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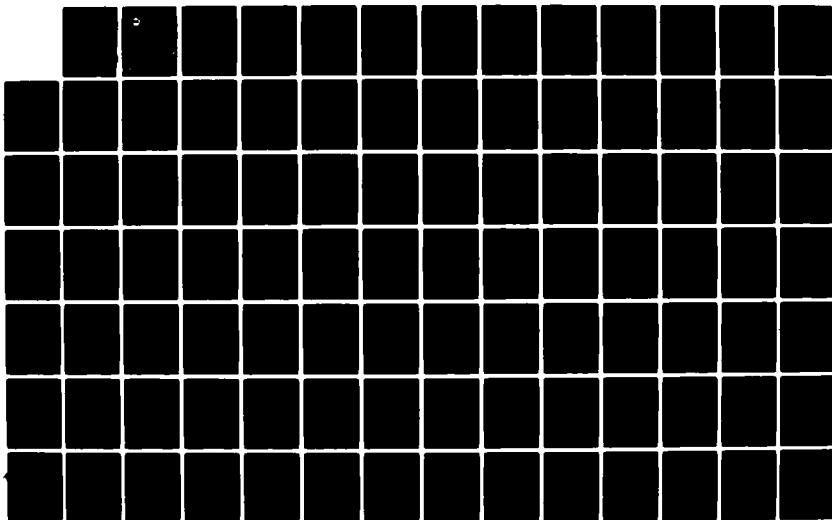
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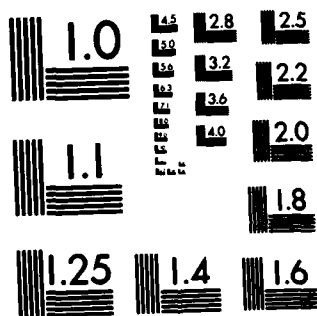
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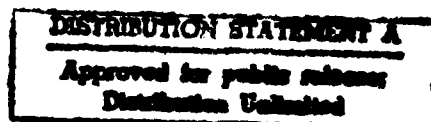
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BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 53

MAY - JUNE 1981

Date of Report

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20. ABSTRACT This is the Soviet Laser Bibliography for May-June 1981, and is No. 53 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; crystal growing; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics		

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Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is May-June 1981, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.



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H. LASER MEASUREMENT APPLICATIONS

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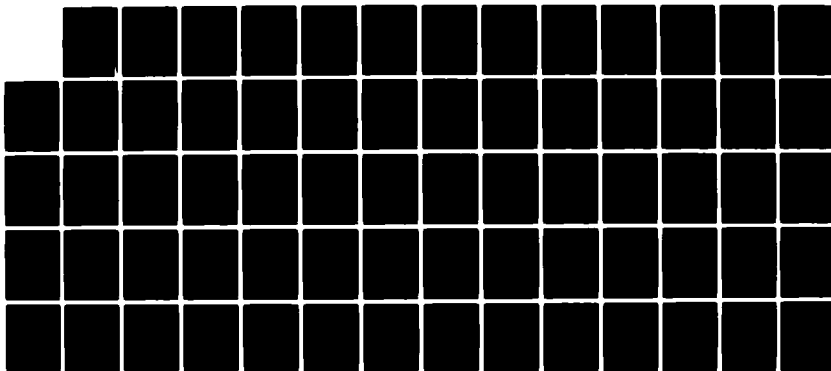
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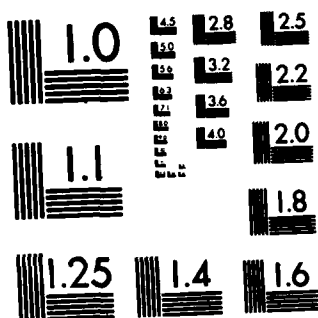
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IV. SOURCE ABBREVIATIONS

(CIRC Codens)

APP	(ATPLB)	Acta physica polonica
CCF	(CKCFA)	Ceskoslovensky casopis pro fysiku
DAN Az	(DAZRA)	Akademiya nauk Azerbaydzhanskoy SSR. Doklady
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
EOM	(EOBMA)	Elektronnaya obrabotka materialov
ETP	(EXPPA)	Experimentelle Technik der Physik
FGiV	(FGVZA)	Fizika gorenija i vzryva
FikHOM	(FKOMA)	Fizika i khimiya obrabotka materialov
FikHS	(FKSTD)	Fizika i khimiya stekla
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN B	(VABFA)	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya
IAN Kirg	(INKSA)	Akademiya nauk Kirgizskoy SSR. Izvestiya
IAN Turk	(ITUFA)	Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk
I-FZh	(INFZA)	Inzhenerno-fizicheskij zhurnal
ISOAN	(IZSTA)	Akademiya nauk SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Fiz	(IVUFA)	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelektr (IVUZB)		Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika

IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
JMO	(JMKOA)	Jemna mehanika a optika
KE	(KVEKA)	Kvanotovaya elektronika
KhVE	(KHVKA)	Khimiya vysokikh energiy
KiK	(KNKTA)	Kinetika i kataliz
KL	(KNLTA)	Knizhnaya letopis'
Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
Lit fiz sb	(LFSBA)	Litovskiy fizicheskiy sbornik
MZhiG	(IMZGA)	Akademiya nauk SSSR. Izvestiya. Mekhaniki zhidkosti i gaza
NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OiS	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	(OIPOV)	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
PSS	(PSSAB) (PSSBB)	Physica Status Solidi (A). Applied Research (B). Basic Research
PSU	(PRSUB)	Pribory i sistemy upravleniya
RAWZMuM	(-----)	Reporte der Akademie der Wissenschaften der DDR. Zentralinstitut für Mathematik und Mechanik
RiE	(RAELA)	Radiotekhnika i elektronika
RRP	(RRPZA)	Revue roumaine de physique
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeofiz	(GZGFA)	Referativnyy zhurnal. Geofizika
RZhMekh	(RZMKA)	Referativnyy zhurnal. Mekhanika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
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TiEKh	(TEKHA)	Teoreticheskaya i eksperimental'naya khimiya
TiOP	(TEOPA)	Tekhnologiya i organizatsiya proizvodstva
TKiT	(TKTEA)	Tekhnika kino i televedeniya
Tr1	Trudy	Radiotekhnicheskii institut AN SSSR. Trudy, no. 40, Moskva, 1980
Tr2		Moskovskiy energiticheskii institut. Trudy, no. 463, 1980.
Tr3		Moskovskiy energeticheskii institut. Trudy, no. 494, 1980.
Tr4		Institut eksperimental'noy meteorologii. Trudy, no. 26(99), 1981.
Tr5		Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 153, 1981.
Tr6		Moskovskiy energeticheskii institut. Trudy, no. 495, 1980.
Tr7		Vsesoyuznyy NI kinofotoinstitut. Trudy, no. 102, 1980.
Tr8		Gos NI i proyektnyy institut redkometallicheskoj promyshlennosti. Nauchnyye trudy, no. 103, 1980.
TVT	(TVTYA)	Teplofizika vysokikh temperatur
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskii zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Fizika, astronomiya
ZhETF	(ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	(ZFPA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhFKh	(ZFKHA)	Zhurnal fizicheskoy khimii
ZhNiPFiK	(ZNPFA)	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF	(ZPMFA)	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	(ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF	(ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P	(PZTFD)	Pis'ma v Zhurnal tekhnicheskoy fiziki
ZhVMMF	(ZVMFA)	Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki

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396. "Optika" Special Design Bureau for Scientific Instrument Manufacture, Siberian Branch, AN SSSR (Spetsial'noye konstruktorskoye byuro nauchnogo priborostroyeniya "Optika" SOAN).
401. Khabarovsk Polytechnic Institute (Khabarovskiy politekhnicheskiy institut).
411. Krasnoyarsk State University (Krasnoyarskiy GU).
412. Central Design Bureau for Information Engineering, Vinnitsa (Tsentral'noye konstruktorskoye byuro informatsionnoy tekhniki).
417. All Union Scientific Research Institute of Eye Diseases (VNII glaznykh bolezney).
421. Institute of Physics of Metals, Ural Scientific Center, AN SSSR, Sverdlovsk (Institut fiziki metallov Ural'skogo nauchnogo tsentra AN SSSR).
426. Institute of Applied Physics, AN SSSR, Gor'kiy (Institut prikladnoy fiziki AN SSSR).
435. Simferopol State University (Simferopol'skiy GU).
440. Moscow Automobile Plant im Likhachev (Moskovskiy avtomobil'nyy zavod im Likhacheva).
445. All Union Scientific Research Institute of the Metrological Service, Moscow (VNII metrologicheskoy sluzhby).
451. All Union Correspondence Institute of the Textile and Light Industry, Moscow (Vsesoyuznyy zaochnyy institut tekstil'noy i legkoy promyshlennosti).
466. Institute of High-Current Electronics, Siberian Branch, AN SSSR, Tomsk (Institut sil'notochnoy elektroniki SOAN).
475. Leningrad Institute of Textile and Light Industry im Kirov (Leningradskiy institut tekstil'noy i legkoy promyshlennosti im Kirova).
484. Buryat Institute of Natural Sciences, Buryat Branch of the Siberian Branch, AN SSSR (Buryatskiy institut yestestvennykh nauk Buryatskogo filiala SOAN).
485. Institute of Nuclear Research, AN SSSR, Moscow (Institut yadernykh issledovaniy AN SSSR).
490. Institute of Physics, AN GruzSSR (Institut fiziki AN GruzSSR).
492. Institute of Physics, AN EstSSR (Institut fiziki AN EstSSR).

506. Institute of Physics AN LitSSR (Institut fiziki AN LitSSR).
511. Institute of Applied Problems in Mechanics and Mathematics, AN UkrSSR, L'vov (Institut prikladnykh problem mekhaniki i matematiki AN UkrSSR).
535. Kemerov State University (Kemerovskiy GU).
539. Department of Thermal Physics, AN UzSSR (Otdel teplofiziki AN UzSSR).
542. State Scientific Research Institute of Quartz Glass, Leningrad (Gos NII kvartsovogo stekla).
555. Dnepropetrovsk Mining Institute im Artem (Dnepropetrovskiy gornyy institut im Artema).
556. All Union Cardiologial Science Center, AMN SSSR, Moscow (Vsesoyuznyy kardiologicheskiy nauchnyy tsentr AMN SSSR).
565. Institute of Theoretical and Experimental Physics, Moscow (Institut teoreticheskoy i eksperimental'noy fiziki).
569. All Union Scientific Research Institute of Reagents and High-Purity Substances (VNII reaktivov i osobo chistyykh veshchestv).
578. Institute of Automation and Control Processes, Far Eastern Science Center, AN SSSR (Institut avtomatiki i protsessov upravleniya Dal'novostochnogo tsentra AN SSSR).
579. Scientific Research Institute of High Voltages at Tomsk Polytechnic Institute (NII vysokikh napryazheniy pri Tomskom politekhnicheskom institute).
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598. Kuybyshev State University (Kuybyshevskiy GU).
617. Altaic Polytechnic Institute im Polzunov, Barnaul (Altayskiy politekhnicheskiy institut im Polzunova).
618. Institute of the Chemistry and Technology of Rare-Earth Elements and Mineral Resources, Kola Branch, AN SSSR, Apatity (Institut khimii i tekhnologii redkikh elementov i mineral'nogo syr'ya Kol'skogo filiala AN SSSR).
619. All Union Correspondence Polytechnic Institute, Moscow (Vsesoyuznyy zaachnyy politekhnicheskiy institut).
620. Institute of Transplantation and Artificial Organs, Moscow (Institut transplantologii i iskusstvennykh organov).
621. Yelets State Pedagogical Institute (Yeletskiy gos pedagogicheskiy institut).
622. Izhevsk Mechanical Engineering Institute (Izhevskiy mekhanicheskiy institut).
623. Novorossiysk Higher Nautical Engineering School (Novorossiyskoye vyssheye inzhenerno-morskoye uchilishche).
624. Scientific Research Institute of Construction Physics (NII stroitel'noy fiziki).

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SHVETS V F	125	SOLOMAKHA D A	86	SUMICHRAST L	30
SHVEYKIN V I	5	SOLOMATIN S A	78	SURAN V V	81
SIDOROV V A	2	SOLOUKHIN R I	20	SURDUTOVICH G I	13
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SILAYEVA N B	10	SOLOV'YEV I A	121	SUSOV A M	2
SILIN V P	125	SOMS L N	1	SUYNOV S KH	72, 78
SILINA T V	89	SOROKA A M	25	SUYNOV V KH	72
SIMONOV B M	9	SOROKIN O M	29	SVECHNIKOV M B	122
SIMONOV N A	93	SOROKIN YU M	64	SVENDLOV B N	6
SINAYSKIY N A	21, 83	SOSKIN M S	42, 78	SVIRIDOV V A	93
SINITSA L N	115	SOSNIN A V	56	SVIRKO YU P	35
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SIVACHENKO S D	6	STANCIU G A	101	TABARIN V A	31
SIZOVA I M	64	STANCIU I	32	TABIRYAN N V	108
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SKOBELKIN V I	9	STARIK A M	19	TAGIYEVA M M	122
SKOK E M	120	STARIK A N	16	TAMOYKIN V V	33
SKORBUN S D	4	STARKE M	77	TANTSUYRA L YA	76
SKREBOV V N	101	STARODUB M D	46	TARASENKO V F	12, 20
SKRINSKIY A N	48	STARODUMOV YU I	26	TARASEVICH A P	116
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SKRIPNICHENKO A S	18	STASENKO A L	18	TARBEEV YU V	101
SKVORTSOV V V	88	STAUPENDAHL C	86	TARTAKOVSKIY G KH	34
SLESAREV A G	57, 64	STEFANOV S R	102	TELALAYEV M A	27
SLOBODYANYUK A V	117	STEFANOV V I	8	TELEGANOV A A	59
SLUTSKIY L M	66	STEGMANN R	111	TEL'NIKHIN A A	58
SMAKOVSKIY YU B	20	STEIGER TH	119	TEMCHENKO V S	56
SMEKHOV G D	19	STEJSKAL A	99	TER-MIKAYELIAN M L	45
SMIRNOV B M	108	STEL'MAKH G F	120	TEREKHOV A S	104
SMIRNOV G I	89	STEL'MAKH O M	82	TEREKHOV V I	89
SMIRNOV M G	88	STENCHIKOV G L	125	TETERIN V A	75
SMIRNOV V A	6, 10, 110	STEPANOV A A	22, 23	TETERIS YA	107
SMIRNOV V B	54	STEPANOV A I	1	TEUCHNER K	84
SMIRNOV V G	36	STEPANOV B M	101, 131	TEVZADZE G A	80
SMIRNOV V I	99, 101	STEPANOV S I	77	TIKHOMIROV A A	64
SMIRNOV V L	54, 71, 72	STOL'NITS M M	24, 86	TIKHONOV YE A	44
SMIRNOV V N	119	STOLOVICH M N	66	TIMOFEYEV A S	101
SMIRNOV V S	41	STOYANOV A K	72	TIMOFEYEV O P	88
SMIRNOV V V	78, 130	STOYLOV YU YU	9	TIMOFEYEV V P	34
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SMOLENSKIY G A	37	STREL'CHENKO S S	5	TITOV V N	98
SMULAKOVSKIY V M	85	STREL'TSOV A P	20	TIUMOV YU A	110
SNOPKO V N	29	STRIGALEV V YE	56	TKESHELASHVILI G I	80
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TOLOKONNIKOV I A	102	USATYY A N	4	VODOP'YANOV L K	113,117
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TOLSTOROZHEV G B	10	USHAKOV G V	57,65	VOLCHKOV E P	89
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TOMASHEVSKIY YU F	83,86	USKOV A V	7	VOLKOV S A	99
TOMIN V I	97	USHANOV R G	1,45,111	VOLKOV V I	40
TOMSONS YA YA	89,102	USMANOV T	7	VOLKOV YE G	90
TOMULESCU R	102	USPENSKIY A B	124	VOLKOVA N V	125
TONKOV M V	133	UTAROVA T M	37	VOLKOVITSKIY O A	20,65
TOROPOV A K	86	UTKIN G I	32	VOLLE V M	112
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TROKHAN A M	102	VASILYAK L M	16	VOSTRIKOV A A	14
TROSHIN A S	37	VASIL'YEV A V	56	VOSTRIKOV A A	35
TRSAN N	28	VASIL'YEV B I	16	VYSKUBENKO B A	19
TRUDACHEYEV E A	84	VASIL'YEV M V	78	VYSLOUKH V A	45
TRUBETSKOY A V	33	VASSILEV YA T	111	V'YUKHIN V N	73
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TSVIRKO M P	120	VDOVIN YU A	11	YAGMUROV V KH	2
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TSYBENKO S P	128	VEDERNIKOV V M	73	YAKOVENKO A A	94
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