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BIBLIOGRAPHY OF SOVIET
LASER DEVELOPMENTS (3)

MARCH-APRIL 1979

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
		145 DT - 78-202 3A
4. TITLE (and Subtitle)		5. TYPE OF REPORT & PERIOD COVERED
BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS, NO. 40, MARCH - APRIL 1979,		
7. AUTHOR(s)		6. PERFORMING ORG. REPORT NUMBER
Mansur		
9. PERFORMING ORGANIZATION NAME AND ADDRESS		8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
Defense Intelligence Agency Directorate for Scientific and Technical Intelligence, ATTN: DT-1A		
12. REPORT DATE		13. NUMBER OF PAGES
27 Nov 1979		111
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)
1219		UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		
Approved for public release; distribution unlimited		
17. Distribution Statement (of the abstract entered in Block 20, if different from report)		
18. Supplementary Notes		
19. KEY WORDS		
Solid State Lasers, Liquid Lasers, Gas Lasers, Chemical Lasers, Laser Components, Nonlinear Optics, Spectroscopy of Laser Materials, Ultrashort Pulse Generation, Crystal Growing, X-ray Lasers, Laser Theory, Laser Biological Effects, Laser Communications, Laser Beam Propagation, Laser Computer Technology, Holography, Laser Chemical Effects, Laser Parameters, Laser Measurement Applications, Laser-Excited Optical Effects, Laser Beam-Target Interaction, Laser Plasma		
20. ABSTRACT		
This is the Soviet Laser Bibliography for March-April 1979 and is no. 40 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; beam-target interaction; and plasma generation and diagnostics.		

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BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 40

MARCH - APRIL 1979

Date of Report

November 27, 1979

Vice Director for Production
Defense Intelligence Agency

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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 March-April 1979, 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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I. BASIC RESEARCH

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IV. SOURCE ABBREVIATIONS

(CIRC Codens)

BWAT	(BWATA)	Biuletyn Wojskowej akademii technicznej J. Dabrowskiego
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
Elek	(EKNTB)	Elektronika [Poland]
FAiO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FGiV	(FGVZA)	Fizika goreniya i vzryva
FiKhOM	(FKOMA)	Fizika i khimiya obrabotka materialov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN Az	(IAFMA)	Akademiya nauk Azerbaydzhanskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya
IAN Mold	(IZFMB)	Akademiya nauk Moldavskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
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
JTP	(JTPHD)	Journal of Technical Physics [Poland]
KE	(KVEKA)	Kvantovaya elektronika
KhVE	(KHKVA)	Khimiya vysokikh energiy
KLDV	(KLDVA)	Knizhnaya letopis'. Dopolnitel'nyy vypusk
Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike

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
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
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	Sbornik	Vsesoyuznaya konferentsiya. Problemy izucheniya upravlyayemykh parametrami lazernogo izlucheniya. Ist. Tashkent, 1978. Tezisy dokladov. Part 2. Tashkent, 1978.
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- Sb17 Fizicheskaya elektronika, no. 17, L'vov, 1978.
- TK1T (TKTEA) Tekhnika kino i televedeniya
- Tr1 Trudy Leningradskiy elektrotekhnicheskiy institut. Izvestiya, no. 237, 1978.
- Tr2 Moskovskoye vyssheye tekhnicheskoye uchilishche. Trudy, no. 283, 1978.
- Tr3 Moskovskiy institut elektronnoy tekhniki. Sbornik nauchnykh trudov, no. 35, 1977.
- Tr4 Leningradskiy elektrotekhnicheskiy institut. Izvestiya, no. 229, 1978.
- Tr5 Trudy uchebnykh institutov svyazi. Priyemno-peredayushchaya tekhnika i anteny. Leningrad, 1978.
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- Tr9 Institut eksperimental'noy meteorologii. Trudy, no. 8(81), 1978.

Tr10		Buryatskiy institut yestestvennykh nauk Buryatskogo filiala SOAN. Trudy, no. 22, 1977.
Tr11		Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 139, 1979.
Tr12		Glavnaya geofizicheskaya observatoriya. Trudy, no. 406, 1978.
Tr13		VNII Viziko-tekhnicheskikh i radiotekhnicheskikh izmereniy. Trudy, no. 36(68), 1978.
Tr14		Radiotekhnicheskii institut AN SSSR. Trudy, no. 32, 1978.
Tr15		Moskovskoye vyssheye tekhnicheskoye uchilishche. Trudy, no. 285, 1978.
TVT	(TVTYA)	Teplofizika vysokikh temperatur
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskiy zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Fizika, astronomiya
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
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PASCU A	11	PLYASULYA V M	35	PYATAYEV V Z	29	RUDNITSKIY A L	77
PASCU H L	11	PLYATSKO G V	85, 88	R		RUDNITSKIY YU P	4, 5
PASHININ P P	8	PODGAYETSKIY V M	23	RADAUTSAN S I	81	RUHIN A V	19
PASHKOV V A	42, 87	PODGORNY V I	77	RADAYEV V N	92	RUHIN V B	18
PAVLOV L I	36	PODKOVRIN S I	77	RAICHENKO V V	88	RUKHMAN G I	58
PAVLOV L Y	68	PODMOSHENSKIY I V	11, 18	RAFIKER R A	75	RUMYANTSEV A S	4
PAVLOV N M	51	POGORELOV V YE	54, 91	RAGOZIN YE N	86	RUMYANTSEV K YE	25
PAVLYCHEVA N K	74	POGORELYY D N	83, 85	RAGUL'SKIS K M	57	RUPASOV A A	33, 92
PAVLYUK A A	2, 45	POGOSYAN K P	30	RAK V G	13	RUZANOV YU D	26
PECHENOV A N	4	POKORNYAKHO N G	54	RAKHIMOV A T	16	RYABCHIKOVA V P	75
PELEKHATYY V M	35	POLAK L S	13	RAKHVALOV V V	16	RYABOV YE A	63
PENTIN YU A	81	POLEVY B I	10	RAKOCEVIC S	47	RYABOVA R V	59
PEREGUDOV G V	86	POLKOVNIKOV B F	12	RASTORGUYEV YU G	68	RYBAL'SKIY V V	68
PEREVOZNOV A F	10	POLKOVNIKOV V K	47	RASTRENIENKO N A	67	RYKALIN N N	86
PEREZHOGIN V B	78	POLOTERNOV L V	6	RATNIKOV S I	79	RYZHNIKOV A I	35
PERINA J	36	POLOVINKO V V	79	RAUTIAN S G	61	S	
PERINOVA V	36	POLDOZHNIKHIN A I	55	RAYEVSKIY I M	45	SABITOV M	89
PERHOGOROV S A	84	POLTORATSKIY B F	56	RAYKH M E	32	SAFARYAN F P	2
PERSAK T	25	POLUEKTOV P P	83	RAYKOV S N	83	SAFONOV L M	93
PERSIANTSEV I G	10	POLYAKOV M I	32	RAZUMOVSKAYA N A	34	SAFONOV V P	45
PERTSEV A N	94	POLYANSKAYA T A	24	RED'KO V P	51	SAFRONOV L N	58
PESHCHEROV S N	12	PONEZHA YE A	28	REDKOBORODYY YU N	91	SAKHAROV I YE	11
PESHIN S V	40	PONOMARENKO A G	9	REDKORECHEV V I	38, 67	SALASHCHENKO N N	87, 90
PESUT V	68	POPONIN V P	9	REICHE P	2	SALAYEV E YU	42, 80
PETNIKOVA V M	42	POPOV I A	38, 68	RENTSCH M	16	SAMARSKIY A A	90
PETRAMOVSKIY V P	71	POPOV L N	46, 47	RESHETIN YE F	20	SAMARTSEV V V	44
PETRASH G G	14	POPOV S N	51	RESHINA I I	4	SAMOKHIN A A	15
PETRASHNEVICH L A	70	POPOV V A	26	REZNICHENKO V VL	80	SAMOYLOV M S	2
PETROSYAN A G	2	POPOV YU M	4, 23	REZNIKOV I V	89	SAMONOV V D	34
PETROV A I	3	POPOV YU V	28, 32	RINKLIVICHYUS B S	94	SANINA V A	84
PETROV M P	22, 23, 31, 60	PORNOY YE, L	4, 29	RISTICI M	71, 77	SARKISOV S E	2
PETROV N S	41, 82	POTAPOV A P	61	RIVLIN L A	6	SARTAKOV B G	12
PETROV V D	57	POTAPOV O A	77	ROMANOV N B	45	SATTIKULOV M	29
PETROV V N	23	POVETKIN V A	72	ROMANOV D A	15	SAVEL'YEV I I	17
PETROVA A G	14	POYUROVSKAYA I YE	86	ROMANOVSKAYA K M	55	SAVEL'YEV V A	76
PETROVA T V	27	POYZNER B N	46, 47	ROZANOV V B	58	SAVITSKIY V B	54
PETROVICH I P	60	PRENGEL L	77	ROZHDESTVENSKIY A YE	91	SAVITSKIY V G	85
PETRU F	77	PRESLENEV L N	39				
PIGUL'SKIY S V	7, 63						
PIKARNIKOV V P	30						

SAVDOST'YANOVA L P	60	SHEVTSOVA A I	73	SKULACHEV V P	48	STARBUJTSSEV A I	7,63
SAYDASHEV I I	24	SHEYNERMAN S A	16	SKVORTSOV M N	65	STAROSTENKO B V	75
SAYENKO I I	26	SHIBANOV A N	83	SLAMENIK F	78	STAROSTIN A N	10,91
SAZONOV A I	63	SHIKANOV A S	33,89,92	SLIVKA L K	23	STASEL'KO D I	59,70
SAZONOV V N	64	SHILO V P	57,81	SLIVKA V YU	85	STASHKEVICH A A	78
SCHINDLER K	34,35	SHIRYAGINA G I	58	SLOMINSKIY YU L	28	STAUPENGAHL G	35
SCHROEIDER C	89	SHISHKINA L I	92	SLOVETSKIY D I	10	STAVRAKOV G N	27
SCHROETER O	72	SHISHKINA T P	28	SMIRNOV G I	16,45,92	STEFANOVICH V A	85
SCHULTZE D	2	SHKERDIN G N	39	SMIRNOV M G	37,70	STEFANOVICH V T	30
SCHWAN S	17	SHKUNOV V V	37,43	SMIRNOV P S	85	STEL'NAKH M F	48
SEDEL'NIKOV V A	92	SHLITERIS E P	29	SMIRNOV S A	74	STEPANCHENKO N F	32
SELEZNEV V A	74	SHLYAGIN M G	31	SMIRNOV S N	45	STEPANOV A A	18
SENCHISHEN V A	44	SHLYAKHTICHEV O D	51	SMIRNOV V G	11,36	STEPANOV A N	70
SEMENENKO A I	72	SHMAL'GAUZEN V I	69,78	SMIRNOV V L	50	STEPANOV B M	26
SEMENENKO L V	72	SHMAL'KO A V	50	SMIRNOV VL N	88	STEPANOV S I	60
SEMENOV A M	30	SHMARTSEV YU V	24	SMIRNOV YE A	47	STEPANOV V A	47
SEMENOV A S	3,28,31	SHMAYENOK L A	16	SMIRNOVA T N	44	STEPANOV VYACH A	9
SEMENOV A YU	48	SHPAK M T	6,21,44	SMOLYA A V	22,52	STERIAN P E	50
SEMINOGOV V N	40,43	SHTAN'KO A YE	71	SMUROV I YU	27	STERLIGOV V A	79
SERGEYEV A B	31	SHTAYNBERG YA B	28	SNOPKO V N	86	STRAKOVSKAYA S YE	85
SERGIYENKO A F	10	SHTAYNSHRAYBER V YA	80	SNOPOV A G	90	STRIZHEVSKIY V L	33,34,35
SERKIN V N	44	SHTURBIN A V	85	SOROLEV A G	27		37
SEROV R V	4,26,46	SHUGAYEV V I	61	SOROLEV N N	8	STROGANOV V I	35
SEVARIKOV V N	21	SHULAKOV V N	7	SOFRONOVA S YU	30	STRUKOV B A	85
SHABANOV V I	74	SHUMAY I L	36	SOKOLOV I V	78	STUPAK A P	44
SHABLAYEV S I	78	SHUTOVA L A	51	SOKOLOVA R S	34	STUS' YU F	70
SHAKHUNOV V A	26	SHVARTS N L	72	SOKOLOVSKAYA A I	61	SUBASHIYEV V K	78
SHAKIN O V	22	SIDORENKO V I	81	SOKOLOVSKIY R I	17,83	SUBBOTIN F M	59
SHALAYEV YE A	33	SIDOROVICH V G	37	SOLDATOV A N	14	SUCHKOV A F	10
SHALYGIN V A	85	SIFOROV S V	69	SOLODKOV A F	26	SUKHAREV S A P	38
SHAPIRO D A	92	SIL'CHUK N D	61	SOLODKHIN R I	21	SUKHORUKOV A P	34,53
SHAPKIN P V	28	SILENOK A S	89	SOLOV'YEV A A	48	SUKOV A I	33
SHARKOV V F	36	SILIN V P	33,91	SOLOV'YEV V D	41	SURAN V V	62
SHARONOVA L V	24	SIL'KIS E G	79	SOLOV'YEV V YE	4	SUSHCHINSKIY M M	94
SHAROV S K	71	SIL'VESTROV V G	82	SOLOV'YEVA N M	42	SUSHKEVICH K D	83
SHASHKOV V M	7	SIL'VESTROVA I M	32	SON V G	7	SUTORSHIN V N	77
SHATALIN S V	11	SIMONOV A P	83	SOROKA A M	21	SUYETIN N V	16
SHCHEGLOV V A	15,18	SIMONOV B M	6	SOROKA S I	57,61	SUYETINA N V	80
SHCHERBAKOV A A	22	SIMONOVA G V	23	SOROKOVIKOV V N	50	SVETSITSKAYA N A	41
SHCHERBAKOV G P	72,78	SINANYAN R R	84	SOSKIN M S	61	SVERCHKOV YE I	49
SHCHERBAKOV YU M	61	SINITSA L N	29	SOSOV YU M	22	SVERDLOV L M	83
SHCHETINKIN V S	75	SINIITSYN A M	68	SOYKA A K	1	SVETLICHNYY I B	15
SHEBEKO YU N	10	SINITSYN G B	8	SPINEA A	82	SVICH V A	13
SHELKOV N V	22	SINITSYN V G	67	SPORNIK N M	62	SVIRIDOV A G	8
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65	TAL' ROZE V L	6, 17, 92	VASIL' YEVA L A	47		21
79	TANANA K V	71	VASIL' YEVA M A	68	YAKOBI YU A	15
61	TARANENKO V A	17	VASIN B L	32	YAKOVLENKO S I	22
15	TARASENKO V F	4	VASIN V F	79	YAKOVLEV A V	21
78	TARASYUK V G	17	VASTUTINSKIY YU I	78	YAKOVLEV S A	73
67	TARARENKO V M	57	VAVRUCH D	79	YAKOVLEV YE B	86
19	TATU V	79	VAYNER YU G	56	YAKUROVICH S D	22
87	TATULOV R A	93	VEENOV A A	63	YAKUNIN V P	17
13, 49	TELEBIN G I	90	VELIKHOV YE P	86	YAMBAYEV KH K	79
49	TERENT'YEV A P	1	VERKHOTUROV A D	68	YAMPOL'SKIY YE S	12
30	TERICHEV V F	87	VERTIY A A	94	YAROVA A G	27
43	TIGIN B V	U	VEYKO V P P	86	YASENEV V D	32
33, 89, 91	TIKHOMIROV S A	28	VIKHEV V P	79	YASHKIR YU N	34
12	TIKHONOV YE A	45	VIKHROV M N	39	YASTREBKOV A B	11, 35
87	TIMCHENKO B A	86	VINDGRADOV YE A	69, 81	YATSENKO L P	69
65	TIMOFEYEV A L	3	VINDGRADOVA A A	11	YEFIMKO V F	37
69	TIMOFEYEV V A	8	VINDGRADOVA N V	84	YEFIMOV YU P	87
2	TIMOFEYEV YU P	3	VITRIKHOVSKIY N I	88	YEFIMOVSKIY S V	11
27	TIMOSHCHIKIN M I	67	VIZEN F L	57	YEGEREV S V	40
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93	TIRATSUYAN V G	43	VLASOV N G	71	YEGOROV K D	56
51	TISENKO V N	28	VLASOV S N	42	YEGOROV S G	22
9	TISHCHENKO A V	40	VOINOV A M	11, 18	YEGOROV YU V	40
90	TISHCHENKO V N	69	VOKHNIK O M	37	YELESIN V F	3
26, 27, 67	TISHKIN V F	38	VOL'F B YE	81	YELISEYEV B A	79
80	TITOV A N	70	VOLOSHINOV B R	23	YELISEYEV P G	52
79	TITOV R A	68	VOLOSOF V D	35	YELIZAROVA T G	53
77	TOLJACHEV A V	22	VOLYNETS F K	27	YELYUTIN S O	47
28	TOLJACHEV A I	26, 68	VOROB'EYCHIKOV E S	47	YEMEL'YANOV V I	43, 65
49	TOLJACHEVA A YE	5	VOROB'YEV L YE	56	YEMEL'YANOV V N	48
43	TOLPANEV R G	V	VOROB'YEV V V	85	YENIN V I	79
13	TOMKOV A N	28	VORONIN S P	39, 54	YENINA Z I	79
88	TOROSOVICHEV V A	73	VORONOV V V	31	YEPIKIN V A	13
53	TRET'YAKOV G K	81	VOROSHILOV YU V	80	YEPIKINOV V A	7
42	TRIFONOV YE D	57	VOZDVOVICH A P V	85	YEREMIN A A	72
27	TROITSKIY I N	28	VRASTIL M	18	YERNACHENKO V M	43
62	TRUKHMAN O M	62	VUL' A YA	24	YERRAKOV B A	28, 32
75	TRUKHMANENKO E M	10	VYAZOVICH YE I	78	YERRAKOV T B	57
9	TRUSHIN S A	53	VYSLOUKH V A	24	YEROFEYEV G S	76, 79
59	TRYAPITSIN M Z	81	W	21	YEROSHOV L S	19
6	TSARFIN V YA	24	WAGNER K	56	YESIKOV O S	26, 49
63	TSILJINKO A M	60	WOJCIECHOWSKI S	89	YESIPOV I R	70
77	TSIPILEV V P	7	WYLEZYNSKI Z	79	YESYENOVA G V	40
90	TSOY T G	78	VASIL'YEV V	79	YEYSEYEV I V	59
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