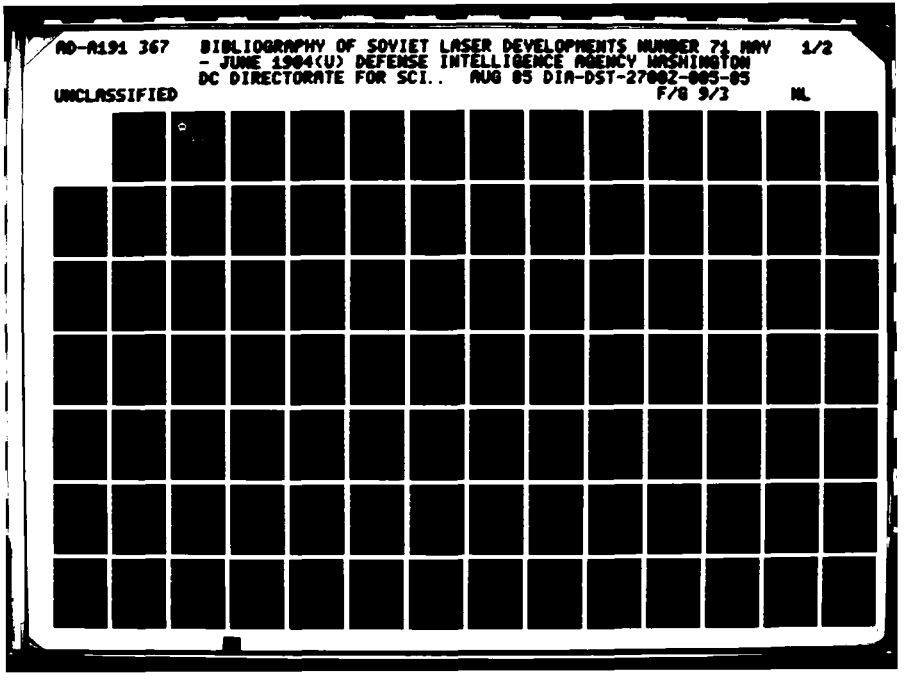
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20. ABSTRACT

This is the Soviet Laser Bibliography for May-June 1984, and is No. 71 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; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; adaptive optics; 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 1984, 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 Soviet Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry 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.

We are now producing the entire bibliography on computer. To make our bibliography compatible with other data bases, we have converted the source abbreviations from our previous practice of those used in the Soviet Union to the letter codens generally used in our own government. Likewise, we have converted the affiliations designations from numbers to letter codens. The authors' affiliations are indicated in parentheses after the authors' names in the text. Empty parentheses indicate the affiliation was not given. A source abbreviations list, authors' affiliations list, and author index are included in the back of the bibliography.

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IV. SOURCE ABBREVIATIONS

(Note: CTC = cover-to-cover translation available)

ABFZA	Analele Universitatii Bucuresti. Fizica
AKZHA	Akusticheskiy zhurnal (CTC)
APYCA	Acta physica et chemica. Szeged
ATPLB	Acta physica polonica. Series A
AVMEB	Avtometriya (CTC)
BWATA	Biuletyn Wojskowej akademii technicznej imeni Jaroslawa Dabrowskiego
CMNTKVIP	Mezhotraslevaya nauchno-tekhnicheskaya konferentsiya: Vzaimodeystviye izlucheniya plazmennykh i elektronnykh potokov s veshchestvom
CRNTShSL	Respublikanskaya nauchno-tekhnicheskaya shkola-seminar: Lazernoye opticheskoye i spektral'noye priborostroyeniye
CVKBNFPr	Vsesoyuznaya konferentsiya: Besserebryanyye i neobychnyye fotograficheskiye protsessy
CVKOLaze	Vsesoyuznaya konferentsiya: Optika lazerov
CVShSRMS	Vsesoyuznaya shkola-simpozium po rasprostraneniyu millimetrovykh i submillimetrovykh voln v atmosfere
CVSNMPSO	Vsesoyuznyy seminar: Nitridy: metody polucheniya, svoystva i oblasti primeneniya
CVSPMIVS	Vsesoyuznyy simpozium po problemam modulyarnykh informatsionno-vychislitel'nykh sistem
CVSRVEle	Vsesoyuznyy seminar po relyativistskoy vysokochastotnoy elektronike
CVSUZCha	Vsesoyuznoye soveshchaniye po uskoritelyam zaryazhennykh chastits
DANAA	Akademiya nauk Armyanskoy SSR. Doklady
DANKA	Akademiya nauk SSSR. Doklady (CTC)
DANTA	Akademiya nauk Tadzhikskoy SSR. Doklady

DANUA	Akademiya nauk Uzbekskoy SSR. Doklady
DERUD	Deponirovannyye nauchnyye raboty (formerly: Deponirovannyye rukopisi. Bibliograficheskiy ukazatel'. Yestyesvennyye i tochnyye nauki, tekhnika)
EKNTB	Elektronika (Warsaw)
ELPBA	Elektropromishlennost i priborostroene
EOBMA	Elektronnaya obrabotka materialov (CTC)
EXPPA	Eksperimentelle Technik der Physik
FGVZA	Fizika goreniya i vzryva (CTC)
FIPLD	Fizika plazmy (Moskva, AN SSSR) (CTC)
FIZSA	Fizika v shkole
FKOMA	Fizika i khimiya obrabotki materialov
FKSTD	Fizika i khimiya stekla (CTC)
FMMTA	Fizika metallov i metallovedeniye (CTC)
FNMKA	Finomechanika, mikrotechnika (Budapest)
FTPPA	Fizika i tekhnika poluprovodnikov (CTC)
FTVTA	Fizika tverdogo tela (CTC)
GZKGA	Geodeziya i kartografiya (CTC)
HIRAA	Hiradastechnika (Budapest)
IANFA	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya (CTC)
IATOA	Akademiya nauk Tadzhikskoy SSR. Izvestiya. Otdeleniye fiziko-matematicheskikh i geologo-khimicheskikh nauk
IFAOA	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana (CTC)
IMZGA	Akademiya nauk SSSR. Izvestiya Mekhaniki zhidkostey i gazov (CTC)
IVNMA	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy (CTC)

IVUBA	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye (CTC)
IVUFA	Izvestiya vysshikh uchebnykh zavedeniy. Fizika (CTC)
IVUSA	Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye
IVUZB	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVYRA	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika (CTC)
IZNMA	Akademiya nauk SSSR. Izvestiya. Metally (CTC)
IZTEA	Izmeritel'naya tekhnika (CTC)
JMKOA	Jemna mechanika a optika
KHVKA	Khimiya vysokikh temperatur (CTC)
KNKTA	Kinetika i kataliz (CTC)
KNLTA	Knizhnaya letopis'
KRISA	Kristallografiya (CTC)
KRSFA	Kratkiye soobshcheniya po fizike (CTC)
KVEKA	Kvantovaya elektronika (journal, Moskva) (CTC)
LFSBA	Litovskiy fizicheskiy sbornik (CTC)
LZFTA	Akademiya nauk Latviyskoy SSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk
MKETA	Mikroelektronika (CTC)
MKMAD	Mekhanika kompozitnykh materialov (Riga)
MTRLB	Metrologiya
NAUZA	Nauka i zhizn'
OIPOB	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki (now in two separate journals: OTIZD and POTZD)

OPMPA	Optiko-mekhanicheskaya promyshlennost' (CTC)
OPSPA	Optika i spektroskopiya (CTC)
OTIZD	Otkrytiya, izobreteniya (formerly included in OIPOB)
POLIA	Polimery tworzywa wieloczasteczkowe
POTZD	Promyshlennyye obraztsy, tovarnyye znaki (formerly included in OIPOB)
PPCNB	Problemy prochnosti (CTC)
PRIRA	Priroda
PRTEA	Pribory i tekhnika eksperimenta (CTC)
PSSAB	Physica status solidi (A). Applied Research (GDR)
PSSBB	Physica status solidi (B). Basic Research (GDR)
PZTFD	Zhurnal tekhnicheskoy fiziki. Pis'ma (CTC)
PZTKA	Przeglad telekomunikacyjny
RAELA	Radiotekhnika i elektronika (journal, Moskva) (CTC)
RATEA	Radiotekhnika (journal, Moskva) (CTC)
RZFZA	Referativnyy zhurnal. Fizika
RZRAB	Referativnyy zhurnal. Radiotekhnika
SAKNA	Akademiya nauk Gruzinskoy SSR. Soobshcheniya
STKRA	Steklo i keramika (CTC)
SUFGA	Godishnik na Sofiiskaya universitet. Fizicheski fakultet
SVETA	Svetotekhnika
TEOPA	Tekhnologiya i organizatsiya proizvodstva
TKHMA	Tekhnika molodezhi
TKTEA	Tekhnika kino i televideniya

TVOOB	Tekhnika i vooruzheniye (CTC)
TVYTA	Teplofizika vysokikh temperatur (CTC)
UFNAA	Uspekhi fizicheskikh nauk (CTC)
UFZHA	Ukrainskiy fizicheskiy zhurnal (CTC)
USKHA	Uspekhi khimii (CTC)
VBMFA	Belorusskiy universitet. Vestnik. Seriya 1. Matematika, fizika, mekhanika
VBSFA	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
VMUFA	Moskovskiy universitet. Vestnik. fizika, astronomiya (CTC)
ZAKHA	Zhurnal analiticheskoy khimii (CTC)
ZETFA	Zhurnal eksperimental'noy i teoreticheskoy fiziki (CTC)
ZFKHA	Zhurnal fizicheskoy khimii (CTC)
ZFPRA	Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma (CTC)
ZNOKA	Zhurnal neorganicheskoy khimii (CTC)
ZNPFA	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii (CTC)
ZPMFA	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC)
ZPSBA	Zhurnal prikladnoy spektroskopii (CTC)
ZRBEA	Zarubezhnaya radioelektronika
ZTEFA	Zhurnal tekhnicheskoy fiziki (CTC)

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Azerbaydzhanskiy tekhnologicheskiy institut
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BGU
Belorusskiy gos universitet
Belorussian State University

BIYeN
Buryatskiy institut yestestvennykh nauk SOAN SSSR
Buryat Institute of Natural Sciences, Siberian Branch of the Academy of Sciences USSR

BPI
Belorusskiy politekhnicheskiy institut
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ChelTI
Chelyabinskiy technologicheskiy institut
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CherGPI
Cherpovetskiy gos pedagogicheskiy institut
Cherpovets State Pedagogical Institute

ChGU
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DGU
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FMIANUkr
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GEOKhI
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GGU
  Gor'kovskiy gos universitet
  Gor'kov State University
GOI
  Gosudarstvennyy opticheskiy institut im Vavilova
  State Optical Institute imeni Vavilov, Leningrad
GPI
  Gor'kovskiy politekhnicheskiy institut.
  Gor'kiy Polytechnical Institute.
IAE
  Institut atomnoy energii im Kurchatova
  Institute of Atomic Energy imeni Kurchatov, Moscow
IEANBel
  Institut elektroniki AN BSSR
  Institute of Electronics, Academy of Sciences
    Belorussian SSR, Minsk
IEANUz
  Institut elektroniki AN UzSSR
  Institute of Electronics, Academy of Sciences
    Uzbek SSR, Tashkent
IEM
  Institut eksperimental'noy meteorologii
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IFANAz
  Institut fiziki AN AzSSR
  Institute of Physics, Academy of Sciences
    Azerbaydzhan SSR
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  Institut fiziki AN BSSR
  Institute of Physics, Academy of Sciences
    Belorussian SSR, Minsk
IFANEst
  Institut fiziki AN EstSSR
  Institute of Physics, Academy of Sciences Estonian SSR
IFANLi
  Institut fiziki AN LitSSR
  Institute of Physics, Academy of Sciences Lithuanian SSR
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    Armenian SSR
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IFTT
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IGMANGruz
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INKh
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IOA
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IOAN
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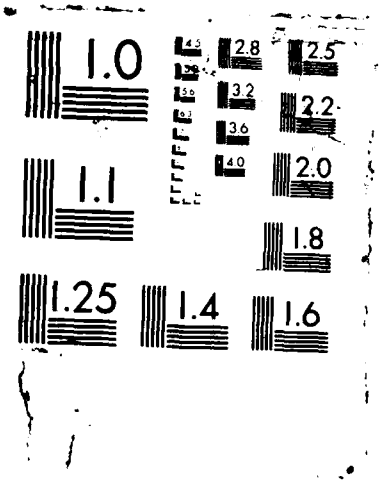
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Institut obshchey fiziki AN SSSR
Institute of General Physics, Academy of Sciences USSR, Moscow

IOKh
Institut organicheskoy khimii AN SSSR
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IPFANM
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IRE
Institut radiotekhniki i elektroniki AN SSSR
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IRFEANArm
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ISAN
Institut spektroskopii AN SSSR
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ISMSANGruz
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ITEF
Institut teoreticheskoy i eksperimental'noy fiziki
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ToPI
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  Tomsk Polytechnic Institute
TsNIIatominform
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  TsNII informatsii i tekhniko-ekonomicheskikh issledovaniy priborostroyeniya, sredstv avtomatizatsii i sistem upravleniya
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VilGU
  Vil'nyusskiy gos universitet
  Vilnius State University

Vil'nISI
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  Vilnius Civil Engineering Institute
VINITI
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  All-Union Institute of Scientific and Technical Information, Moscow
VNIFTRI
  VNII fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy
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  All-Union Scientific Research, Planning, Design and Technological Institute of Current Sources. Armenian Branch
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  VNII monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv
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  Yerevan State University

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