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20. ABSTRACT

This is the Soviet Laser Bibliography for November-December 1978 and is no. 38 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; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; 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 November-December 1978, 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 included, as well as entries from the CIRC data base not otherwise covered. 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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IV. SOURCE ABBREVIATIONS

	(CIRC Codens)	
BAPS	(BAPTA)	Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Techniques
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
DAN Ukr	(DUKAB)	Akademiya nauk Ukrayins'koyi RSR. Dopovidi. Seriya A. Fizyko-matematychni ta tekhnichni nauky
FAiO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FiKhOM	(FKOMA)	Fizika i khimiya obrabotka materialov
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
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
KE	(KVEKA)	Kvantovaya elektronika
KL	(KNLTA)	Knizhnaya letopis'
KLDV	(KLDVA)	Knizhnaya letopis'. Dopolnitel'nyy vypusk
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OiS	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'

PTE	(PRTEA)	Pribory i tekhnika eksperimenta
RiE	(RAELA)	Radiotekhnika i elektronika
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeofiz	(GZGFA)	Referativnyy zhurnal. Geofizika
RZhMekh	(RZMKA)	Referativnyy zhurnal. Mekhanika
RZhMetrolog	(RZMIB)	Referativnyy zhurnal. Metrologiya i izmeritel'naya tekhnika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	Sbornik	Vsesoyuznaya konferentsiya po gologrāfii. 3rd. Ul'yanovsk, 1978. Tezisy dokladov. Leningrad, 1978.
Sb2		Lyuminestsentsiya i tochechnyye defekty v kristallakh. Irkutsk, 1978.
Sb3		Izmeritel'nyye pribory dlya issledovaniya parametrov prizemnykh sloyev atmosfery. Tomsk, 1977.
Sb4		Vsesoyuznyy seminar po fizicheskim protsessam v gazovykh OKG. 2nd. Uzhgorod, 1978. Tezisy dokladov. Uzhgorod, 1978.
Sb5		Vsesoyuznyy simpozium po sil'notochnoy impul'snoy elektronike. 3rd. 1978. Tezisy dokladov. Tomsk, 1978.
Sb6		Nekotoryye problemy teplo- i massoobmena. Minsk, 1978.
Sb7		Impul'snaya fotometriya, no. 5, 1978.
Sb8		Dielektricheskiye materialy radioelektroniki. Moskva, 1977.
Sb9		Issledovaniya v oblasti spektroskopii i kvantovoy elektroniki. Vil'nyus, 1978.
Sb10		International Conference on Phenomena in Ionized Gases. 13th. Proceedings. Berlin, 1977.
Sb11		Vsesoyuznaya konferentsiya po rasprostraneniyu radiovoln. 12th. Tomsk, 1978. Part 2. Tezisy dokladov. Moskva, 1978.
Sb12		Vsesoyuznyy simpozium po lazernomu i akusticheskomu zondirovaniyu atmosfery. 5th. Part 2. Tezisy dokladov. Tomsk, 1978.
Sb13		Atmosfernyye aerozoli i atmosfernoye elektrichestvo. Kirov, 1977.
Sb14		Segneto-i p'yezomaterialy i ikh primeneniye. Moskva, 1978.

Sb15		Detonatsiya. Kriticheskiye yavleniya. Fiziko-khimicheskiye prevrashcheniya v udarnykh volnakh. Chernogolovka, 1978.
Sb16		Vsesoyuznaya konferentsiya po rasprostraneniyu radiovoln. 12th. Tomsk, 1978. Part 1. Tezisy dokladov. Moskva, 1978.
Sb17		Metody lazernoy dopplerovskoy diagnostiki v gidroaerodinamiki. Minsk, 1978.
Sb18		Poluprovodnikovyye pribory i elektronnaya apparatura. Voprosy elektroniki. Kishinev, 1978.
Sb19		Rasseyaniye i pogloshcheniye sveta malymi sfericheskimi chastitsami. Krasnoyarsk, 1978.
Sb20		Polucheniye i svoystva tonkikh plenok, no. 5, Kiyev, 1978.
Tr	Trudy	Moskovskiy energeticheskiy institut. Trudy, no. 350, 1978.
Tr2		Trudy uchebnykh institutov svyazi. Seti i kanaly svyazi i raspredeleniye informatsii. Leningrad, 1978.
Tr3		Institut eksperimental'noy meteorologii. Trudy, no. 4(83), 1978.
Tr4		Institut eksperimental'noy meteorologii. Trudy, no. 21(80), 1978.
Tr5		Institut geofiziki AN GruzSSR. Trudy, no. 4, 1978
Tr6		Institut kibernetiki AN GruzSSR. Trudy, no. 3, 1978.
Tr7		Tashkentskiy universitet. Sbornik nauchnykh trudov, no. 550, 1978.
Tr8		Institut teoreticheskoy astronomii AN SSSR. Trudy, no. 17, 1978.
Tr9		Institut fiziki AN BSSR. Preprint, no. 144, 1978.
Tr10		NI i proyektnyy institut redkometallicheskoy promyshlennosti. Nauchnyye trudy, no. 86, 1977.
TVT	(TVTYA)	Teplofizika vysokikh temperatur
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskiy zhurnal
ZhETF	(ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	(ZFPRA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
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

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