
Motion of Electrons in a Space-Periodic Helical Magnetic Field. <u>R. A. Demirkhanov,</u> <u>Yu. V. Kursanov, D. G. Baratov, and G. V. Kharin</u> (E/T)	819	1098
Discharge in a Narrow Gas Space Bounded by a Dielectric on One or Both Sides. <u>A. V. Dmitriev</u> (E/T)	823	1104
Acceleration of a Plasma by a High-Frequency Field. <u>M. L. Iovnovich</u> (T)	832	1116
High-Frequency Resonance Discharge in a Cyclotron. <u>B. A. Zager and V. G. Tishin</u> (E)	835	1121
Potential Distribution in a Thermoelectronic Energy Converter. <u>S. A. Maev</u> (T)	842	1131
 BRIEF COMMUNICATIONS		
Flute Instabilities in a Rotating Plasma Filament. <u>Yu. V. Vandakurov</u> (T)	844	1134
The Interaction of Shock Waves. <u>R. A. Antonova, E. M. Barkhudarov, B. P. Zhvaniya,</u> <u>G. I. Rostomashvili, and N. L. Tsintsadze</u> (E)	846	1137
Solution of the nonlinear Equation for Plasma Decay in a Magnetic Field. <u>V. E. Golant and G. A. Grinberg</u> (T)	848	1139
Measurement of the Volume Removal Coefficient for Electrons in Plasma Decay in Oxygen. <u>A. I. Anisimov, N. I. Vinogradov, and V. E. Golant</u> (E)	850	1141
 LETTERS TO THE EDITOR		
Problem of Calculating the Magnetic field of a Cylindrical Conductor of Elliptical Cross Section (Comment on an Article by Yu. I. Kulakov). <u>N. I. Doinikov</u> (T)	852	1144
Mobility and Transverse Scattering of Cesium Ions in a Weakly Ionized Cesium Plasma. <u>N. D. Morgulis and Yu. P. Korchevoi</u> (T)	853	1146

Available From Amer Inst of Phys
Sov Phys - Tekh Phys
Vol VIII, No 9

INDEX TO AUTHORS

This index does not include authors listed in the cover-to-cover tables of contents.

- A -

Abakeliya, M. S.	25
Abarenkov, I. V.	38
Abdullayev, I. K.	14
Ackermann, Helmuth	23
Adda, Y.	31
Adomic, F.	13
Afanas'yev, V. P.	14
Agadzhanian, N. A.	17
Al-Kirfa'i, Ahmad	8
Almajeanu, Sergiu	4
al Malik, Anwar abd	8
Almazov, Ye.	2
Altemuller, H. J.	12
Alysbayev, D.	2
Anastasijevic, Radmilo, P.	20
Anichkov, N. N.	16
Aniskovich, A.	2
Ariya, S. M.	30
Ar'yev, T. Ya.	15
Athavale, G. T.	23
Aubouin, G.	35
Auriol, A.	29
Avakyan, V. M.	15
Avramov, L.	13
Avramov, Todor	3
Azizova, O. A.	14

- B -

Baader, W.	13
Babamov, L.	13
Babul, Wiktor	29
Bai, A. S.	36
Bakuto, J. A.	27
Balavadze, B. K.	24
Bangert, Fritz	40
Barabashev, N. P.	25
Baraboy, V. A.	14
Baranov, P.	12
Barat, A.	39
Barein, K.	32
Bariatti, Raimondo	18
Barinov, N.	11
Barlai, Rudolf	4
Barz, E.	28
Bass-Shadkhan, Kh. F.	16

Bata, Geza	29
Batistic, Frano	4
Baumann, Egon	30
Baumgarten, P.	17
Bautz, W.	28
Becarevic, A.	41
Becker, S. E.	31
Behringer, F. A.	33
Belic, J.	21
Bellion, B.	24, 35
Belloc, G.	17
Bel'skaya, N. N.	25
Belya, K. K.	27
Belykh, S. Ya.	25
Benedetti, Jean	6
Benoist, P.	39
Benyaminovich, M. B.	39
Berg, S.	28
Bergol'ts, V. M.	16
Berlinskiy, B. I.	38
Bernacki, H.	13
Bernheim	17
Bernstein, H. H.	42
Berroth, A.	40
Bethge, H.	40
Betto, P.	24
Bezgin, L. S.	37
Bezhayev, M. M.	25
Bielunska, S.	20
Biezborodow, M. A.	33
Bila, Klara	17
Bizin, Yu. P.	17
Blass, Bronishaw	4
Blazzkowska, Zofia	24
Blennemann, D.	34
Bliznakov, G.	22
Bobneva, M. I.	16
Bochkova, O. P.	38
Bockenhoff, J.	32
Bogel, K.	17
Bolliet, R.	39
Boiotin, V. V.	37
Boreli, Mladen	29
Borges, Synesio	
Oliveira	20
Born, Artur	26
Born, Franz	42
Bousquet, C.	39
Boyarkov, F. I.	1

Boykov, G. P.	38
Bozhovich, L. L.	42
Brandberg, Rudolf	21
Braslavskiy, A. P.	22
Brauner, J.	31
Bredereck, H.	22
Brein, R.	26
Brockelmann, C.H.J.	18
Brodin, A. G.	28
Bruck, Stevan	29
Bruck, Stevan	29
Bruzs, B.	40
Buchi, G.	24, 35
Budyko, M. I.	22
Bunina, T. L.	16
Buresheva, Ol'ga	42
Bylina, A.	19

- C -

Cankovic, J. G.	20
Cecuk, O. Z.	41
Cerric, P.	34
Chao, Han	10
Cheuvin, G.	35
Chekirda, A. T.	25
Cheremnykh, G. D.	25
Chiappa, S.	35
Chiplis, I. V.	38
Chiplis, L. V.	27
Chlebus, H.	20
Ch'oe Pong-che	9
Chong, Kwang-yong	9
Chou, Pang-hsin	30
Chu, Yong-jak	10
Colombo, A.	22
Coriou, H.	35
Cotiu, A.	34
Cvetkovic, Dobrosav	21

- D -

Damiani, L.	26
Dancoisne, P.	28
Daniels, A.	31
Dauti, Haxhi	3
David, C.	29
Davister, Pierre	6
Debruille, P.	31
Dekhovich, M. Ya.	24
de Marneffe, A.	39
Denis, E.	31
Dickens, P.	32
Didenko, B.	1

Diebler, H.	18
Dimitrijevic, R.	13
Djoric, R.	20
Dmitriyev, M.	1
Dobrev, Asen	3
Doderlein, G.	18
Dogadkin, B. A.	23
Dogramadzi, N.	41
Dol'berg, M. D.	34
Dolgov, P. N.	25
Dolgova-Korubun, V.	20
Dollfus, A.	26
Dordjevic, V.	13
Dorfman, L. A.	28
Dorodnitsyn, A. A.	38
Doroshchuk, V. E.	38
Draskovic, Rade	41
Drazic, V. G.	33, 41
Drittler, K.	40
Drude, P.	31
Dupuy, M.	31
Dushin, N. V.	37
Duto, J. G. Soepo	10
Duttreix, J.	39
Dvornikova, I. V.	37
Dybczynski, Rajmund	24
Dymnich, V. G.	28
Dziedziewicz, B. L.	12
Dzieskanowska, Danuta	18

- E -

Edelman, M.	19
Eichhorn, Heinrich	26
Eichler, O.	23
Eilender, W.	23
Eisenhuth, C.	32
Em, Hans	13
Engell, H. J.	22
Essellier, A. F.	18
Etterlin	7

- F -

Favre, Henry	40
Fechner, Bogdan	40
Federovich, M.	1
Fedoritenko, A.	38
Fedorov, A. A.	14
Fedotov, Yu.	15
Fel'dshteyn, Ya. I.	36
Feltsan, P. V.	37
Fessen, M.	7
Figielski, Tadeusz	40

Filippov, A. N.	30
Filippovich, Ye. I.	34
Fink, Walter	23
Finnila, G.	31
Fischer, Georg	28
Fischer, W.	32
Flerov, G.	34
Florescu, Mihail	33
Fontein, F. J.	32
Forch, K.	33
Franek, F.	14
Frank, D.	40
Franzen, J.	35
Freidlina, R. Kh.	34
Frelier, H.	23
Frese, H.	12
Frey-Wyssling, A.	23
Friedlander, David	8
Frieser, E.	33
Frisch, H. L.	23
Frish, S. E.	37, 38
Frohlich, H.	23
Fuks, B. B.	15

- G -

Ganev, G.	5
Gaon, J.	21
Garbulinski, T.	18
Garbuzov, V. F.	1
Gavrilova, L. N.	17
Gazdzicki, Jerzy	34
Gazenko, O. G.	15
Gazzola, Adriano	26
Gena, H.	4
Georgiades, J.	19
Gerasimova, L. I.	15
Gerd, S. V.	14
Gerenchuk, K. I.	25
Gerke, K.	26
Gerthsen, C.	40
Geyro, N. B.	30
Gibinski, K.	20
Gilg, Bernhard	40
Girardi, Francesco	35
Glembotskiy, I. I.	38
Godurov, S. K.	39
Goetzen, B.	19
Goffi, Fabio Schmidt	20
Golenetskiy, S. I.	25
Goloubinou, R.	31
Gomez-Sanches, A.	24
Gonzalez, F.	24
Gorbach, N. L.	15

Gorodetskiy, A. A.	14
Gracanin, M.	13
Grachev, Yu. N.	24
Grashchenkov, N. I.	16
Grave, N. A.	16
Gribanov, Y. I.	34
Griggs, R. C.	21
Grigorovich, V. K.	30
Grin'ko, T. F.	12
Grishayev, N. E.	16
Grosskopf, Karl	22
Grushinskiy, N. P.	25
Gunther, K. G.	23
Guttenberg, H.	17

- H -

Hansen, Peter	33
Habermann, Vlastimil	16
Hahn-Weinheimer, Paula	23
Haissinsky, M.	31
Hajdukovic, S.	21, 41
Hamsch, E.	22
Hara Genkichi	34
Harveng, I.	31
Haul, R.	34
Hauswirth, G.	32
Heitz, S.	26
Henning, H.	33
Herman, E.	19
Hesse, Gerhard	23
Heumann, T.	33
Hibner, Oskar	3
Higashi, K.	40
Higatsberger, M. J.	35
Hilbig, P.	30
Hild, W.	35
Hintenberger, H.	35
Hlavacek, Ivan	39
Ho Chae-ok	9
Ho, Ming	10
Hochmann, J.	31
Hoebel, M.	23
Hojman, J. M.	41
Holdenblat, I. I.	35
Hollman, G.	28
Holm, Axel	7
Holobut, Wieslaw	18
Holweck, F.	39
Honda, N.	13
Honegger, G. G.	23
Hong Song-ju	9
Honkasalo, T.	25
Hoss, R.	32

Hsiang, Ch'ung	9
Hubeny, Karl	26
Hubner, E.	28
Hudnik, Tamara A.	41

- I -

Idorn, G. M.	29
Iliev, Spiridon	3
Illgner, K. H.	29
Ionov, N. L.	39
Isaakyan, G.	11
Ito, Ryusho	35
Ivanov, M. M.	25
Ivanov, O. S.	22, 30
Ivanov, Yu.	30
Ivanov, Yu. N.	16
Ivashchenko, M. I.	37

- J -

Janak, J.	22
Jankovic, Z.	13
Janota-Lukaszewska, Janina	40
Jansky, L.	17
Jendykiewicz, Zenon	18
Jensen, F. C.	20
Jeremic, Mihajlo	26
Jethon, Zbigniew	19
Johansson, C. H.	40
Josifovic, M.	21
Jovan, M.	41
Jovanovic, D. S.	41
Jovanovic, M.	21
Jovic, V.	12
Junker, Karin Stensland	21
Juretic, M.	21
Jurkiewicz, J.	30
Jurkovic, Ivan	27
Jus, K.	19
Just, E.	32

- K -

Kagal'nikova, I. I.	25
Kalinowski, J. K.	40
Kalinowski, M. K.	40
Kaminir, L. B.	14
Kan, S. N.	37
Kanazir, D.	41
Kanazir, D. T.	41
Kaplunov, M. H.	1
Kartashov, V. I.	34
Karwowski, T.	13

Kasabo, Toshiyuki	24
Kasatkin, B. S.	30
Kasperek, Stanislaw	27
Katibnikov, M. A.	14
Kawecka-Duros, H.	19
Keenan, A.	8
Keirim-Markus, I. B.	14
Keiter, F.	18
Keller, W.	32
Kesner, Vjekoslav	4
Khaker, T.	12
Khakimova, D. K.	22
Khlebas, V. T.	15
Khodak, L. Z.	30
Khokhlov, M. Z.	37
Khokhlova, V.	37
Khorosheva, O. V.	36
Khrekin, I.	1
Kierczynski, Tadeusz	4
Kim, Chang-won	10
Kim, L. M.	16
Kim, Man-gum	9
Kim Sang-hak	9
Kim Yang-chun	9
Kind, A.	35
Kipper, A. Ya.	36
Kiriyama, Sigeru	24
Kirkova, E.	22
Kiselev, A. V.	3
Klement, A.	32
Klimov, D. M.	37
Klug, W.	26
Kneissl, M.	26
Koicki, Stevan D.	41
Kojima, Kuniharu	33
Kokkedee, J. J. J.	34
Kokot, E.	20
Kokoulin, P. P.	25
Kolesnikov, I. S.	16
Komochkov, M. M.	34
Konev, S. V.	14
Konig, P.	32
Konstantinova, I. V.	15
Konyushnikov, Ye. N.	34
Konytov, V. F.	1
Kornev, V. A.	25
Kosmider, S.	20
Kossler, P.	28
Kosters, F.	32
Kovacevic, P.	13
Kovalev, A. G.	42
Kovar, Zdenek	34
Kozhukhar, N. P.	15
Kozlowski, Jerzy	6
Koz'ma, A. A.	28
Krassowski, T.	19

Kremontulo, V. V.	37
Kretovich, V.	15
Krezemin'ski Jerzy	27
Kriksanov, L. Z.	28
Kriss, A. Ye.	16
Krolikowska, W.	19
Krotochwil-Skrzypkova, M.	19
Krutov, N.	27
Krzyzowska, S.	19
Kubantsev, A. P.	27
Kucera, Jaroslav	5
Kudrin, S. A.	14
Kudryavtsev, E. V.	38
Kujundzic, Branislav	29
Kula, J.	30
Kunavo, A. V.	1
Kurepa, M. G.	41
Kurtagic, M.	13
Kuster, E.	23
Kutateladze, S. S.	36
Kutiev, T.	3
Kuzmitskite, L. I.	38
Kwasieborski, Jerzy	4

- L -

Labuntsov, D. A.	37
Lacassagne, A.	39
Lacombe, Paul	35
Lainer, D. I.	36
Lambot, H.	31
Landau, L. D.	36
Lanin, A. N.	15
Lantsman, F. P.	38
Lariorev, V. A.	36
Larrson, Erik	22
Laskowski, Wolfgang	35
Le, Thanh Nghi	10
Lebedev, A. N.	24
Lebedeva, M.	16
Lebioda, J.	20
Lecoq, J. P.	33
Leike, H.	17
Lejman, K.	20
Lekhtman, F.	15
Lenin, V. I.	2
Lenz, F.	40
Lesz, Mieczyslaw	4
Leymonie, Claude	35
Leytef, F. L.	15
Lieberman, Yu. M.	25
Lieser, K. H.	35
Lipinski, Stanislaw	18
Lipovac, Stanislava	33
Lipovskiy, D. Ye.	37
Lippmann, H.	31
Litvinov, M. A.	16
Litvin-Sedoy, M. Z.	37
Livescu, Jean	6
Livshits, B. A.	30
Longinotti, L.	24
Lopatnikov, L.	1
Lovric, T.	12
Lozano, L.	27
Lubanska-Tomaszewska, Leokadia	18
Lubieniecka-Schelhorn, M.	23
Lucchesi, A.	23
Ludwig, G.	28
Lukacs, Georg	7
Lukashevich, I. P.	33
Lur'ye, A. I.	37
Lyustikh, Ye. N.	24

- M -

Maatz, P.	2
Maerker, Rudolf	40
Magnanini, G.	24
Magnuski, Janusz	5
Mahdalik, M.	33
Mahr, Hermann	27
Mahrenholtz, O.	31
Maku, T.	32
Malcic, Stjepan	41
Malinowski, Z.	19
Malofiejew, Michal	18
Malyarchuk, V. S.	2
Mannchen, Walter	40
Marcus, Joel	8
Marincek, B.	32
Marinov, Stamen	5
Marte, Gert	39
Martin, R.	28
Mas, Gustavo	11
Mathieu, F.	31
Matousek, L.	22
Matsnev, D. V.	16
Matuka, S.	20
Mayer, E.	21
Mayer, H.	32
Mazurova, Aleksandra	18
Mazyrin, I. V.	1
Mchedlishvili, G.	18
Medovar, B. I.	1
Medyakov, V. K.	2
Mercier, A.	31
Meshalkin, Ye. N.	15
Mesnager, A.	39
Mesnager, Augustin	39
Nestre, E.	34
Meuree, R.	26
Meyr, Rudolf	23
Michalik, T.	19
Mikhaylov, Dobri	3
Mikhlin, E. Ya.	34
Milash, N.	1
Miljkovic, N.	13
Minkov, Minko, P.	6
Mironov, S. V.	34
Misharina, L. A.	25
Mizushina, Tokuro	35
Mocic, M.	20
Moinil, P.	34

Molchanov, A. A.	12
Montenegro, P. R.	13
Morelli, C.	27
Morelli, Carlo	26
Morilleau, E.	27
Moskalev, Yu. I.	14
Mrozikiewicz,	
Aleksander	18
Muchnik, G. F.	36
Muge, S. G.	15
Muhlethaler, K.	23
Muller, F.	31
Muller, K.	31
Muller, Ludwig	4
Murazyan, R. I.	15
Myasishev, V. N.	42
Mysliwski, A.	19

- N -

Nacken, M.	31
Nadubovich, Yu. A.	36
Nagibina, I. M.	37
Nakhapetov, B. O.	36
Nakhmanovich, A. L.	12
Nakhodnova, A. P.	30
Napalov, A. V.	16
Nasilowski, Jan	27
Natski, V. G.	15
Neigebauer, V.	13
Nekrasevic, J. G.	27
Nemoda, S.	41
Nenocetti, G. F.	23
Nesmayanov, A. N.	34
Nezlin, R. S.	14
Nicks, R.	35
Niewiadomski, T.	30
Nijboer, B.R.A.	34
Nikitin, A. A.	38
Nikitin, D. I.	15
Nikitin, Ye.	1
Nikolayenko, N. A.	35
Nikolayev, M. N.	34
Nikolic, D.	13
Nikol'skaya, A. V.	3
Nikol'skiy, A. P.	36
Nikov, V.	21
Ninkov, V.	21
No, Chu-hyok	9
Nokikov, V. V.	28
Nosko, P.	11
Noven, H.	40
Novikov, M.	16
Novoselov, Ye. S.	2
Nowak, Andrzej	18

Nozdreva, V. F.	35
Nozhenko, A. A.	16
Nurmukhametov, R. N.	37

- O -

Obracevic, C.	21
Odermatt, H.	27
Olczak, J.	33
Ol'shannikova, A. Ye.	42
Orlov, A. P.	39
Ostrovskiy, M. A.	14
Otten, H.	31

- P -

Paeper, Herbert	4
Pagachova, A.	22
Pajetta, Giancarlo	7
Pak, Sang-tong	9
Panasenko, G. D.	24
Panchenko, A. N.	1
Panic, J.	26
Panitskiy, V.	16
Papier, J.	31
Parin, V. V.	16
Park, Yong Song	9
Pastuska, G.	22
Patolichiev, N. S.	11
Paton, Ye. O.	1
Pauly, Jules	35
Pavlov, G.	28
Pavlov, I. P.	15
Pawlowski, A.	20
Paykin, D. M.	1
Penev, Penko At.	3
Persic, Nikola	17
Peter, O.	39
Peter, Rozsa	34
Peterburgskiy, A. V.	12
Petkovic, Milica Z.	41
Petrashen', M. I.	38
Petrenko, A. J.	25
Petrenko, O. I.	41
Petri, H.	33
Petrov, L. V.	24
Petrovic, Aleksandar	13
Petrovic, Nikola	41
Petrovich, I. K.	10
Petzow, G.	33
Pfau, A.	27
Pfleger, Josef	6
Piaget, J.	17
Pikel'ner, S. B.	35
Piskunov, A. K.	37

Shchennikov, G. S.	12	Stosic, Lj.	41
Shchirovskiy, Yu.	2	Strashnov, V. I.	14
Shchukin, M. R.	42	Strel'tsov, V. A.	2
Shevareva, T.	16	Strotskite, T. D.	38
Shevera, V. S.	37	Struminskiy, V. V.	38
Shif, Zev	8	Subbotin, M. I.	37
Shimanskaya, N. S.	38	Subotic, Nevenka	5
Shimizu, C.	40	Suchodski, W.	35
Shitsman, M. E.	38	Suginoto, Masakatsu	40
Shkadov, V. Ya.	37	Sukachev, V. N.	14
Shokolay, A.	22	Sukhoivanenko, P. Ye.	36
Shorygina, N. N.	30	Sumilo, G.	1
Shunakov, N. V.	38	Szczudrawa, J.	19
Shuntov, V.	17	Szymendera, J.	19
Shuvatov, L. P.	14		
Siffre, Michel	25	- T -	
Sikorowa, L.	19		
Simic, M.	20, 41	Takac, S.	29
Simon, Antal	12	Takahashi, A.	24
Simonic, Josko	12	Takahashi, T.	35
Simovic, B.	13	Takano, Yuichi	10
Sinitsyn, I. N.	37	Tancher, V. K.	3
Sjam, Sjaiful Anwar	10	T'ang, Li-min	39
Skade, Rigmor	7	Tarlowska, L.	19
Skobeltsyn, D. V.	35	Tasic, J.	6
Skorski, Roman	29, 40	Tawile, Maurice	8
Skrjabin, K. I.	14	Teletov, S. G.	28
Slama-Cazacu, Tatiana	42	Teodorescu, Marius	4
Slavov, Ts.	3	Terzin, A. L.	20
Slunovskiy, E. G.	30	Tesar, V.	39
Smirnov, A.	15	Tesic, Z.	21
Smith, Bengt	22	Theisen, R.	33
Snoeck, J.	17	Thiel, M. K.	22
Sokolik, A. S.	22	Thiet, Hung	10
Soljan, T.	20	Thum, A.	28
Solomatina, E. K.	36	Timma, E.	37
Solonin, S. V.	25	Tkachenko, F. A.	14
Son, Kyengju	9	Tkachev, A. G.	28
Song, Hao	10	Todarovic, M.	13
Sonokana, Konomo	29	Todorovic, M.	29
Sorokin, V. A.	24	Toenes, W.	18
Spalva, Ye. A.	15	Tokunaga, Y.	33
Spivak, V.	2	Tolstoguzov, V. B.	30
Stahl, Egon	23, 39	Tontegode, A. Ya.	39
Staknkovic, Ivan,	21	Topor, Gheorghe	4
Stanyukovich, K. P.	36	Torin, V. S.	12
Starkov, G. V.	36	Toshinskiy, I. I.	16
Starovskiy, V.	1	Tournier, R.	35
Stefanov, S. B.	15	Tran, Dung Tien	9
Steklov, V. A.	33	Tribalto, Giuseppe	26
Stepan'yants, S. D.	17	Trinks, H.	22
Steshenko, N.	37	Trubelja, F.	26
Stevancevic, D. B.	33	Tsonkov, Geno	5
Stejanovic, D.	21	Tsvang, R. L.	16
Stojkovic, L.	13	Tvaltvadze, G. K.	24

- U -

Ugarov, A.	16
Ugi, Ivar	23
Uglov, F. G.	16
Ulicevic, M.	13
Ulrich, M.	32
Ul'rikh, N. N.	34
Ul'yanov-Lenin, V. I.	42
Usenko, Ye. T.	11
Ushpalis, K. K.	27, 38
Usol'tsev, I. F.	28

- V -

Valid, R.	12
Varsanyi, Ivan	4
Vartanov, S. P.	25
Veksler, V. I.	39
Veller, A. E.	36
Vendik, O. G.	34
Verkhovskiy, B. S.	15
Vernov, S. N.	12
Veyssie, J. J.	35
Vikulina, Z. A.	22
Vinnikov, Ya. A.	15
Vinogradov, V.	3
Virgil'yev, Yu. S.	22
Vizbarsite, Ya. I.	38
Volianik, N.	31
Volkov, V. M.	15
Voncina, A.	21
von Senger, Ferdinand	7
von Weizsacker, C. F.	26
von Zborowsky,	
H.P.G.A.R.	28
Voskoboynikov, M. I.	27
Vukovic, Milan	29

- W -

Wagener, K.	35
Wagner, K. W.	27
Wang, Chao-wen	10
Wawrzyniak, M.	19
Weinfurtner, F.	23
Welte, E.	17
Wertheim, M. G.	39
Wideland, Bror	27
Widl, E.	27
Wiederhold, Wilhelm	29
Wiegand, H.	29
Wilmanns, W.	23
Wippermann, F.	26, 40
Wiszniewski, K.	30

Worm, J.	40
Wozniak, L.	20

- Y -

Yamaguchi, Y.	18
Yanishevskiy, F. V.	16
Yanoukh, R.	38
Yasui, Koaru	10
Yatsentkovskiy, G. L.	25
Yelistratov, M. R.	27
Yermolayev, V. R.	16
Yershov, N. F.	38
Yesin, A.	1
Yi, Ch'ang-ho	9
Yordanov, Petko	5
Yu, Pyong-nyon	9
Yudin, Ye.	15
Yusufova, V. D.	38
Yutkevich, Sergey	3
Yutsis, A. P.	38

- Z -

Zaccara, Gaetano	26
Zagarscu, Fl.	12
Zakharenko, N. V.	23
Zakharov, P.	1
Zakharov, Yu. G.	16
Zaleski, M.	19
Zalesov, V. S.	18
Zamechnik, Stanislaw	5
Zamyatin, V.	2
Zankov, L. V.	41
Zapsochnyy, I. P.	37
Zarzycki, J.	19
Zav'yalov, N.	1
Zawistowska, H.	19
Zawistowski, S.	19
Zebrowski, Adam	4
Zenkevich, B. A.	36
Zens, R.	28
Zhadin, V. I.	14, 17
Zhdanov, L. A.	25
Zhivukhin, S. M.	30
Zhurbitskiy, Z. I.	12
Ziemlanski, Swiatoslaw	18
Zivkovic, B.	20
Zizka, E.	27
Zlotnicki, Boleslaw	18
Zmbov, Kiro f.	41
Zonn, Wlodzimierz	24
Zvonarev, A. V.	34

* * *

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

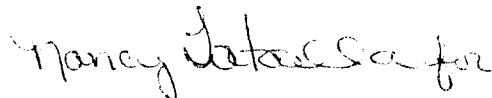
In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,



Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)



Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0834364	78-03109A	52	1	6	62	Consolidated Translation Survey For February 1963	2/1/1963	232	Approved For Release	3/25/2004
AD0402915	78-03109A	52	1	7	63	Consolidated Translation Survey For March 1963	3/1/1963	314	Approved For Release	3/25/2004
AD0405169	78-03109A	52	1	8	64	Consolidated Translation Survey For April 1963	4/1/1963	278	Approved For Release	3/25/2004
AD0409473	78-03109A	52	1	9	65	Consolidated Translation Survey For May 1963	5/1/1963	358	Approved For Release	3/25/2004
AD0413153	78-03109A	53	1	1	66	Consolidated Translation Survey For June 1963	6/1/1963	361	Approved For Release	3/25/2004
AD0414818	78-03109A	53	1	2	67	Consolidated Translation Survey For July 1963	7/1/1963	249	Approved For Release	3/25/2004
AD0418328	78-03109A	53	1	3	68	Consolidated Translation Survey For August 1963	8/1/1963	324	Approved For Release	3/25/2004
AD0834365	78-03109A	53	1	4	69	Consolidated Translation Survey For September 1963	9/1/1963	193	Approved For Release	3/25/2004
AD0423936	78-03109A	53	1	5	70	Consolidated Translation Survey For October 1963	10/1/1963	232	Approved For Release	3/25/2004
AD0426736	78-03109A	53	1	6	71	Consolidated Translation Survey For November 1963	11/1/1963	298	Approved For Release	3/25/2004
AD0428566	78-03109A	53	1	7	72	Consolidated Translation Survey For December 1963	12/1/1963	298	Approved For Release	3/25/2004
AD0431011	78-03109A	53	1	8	73	Consolidated Translation Survey For January 1964	1/1/1964	273	Approved For Release	3/25/2004
AD0433215	78-03109A	53	1	9	74	Consolidated Translation Survey For February 1964	2/1/1964	200	Approved For Release	3/25/2004
AD0437984	78-03109A	54	1	1	75	Consolidated Translation Survey For March 1964	3/1/1964	305	Approved For Release	3/25/2004
AD0440831	78-03109A	54	1	2	76	Consolidated Translation Survey For April 1964	4/1/1964	155	Approved For Release	3/25/2004
AD0442174	78-03109A	54	1	3	77	Consolidated Translation Survey For May 1964	5/1/1964	249	Approved For Release	3/25/2004
AD0443106	78-03109A	54	1	4	78	Consolidated Translation Survey For June 1964	6/1/1964	191	Approved For Release	3/25/2004
AD0444756	78-03109A	54	1	5	79	Consolidated Translation Survey For July 1964	7/1/1964	169	Approved For Release	3/25/2004
AD0447557	78-03109A	54	1	6	80	Consolidated Translation Survey For August 1964	8/1/1964	153	Approved For Release	3/25/2004
AD0450482	78-03109A	54	1	7	81	Consolidated Translation Survey For September 1964	9/1/1964	141	Approved For Release	3/25/2004
AD0451428	78-03109A	54	1	8	82	Consolidated Translation Survey For October 1964	10/1/1964	149	Approved For Release	3/25/2004
AD0453181	78-03109A	54	1	9	83	Consolidated Translation Survey For November 1964	11/1/1964	157	Approved For Release	3/25/2004
AD0455133	78-03109A	54	1	10	84	Consolidated Translation Survey For December 1964	12/1/1964	121	Approved For Release	3/25/2004
AD0456859	78-03109A	54	1	11	85	Consolidated Translation Survey For January 1965	1/1/1965	179	Approved For Release	3/25/2004
AD0458780	78-03109A	54	1	12	86	Consolidated Translation Survey For February 1965	2/1/1965	161	Approved For Release	3/25/2004
AD0461501	78-03109A	55	1	1	87	Consolidated Translation Survey For March 1965	3/1/1965	301	Approved For Release	3/25/2004