

NO-R191 378

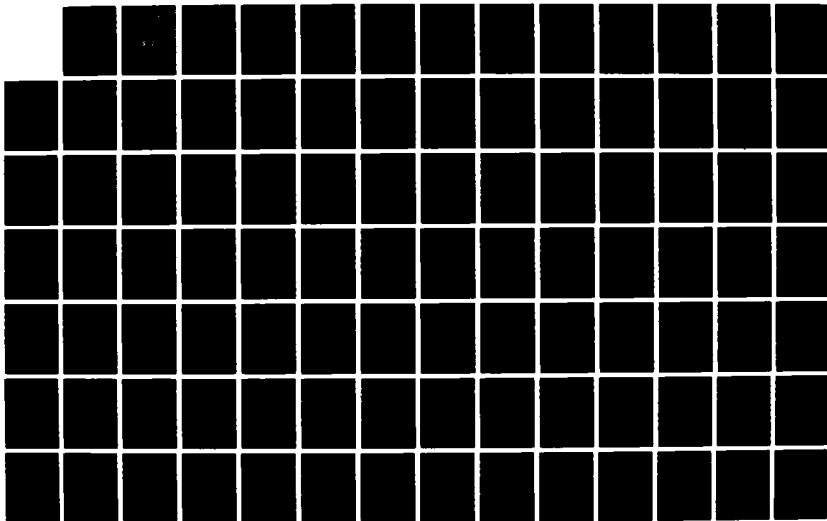
BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS NUMBER 79  
SEPTEMBER - OCTOBER 1985(U) DEFENSE INTELLIGENCE AGENCY  
WASHINGTON DC DIRECTORATE FOR SCI.. JAN 87

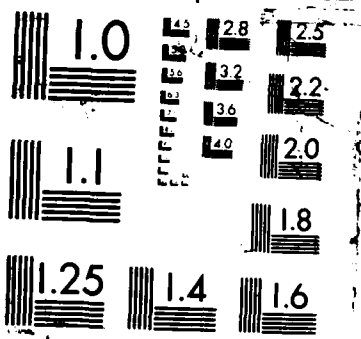
1/2

UNCLASSIFIED

F/8 9/3

ML





1

DTIC FILE COPY

AD-A191 370

# Bibliography of Soviet Laser Developments

September - October 1985

DTIC  
ELECTE  
MAR 10 1988  
S D  
C D



Defense Intelligence Agency

DISTRIBUTION STATEMENT A  
Approved for public release  
Distribution Unlimited

DST-27002-002-87  
January 1987

88 3 09 09 8

## BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 79

SEPTEMBER - OCTOBER 1985

Date of Report

November 14, 1986

Vice Director for Foreign Intelligence  
 Defense Intelligence Agency

Accession For		- /
NTIS	CRA&I	<input checked="" type="checkbox"/>
DTIC	TAB	<input type="checkbox"/>
Unannounced		<input type="checkbox"/>
Justification		
By		
Distribution /		
Availability Codes		
Dist	Avail and/or Special	
A-1		

This document was prepared for the Defense Intelligence Agency under an intragovernment agreement. It is intended to facilitate access of government researchers to Soviet laser literature.

Comments should be addressed to the Defense Intelligence Agency, Directorate for Scientific and Technical Intelligence, ATTN: DT-5A

Approved for public release; distribution unlimited

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DST-2700Z-002-87	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS, No. 79 SEPTEMBER - OCTOBER 1985	5. TYPE OF REPORT & PERIOD COVERED	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s)	8. CONTRACT OR GRANT NUMBER(s)	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Defense Intelligence Agency Directorate for Scientific and Technical Intelligence	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE November 14, 1986	
	13. NUMBER OF PAGES 120	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report) 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, Laser Crystal Growing, Free Electron Lasers, Laser Theory, Laser Biological Effects, Laser Communications, Laser Beam Propagation, Adaptive Optics, Laser Computer Technology, Holography, Laser Chemical Effects, Laser Parameters, Laser Measurement Applications, Laser-Excited Optical Effects, Laser Spectroscopy, Laser Beam-Target Interaction, Laser Plasma		
20. ABSTRACT This is the Soviet Laser Bibliography for September-October 1985, and is No. 79 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 systems; 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.		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

## 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 September-October 1985, 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.

Since our computer is not now able to print between lines, superscripts and subscripts are indicated by (sup) and (sub).

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.

SOVIET LASER BIBLIOGRAPHY, SEPTEMBER - OCTOBER 1985

TABLE OF CONTENTS

I. BASIC RESEARCH

A. Solid State Lasers

1. Crystal

a. Miscellaneous .....	1
b. Ruby .....	---
c. LiF .....	---

2. Rare Earth

a. Miscellaneous .....	1
b. Nd <sup>3+</sup> .....	2
c. Er <sup>3+</sup> .....	---
d. Ho <sup>3+</sup> .....	---
e. Tm <sup>3+</sup> .....	---

3. Semiconductor

a. Theory .....	3
b. Miscellaneous Homojunction .....	---
c. Miscellaneous Heterojunction ....	3
d. GaAs .....	---
e. CdS .....	3
f. ZnSe .....	---
g. Pb(1-x)Sn(x)Te .....	4
h. InGaAsP .....	4

4.	Glass	
	a. Miscellaneous .....	---
	b. Nd .....	5
	c. Er .....	---
B.	Liquid Lasers	
	1. Organic Dyes	
	a. Miscellaneous .....	6
	b. Rhodamine .....	7
	c. Polymethine .....	---
	d. Coumarin .....	---
	e. Phthalimide .....	---
	f. Cyanine .....	---
	g. Xanthene .....	---
	h. POPOP .....	---
	2. Inorganic Liquids .....	---
C.	Gas Lasers	
	1. Theory .....	8
	2. Simple Mixtures	
	a. Miscellaneous .....	8
	b. He-Ne .....	9
	c. He-Xe .....	9
	d. He-Kr .....	10
	e. Ar-Xe .....	---



3.	Molecular Beam and Ion	
a.	Miscellaneous .....	10
b.	Carbon Dioxide .....	10
c.	Carbon Monoxide .....	11
d.	Noble Gas .....	12
e.	Nitrogen .....	12
f.	Iodine .....	12
g.	Hydrogen .....	---
h.	Ammonia .....	13
i.	Carbon Tetrafluoride .....	---
j.	Nitrous Oxide .....	---
k.	Water Vapor.....	---
l.	Heavy-Water Vapor .....	---
m.	Submillimeter .....	---
n.	Metal Vapor .....	13
o.	Gasdynamic .....	14
4.	Excimer .....	14
5.	Dye Vapor .....	---
D.	Chemical Lasers	
1.	Miscellaneous .....	15
2.	Fluorine + Hydrogen (Deuterium) .....	---
3.	Photodissociation .....	15
4.	Transfer .....	---
5.	Oxygen + Iodine .....	16
6.	Carbon Disulfide + Oxygen .....	16
7.	Sulfur Hexafluoride + Hydrogen .....	---

E. Components	
1. Miscellaneous .....	---
2. Resonators	
a. Design and Performance .....	16
b. Mode Kinetics .....	17
3. Pump Sources .....	17
4. Cooling Systems .....	18
5. Deflectors .....	18
6. Attenuators .....	18
7. Collimators .....	18
8. Diffraction Gratings .....	19
9. Focusers .....	19
10. Windows .....	---
11. Polarizers .....	19
12. Beam Shapers .....	---
13. Lenses .....	19
14. Filters .....	20
15. Beam Splitters .....	20
16. Mirrors .....	20
17. Detectors .....	21
18. Modulators .....	22

F. Nonlinear Optics	
1. General Theory .....	24
2. Frequency Conversion .....	28
3. Parametric Processes .....	29
4. Stimulated Scattering	
a. Miscellaneous Scattering .....	---
b. Raman .....	30
c. Brillouin .....	31
d. Rayleigh .....	---
5. Self-focusing .....	31
6. Acoustic Interaction .....	31
G. Spectroscopy of Laser Materials .....	32
H. Ultrashort Pulse Generation .....	33
J. Crystal Growing .....	33
K. Theoretical Aspects of Advanced Lasers ..	33
L. General Laser Theory .....	34

II.	LASER APPLICATIONS	
A.	Biological Effects .....	36
B.	Communications Systems .....	37
C.	Beam Propagation	
1.	Theory .....	44
2.	Propagation in the Atmosphere .....	46
3.	Propagation in Liquids .....	49
4.	Adaptive Optics .....	49
D.	Computer Technology .....	51
E.	Holography .....	52
F.	Laser-Induced Chemical Reactions .....	56
G.	Measurement of Laser Parameters .....	56
H.	Laser Measurement Applications	
1.	Direct Measurement by Laser .....	57
2.	Laser-Excited Optical Effects .....	66
3.	Laser Spectroscopy .....	70
J.	Beam-Target Interaction	
1.	Miscellaneous Targets .....	79
2.	Metal Targets .....	81
3.	Dielectric Targets .....	84
4.	Semiconductor Targets .....	84
K.	Plasma Generation and Diagnostics .....	86
III.	MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS ..	90
IV.	SOURCE ABBREVIATIONS .....	93
V.	AUTHOR AFFILIATIONS .....	99
VI.	AUTHOR INDEX .....	110

## I. BASIC RESEARCH

### A. SOLID STATE LASERS

#### 1. Crystal

##### a. Miscellaneous

1. Bagdasarov, Kh.S.; Krasilov, Yu.I.; Kuznetsov, N.T.; Kuratev, I.I.; Potemkin, A.V.; Shestakov, A.V.; Zverev, G.M.; Siyuchenko, O.G.; Zhitnyuk, V.A. (IONKh; IKAN). Laser properties of  $\alpha\text{-Al}(\text{sub}2)\text{O}(\text{sub}3):\text{Ti}(\text{sup}3+)$ . DANKA, v. 282, no. 4, 1985, 848-850.
2. Lebedev, V.I.; Yurevich, V.A.; Yasen', A.I. (IFANBMO). The generation of pulses by a solid-state laser with a self-induced phase-amplitude lattice in an active medium. DBLRA, no. 10, 1985, 913-916.
3. Martynovich, Ye.F.; Tokarev, A.G. (IGU). Lasing the 1  $\mu\text{m}$  region from color centers in  $\text{Al}(\text{sub}2)\text{O}(\text{sub}3)$  at 300K. ZTEFA, no. 10, 1985, 2038-2039.
4. Mikhnov, S.A.; Voytovich, A.P.; Kononov, V.A.; Uskov, V.I.; Grinkevich, V.E. (IFANB). Tunable lasing in sapphire crystals with color centers. IFANB. Preprint, no. 367, 1985, 8 p. (RZFZA, 85/9L866).
5. Shul'gin, B.V.; Keda, O.A.; Vasilenko, M.V.; Kortov, V.S.; Kalent'yev, V.A.; Bagdasarov, Kh.S.; Kevorkov, A.M. (UrPI). Thermostimulated luminescence of  $\text{Y}(\text{sub}3)\text{Al}(\text{sub}5)\text{O}(\text{sub}12)\text{-Cr}(\text{sup}3+)$  crystals. ZTEFA, no. 9, 1985, 1868-1872.
6. Zharikov, Ye.V.; Kalitin, S.P.; Laptev, V.V.; Mayyer, A.A.; Osiko, V.V. (MKhTI). Research and development of active media for gallium garnet lasers. MKhTI. Trudy, no. 133, 1984, 3-15. (RZFZA, 85/10L910).

##### b. Ruby

##### c. LiF

#### 2. Rare Earth

##### a. Miscellaneous

7. Tkachuk, A.M.; Klokishner, S.I.; Petrov, M.V. (). Self-quenching of luminescence in lithium-erbium and lithium-holmium double-fluoride concentrated crystals. OPSPA, vol. 59, no. 4, 1985, 802-811.

- b. Nd<sup>3+</sup>
8. Apanasevich, P.A.; Gravchikov, A.S.; Kvach, V.V.; Kozich, V.P.; Orlovich, V.A. (IFANB). Highly efficient YAG:Nd<sup>3+</sup> laser with an unstable resonator and polarized output radiation. IFANB. Preprint, no. 365, 1985, 33 p. (RZFZA, 85/10L972).
  9. Badalyan, A.A.; Sapondzhyan, S.O.; Sarkisyan, D.G.; Torosyan, G.A. (IFI). Mode locked YAG:Nd<sup>3+</sup> laser at wavelengths of 1052 nm, 1061 nm, 1064 nm, and 1074 nm. PZTFD, no. 20, 1985, 1241-1245.
  10. Basov, Yu.G.; Makarov, V.N. (). Effect of pumping pulse shape on solid state laser radiation. R.ELA, no. 9, 1985, 1859-1862.
  11. Batishche, S.A.; Malevich, N.A.; Mostovnikov, V.A.; Myshalov, P.I. (). Effect of multipassing amplified luminescence formed on illuminator elements upon the output energy of single-pulse YAG-Nd(sup3+) laser systems. ZPSBA, vol. 43, no. 4, 1985, 576-579.
  12. Bogdanov, S.F.; Konvisar, P.G.; Rustamov, S.R. (). Ultraviolet radiation from a LiIO(sub3) crystal at the frequency of a YAG:Nd(sup3+) laser third harmonic under mode-locked operation. KVEKA, no. 10, 1985, 2143-2144.
  13. Golubev, P.G.; Kandaurov, A.S.; Lazarev, V.V.; Safronov, Ye.K. (). Lasing properties of neodymium-doped lanthanum beryllate. KVEKA, no. 9, 1985, 1834-1837.
  14. Jankiewicz, Z.; Mindak, M.; Szydlak, J.; Wojcik, J. (). Analysis of the thermal focusing effect in c-w Nd:YAG lasers. BWATA, no. 4, 1985, 59-68. (RZRAB, 85/9Ye101).
  15. Zharnikov, S.D.; Manak, I.S.; Solov'yeva, N.N. (). Study on the efficiency of using injection heterolasers to pump crystals with a high neodymium ion content. VINITI. Deposit, no. 5596-85, 30 Jul 1985, 14 p. (RZFZA, 85/10L914).

- c. Er<sup>3+</sup>
- d. Ho<sup>3+</sup>
- e. Tm<sup>3+</sup>

### 3. Semiconductor

#### a. Theory

- 16. Ivanov, Yu.L. (). Spontaneous and stimulated emission from light-weight holes in germanium in crossed E and H fields. Voprosy fiziki poluprovodnikov. Zimnaya shkola FTI, 11th, 22 Feb--1 Mar 1984. Doklady. Leningrad, 1984, 160-181. (RZRAB, 85/9Ye719).
  - 17. Marincic, A. (). Structure and modulation characteristics of semiconductor laser signal sources (in Serbo-Croatian). TEHBA, no. 3, 1985, 361-367. (RZFZA, 85/9L876).
  - 18. Yeliseyev, P.G. (). International Conference on Semiconductor Lasers, 9th, Rio de Janeiro, Aug 1984. VANSA, no. 4, 1985, 112-118.
- #### b. Miscellaneous Homojunction
- #### c. Miscellaneous Heterojunction
- 19. Glas, P.; Hartwig, P.; Erbert, G. (). Characterization of GaAs-AlGaAs double heterostructures by their passive waveguide properties. EXPPA, no. 1, 1985, 79-92. (RZFZA, 85/9L900).
  - 20. Karpov, S.Yu.; Nikishin, S.A.; Portnoy, Ye.L.; Sinyavskiy, D.V. (FTI). Multiple wave laser emitter based on an Al(x)Ga(1-x)As solid solution. ZTEFA, no. 10, 1985, 1962-1966.
- #### d. GaAs
- #### e. CdS
- 21. Razabirin, B.S.; Mikhaylov, G.V.; Nel'son, D.K.; Panfilov, A.G. (FTI). Effects of kinetics and mixing of exciton states in CdS by a magnetic field. FTPPA, no. 9, 1985, 1690-1695.

22. Tyagay, V.A.; Sterligov, V.A.; Snitko, O.V.; Senchilo, A.G. (IPANUK). Study on the amplification and propagation of light in CdS single-crystal lasers. KVELA, no. 29, 1985, 21-28.
- f. ZnSe
- g.  $Pb(1-x)Sn(x)Te$
23. Dadarlat, D.; Candea, R.M.; Barlea, M.; Chirtoc, M. (). Behavior of the carrier concentration and the quasi-Fermi levels for  $Pb(1-x)Sn(x)Te$  single and double heterostructure diode lasers (in English). SBBPA, v. 29, no. not given, 1984, 21-26. (RZFZA, 85/10L946).
- h. InGaAsP
24. Alferov, Zh.I.; Arsent'yev, I.N.; Vavilova, L.S.; Garbuzov, D.Z.; Tikunov, A.V. (FTI). Continuous short wave injection laser at 0.677  $\mu m$  based on separately limited double heterostructure InGaAsP/GaAsP with 10 milliwatt power. PZTFD, no. 19, 1985, 1153-1157.
25. Alferov, Zh.I.; Garbuzov, D.Z.; Ovchinnikov, A.V.; Tarasov, I.S.; Yevtikheyev, V.P.; Nivin, A.B.; Svelokuzov, A.Ye. (FTI). Continuous separately limited double heterostructure InGaAsP/InP laser at 17 percent efficiency at 1.32  $\mu m$  and  $T=290$  K. PZTFD, no. 19, 1985, 1157-1162.
26. Gorelenok, A.T.; Gruzlov, V.G.; Dekal'chuk, A.A.; Dekal'chuk, T.V.; Il'inskaya, N.D.; Mokina, I.A.; Tarasov, I.S. (FTI). Mesostriped InGaAsP/InP continuous operation lasers at 1.5  $\mu m$ . ZTEFA, no. 9, 1985, 1872-1876.
27. Vasil'yev, M.G.; Koval'chuk, Yu.V.; Kuchinskiy, V.I.; Myachin, V.Ye.; Portnoy, Ye.L.; Smirnitskiy, V.B.; Sokolov, I.A. (FTI). InGaAsP/InP injection laser with distributed feedback obtained with interference laser annealing. ZTEFA, no. 10, 1985, 2034-2036.
28. Yeliseyev, P.G.; Ismailov, I.; Shokhudzhayev, N. (FIAN). Piezoelectric effect for amplification in GaInAsP/InP laser diodes. KRSFA, no. 9, 1985, 33-36.
29. Yeliseyev, P.G.; Shokhudzhayev, N. (FIAN; FTIANTadzh). Stressed GaInAsP/InP heterojunction structures and their service life possibilities. KRSFA, no. 9, 1985, 55-57.



#### 4. Glass

- a. Miscellaneous
  - b. Nd
30. Babukova, M.V.; Berenberg, V.A.; Glebov, L.B.; Nikonorov, N.V.; Petrovskiy, G.T.; Terpugov, V.S. (). Diffusion waveguides made of neodymium silicate glasses. KVEKA, no. 9, 1985, 1973-1974.
  31. Boyko, B.B.; Vasil'yev, N.N.; Vashkevich, I.M.; Uvarova, N.N.; Shkadarevich, A.P. (IFTTP). Waveguide laser with a passive  $\text{LiF:F}(\text{sub}2)(\text{sup} -)$  shutter. DBLRA, no. 10, 1985, 886-888.
  32. Ivashkin, P.I. (IOF). Gain in an active element of rectangular cross-section in a high-power Nd glass laser. IOF. Dissertation, 1985, 17 p.
  33. Kuratev, I.I.; Nasel'skiy, S.P.; Novikov, V.K.; Ryabov, A.I.; Toropkin, G.N.; Shestakov, A.V. (). Effect of filtration of the ultraviolet part of pumping radiation on energy characteristics of gamma-irradiated Li-Nd-La-phosphate glass. ZPSBA, vol. 43, no. 3, 1985, 409-412.
  34. Landa, K.A.; Petrovskiy, G.T.; Mishin, A.V.; Gumenny, S.A. (KeGU; GOI). Study on planar waveguides obtained in optical glasses by ion exchange diffusion from melts of  $\text{TlNO}(\text{sub}3)$  and  $\text{KNO}(\text{sub}3)$ . FKSTD, no. 5, 1985, 542-546.
  35. Wolinski, W.; Malinowski, M.; Wolski, R. (). Active dielectric materials for producing miniature amplifiers and coherent radiation sources. EKNTB, no. 11, 1984, 3-8,2,1. (RZRAB, 85/9Yell5).
  36. Zaporozhchenko, V.A.; Kachinskiy, A.V.; Chekhlov, O.V. (). Active mode-locking of the Nd:phosphate glass laser with short pulse pumping. ZPSBA, vol. 43, no. 4, 1985, 674-676.

c. Er

B. LIQUID LASERS

1. Organic Dyes

a. Miscellaneous

37. Alekseyev, N.N.; Gorelenko, A.Ya.; Grozhik, V.A.; Kalosha, I.I.; Kovalev, A.A.; Loyko, L.S.; Tolkachev, V.A. (IEANBel). Derivatives of oxazine 17 laser dyes for liquid-crystal matrices. KVEKA, no. 10, 1985, 2172-2174.
38. Barikhin, B.A. (). Dye laser with excitation from a magnetic-cumulative oscillator. ZPSBA, v. 43, no. 4, 1985, 550-554.
39. Demchuk, M.I.; Mikhaylov, V.P.; Yumashev, K.V.; Avdeyeva, V.I.; Monich, N.V.; Yagupol'skiy, L.M.; Kishkurno, N.A. (). Effect of substitutes in a molecule of pentacarbocyanine dye on relaxation times and output radiation parameters of a laser with passive mode synchronization. ZPSBA, vol. 43, no. 3, 1985, 413-419.
40. Hebling, J.; Bor, Zs.; Racz, B. (). Design of N(sub2) laser-pumped tunable distributed-feedback dye lasers with an extended tuning range (in English). APYCA, no. 3-4, 1984, 127-133. (RZRAB, 85/10Ye81).
41. Koepke, Cz. (). Influence of triplet losses on optical hysteresis in pulsed dye lasers (in English). ATPLB, v. A66, no. 6, 1984, 741-752. (RZFZA, 85/9L859).
42. Kotowski, T.; Majewski, W.; Skubiszak, W.; (). Energy transfer dye laser (in English). OPAPB, no. 4, 1984, 515-520. (RZRAB, 85/10Ye87).
43. Krymova, A.I.; Petukhov, V.A.; Popov, M.B. (FIAN). Emission characteristics of new laser dyes for green and red spectral regions. KVEKA, no. 10, 1985, 2163-2166.
44. Kukushkin, V.G. (). Nonlinear theory of spectral radiation concentration in a dye laser with an absorbing cell. ZPSBA, vol. 43, no. 4, 1985, 562-566.
45. Lucht, H.; Rubinov, A.N.; Efendiyev, T.Sh. (IFANB). Device for generating tunable laser pulses (in German). Patent GDR, no. 219088, 20 Feb 1985. (RZRAB, 85/9Ye93).

46. Lyakhov, G.A.; Svirko, Yu.P. (IOF). Theory of a laser using a dye in a mesogenic matrix near transition into the liquid-crystal phase. KVEKA, no. 10, 1985, 2059-2064.
47. Rubinov, A.N.; Slavenas, Yu.Yu.; Chesnulyavichyus, Y.Y.; Efendiyev, T.Sh. (). Generation of picosecond pulses in a dye laser with light-induced distributed feedback. ZPSBA, vol. 43, no. 3, 1985, 496-499.
48. Zhil'tsov, V.I.; Klimashina, A.G.; Mnuskin, V.Ye.; Nikiforov, V.G.; Tokareva, A.N.; Trinchuk, B.F. (). 217-3100 nm tuning range dye laser. ZPSBA, vol. 43, no. 3, 1985, 400-404.
49. Zhil'tsov, V.I.; Klimashina, A.G.; Mnuskin, V.Ye.; Nikiforov, V.G.; Tokareva, A.N.; Trinchuk, B.F. (). The LZHI-507 tunable laser based on solutions of organic compounds. PRTEA, no. 5, 1985, 236.
- b. Rhodamine
50. Asimov, M.M.; Gavrilenko, V.N.; Rubinov, A.N. (). Dependence of laser efficiency of dye solutions on excitation conditions and active medium parameters. ZPSBA, vol. 43, no. 4, 1985, 555-559.
51. Kazak, N.S.; Lugina, A.S.; Miklavskaya, Ye.M.; Nadenenko, A.V.; Pavlenko, V.K.; Sannikov, Yu.A. (). Quasi-longitudinal pumping of dye lasers. ZPSBA, vol. 43, no. 3, 1985, 404-409.
52. Smirnov, V.S.; Studenov, V.I. (). Pumping-duration effect on the spectral spatial-angular characteristics of light generation by rhodamine 6G solutions in a cavity with a small base. OPSPA, vol. 59, no. 4, 1985, 856-860.
53. Vishchakas, Yu.; Gul'binas, V.; Kabelka, V. (IFANLi). Phase response dispersion measurements in R6G and DODCI dye solutions. KVEKA, no. 10, 1985, 1989-1990.
54. Yelizarov, A.Yu. (FTI). Telescope for a dye laser composed of a prism and diffraction grating. ZTEFA, no. 10, 1985, 2075-2077.

- c. Polymethine
- d. Coumarin
- e. Phthalimide
- f. Cyanine
- g. Xanthene
- h. POPOP

## 2. Inorganic Liquids

### C. GAS LASERS

#### 1. Theory

- 55. Ablekov, V.K.; Geras'ko, Yu.V.; Denisov, Yu.N.; Lyubchenko, F.N.; Mironov, S.G. (). Detonation laser. OTIZD, no. 11, 1985, 831007. (RZRAB, 85/9Ye87).
- 56. Alyab'yev, B.V.; Vasil'yev, B.I.; Grasyuk, A.Z.; Smirnov, V.G. (). Ammonia-nitrogen laser, tunable in the range of 11 to 13 um. PRTEA, no. 5, 1985, 237.
- 57. Dorofeyev, I.A.; Sokolov, V.A. (LGU). Frequency characteristics of a single-mode ring gas laser with a two-isotope active medium (case of a "strong" laser field). VINITI. Deposit, no. 4026-85, 10 Jun 1985, 43 p. (RZFZA, 85/9L809).
- 58. Il'yushko, V.G.; Karabut, E.K.; Kravchenko, V.F.; Mikhalevskiy, V.S. (NIIFRGU). Convective flows in discharge tubes of repetitively pulsed gas-discharge lasers. KVEKA, no. 10, 1985, 2185-2187.
- 59. Ross, W. (). Pulsed gas laser. Patent GDR, no. 219340, 27 Feb 1985. (RZRAB, 85/9Ye88).

#### 2. Simple Mixtures

##### a. Miscellaneous

- 60. Bunkin, F.V.; Derzhiyev, V.I.; Mesyats, G.A.; Skakun, V.S.; Tarasenko, V.F.; Fedeneyev, A.V.; Yakovlenko, S.I. (IOF). High-power Ne-H(sub2) laser pumped from a small-size industrial accelerator. KVEKA, no. 10, 1985, 1993-1994.

b. He-Ne

61. Bogdanova, I.P.; Marusin, V.D.; Yakhontova, V.Ye. (). Electronically stimulated desorption of excited complex ions from electrode surfaces in helium and neon mixtures. OPSPA, vol. 59, no. 4, 1985, 888-890.
62. Catuneanu, V.M.; Podoleanu, A.Gh.; Sterian, P.E. (). Experimental analysis of a mode-locked He-Ne laser with phase modulation in a coupled resonator. SCEFA, no. 3, 1985, 216-219. (RZFZA, 85/9L933).
63. Danileyko, M.V.; Kravchuk, A.L.; Tselinko, A.M.; Yatsenko, L.P. (IFANUK). Wave competition effects in He-Ne lasers in the visible range. IFANUK. Preprint, no. 35, 1984, 24 p. (RZFZA, 85/10L857).
64. Dmitriyev, A.K.; Nekrasov, Yu.V. (). Study on the energy characteristics of a telescopic He-Ne laser at 3.39  $\mu\text{m}$ . IZTEA, no. 2, 1985, 28-29. (RZFZA, 85/9L827).
65. Kartaleva, St.S; Gateva, S.V.; Stefanov, V.Y. (). Investigation of spontaneous lines from upper and lower levels of the 632.8 nm He-Ne laser line excited in a hollow cathode (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 193-194. (RZRAB, 85/10Ye57).
66. Ristici, M.; Apostol, D.; Popescu, Gh.; Vasiliu, V. (). Determination of small signal gain coefficient and saturation intensity of some He-Ne laser lines (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 192. (RZRAB, 85/10Ye58).

c. He-Xe

67. Krestinin, V.V.; Manoshkin, Yu.V.; Tsar'kov, V.A. (). Characteristics of an Xe-He laser medium excited by a high-frequency H-discharge. RAELA, no. 10, 1985, 2004-2008.
68. Udal'tsov, B.V.; Tsar'kov, V.A. (). Characteristics of a direct-current discharge in He-Xe mixtures and amplification in He-Xe active media. RAELA, no. 6, 1985, 1170-1176. (RZRAB, 85/10Ye65).

d. He-Kr

69. Adamowicz, T.; Jaworski, K.; Siejca, A. (). Investigations of laser oscillation in He-Kr mixtures using a discharge tube with Rogowski profile electrodes (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 198. (RZRAB, 85/10Ye63).
70. Janossy, M.; Rozsa, K.; Apai, P.; Csillag, L. (). Direct-current hollow-cathode He-Kr ion laser (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 173. (RZRAB, 85/10Ye66).
71. Janossy, M.; Rózsa, K.; Csillag, L.; Le Trong Muu (). Hollow anode-cathode He-Kr ion laser (in English). APHUE, no. 1-4, 1984, 147-158. (RZRAB, 85/10Ye64).

e. Ar-Xe

3. Molecular Beam and Ion

a. Miscellaneous

72. Naumenko, N.A.; Suchkov, A.F. (FIAN). Possibility of developing efficient electric-discharge lasers using hydrogen-containing radicals. FIAN. Preprint. no. 322, 1985, 18 p.

b. Carbon Dioxide

73. Badziak, J.; Borzecki, M.; Chojnacka, A.; Dzwigalski, Z.; Kalbarczyk, A.; Kurzynski, Z.; Janulewicz, K.; Kubicki, J.; Iwanejko, L.; Perlinski, L.; Sikorski, Z.; Teter, J. (). Preliminary test of high-power CO<sub>2</sub> laser systems at the Institute of Plasma Physics, Poland (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 204-205. (RZRAB, 85/10Ye28).
74. Blinov, N.A.; Boyko, V.V.; Irodov, Ye.I.; Leont'yev, I.A.; Novoderezhkin, V.I.; Sinel'nikov, V.P.; Filippov, S.S.; Tsatsulin, M.I.; Cheburkin, N.V. (IPM). Spatial-temporal characteristics of pulsed CO<sub>2</sub> laser radiation taking into account fine scale inhomogeneities of active medium. KVEKA, no. 9, 1985, 1977-1981.
75. Ivanchenko, A.I.; Krashenninnikov, V.V.; Ponomarenko, A.G.; Shepelenko, A.A. (ITPM). Compact industrial CO<sub>2</sub> laser head. KVEKA, no. 10, 1985, 2155-2156.

76. Ivanenko, M.M.; Churakov, V.V. (). Simulation of oscillation on Q-branch lines of the CO<sub>2</sub> 02(sup0)0-01(sup1)0 band. ZPSBA, vol. 43, no. 3, 1985, 508-511.
77. Vol'skaya, S.P.; Tselykovskiy, A.F. (RRTI). Spatial structure of radiation from transverse RF-excited waveguide CO<sub>2</sub> lasers. KVEKA, no. 9, 1985, 1945-1947.
- c. Carbon Monoxide
78. Aleynikov, V.S.; Masychev, V.I. (). Role of xenon in the mechanism of population inversion in a carbon monoxide laser. Physicochemical processes and operating conditions of a laser with a sealed-off active element. KVEKA, no. 9, 1985, 1932-1939.
79. Aleynikov, V.S.; Masychev, V.I. (). Role of xenon in the mechanism of population inversion in a carbon monoxide laser. Physicochemical processes in the working mixture of a sealed-off active element. KVEKA, no. 9, 1985, 1940-1944.
80. Belykh, A.D.; Gurashvili, V.A.; Dem'yanov, A.V.; Izyumov, S.V.; Kochetov, I.V.; Napartovich, A.P.; Putilin, V.M.; Smakovskiy, Yu.B. (IAE). Measuring the gain in a pulsed uncooled electroionization CO laser. IAE. Preprint, no. 4146/12, 1985, 27 p. (RZFZA, 85/10L960).
81. Dolinina, V.I.; Kipshakbayev, A.I.; Kovsh, I.B.; Sukhorosov, S.Yu.; Urin, B.M. (FIAN). Dynamics of the population of vibrational levels in a CO molecule in the active medium of an electroionization pulsed CO laser. KVEKA, no. 10, 1985, 2150-2152.
82. Dubovskiy, P.Ye.; Kreychi, V.; Novak, M.; Pekarek, L.; Lotkova, E.N.; Shtirand, O.; Urbankova, G. (FIAN). Electric discharge instabilities and their effect on the radiation power of a waveguide CO laser. FIAN. Preprint, no. 308, 1985, 43 p.
83. Dubovskiy, P.Ye.; Lotkova, E.N.; Sobolev, N.N. (). Experimental estimation of CO-molecule spectral line pressure broadening in an electrical-discharge CO-laser active medium. ZPSBA, vol. 43, no. 3, 1985, 502-504.
84. Gerasimchuk, A.G.; Kornilov, S.T.; Protsenko, Ye.D.; Tymper, S.I. (MIFI). Waveguide CO laser with high excitation frequency. KVEKA, no. 9, 1985, 1783-1785.

85. Gutin, M.A.; Kol'chenko, A.P. (IAESOAN). Output power of a CO laser with Q-switching and frequency-selective radiation output in a single line. IAESOAN. Preprint, no. 235, 1984, 12 p. (RZRAB, 85/9Ye53).
- d. Noble Gas
86. Aleksandrov, A.Yu.; Anan'yev, V.Yu.; Basov, N.G.; Danilychev, V.A.; Dolgikh, V.A.; Ionin, A.A.; Kerimov, O.M.; Lytkin, A.P.; Myznikov, Yu.F.; Rugoy, I.G.; Soroka, A.M. (FIAN). Efficient visible laser with 3p-3s neon transitions. DANKA, vol. 284, no. 4, 1985, 851-854.
87. Cosma, B.T.; Petrascu, H. (). High-power pulsed ionized Xe laser (in English). RRPQA, no. 9, 1984, 803-805. (RZFZA, 85/9L831).
88. Kuz'min, V.V.; Livshits, M.G.; Fedorov, A.A. (BGU). Stable argon laser with phase mode locking. KVEKA, no. 10, 1985, 2189-2191.
- e. Nitrogen
89. Abramov, A.G.; Asinovskiy, E.I.; Bryukov, M.G.; Vasilyak, L.M. (IVTAN). Effect of fast electrons on the development of wave breakdown in air and lasing in a nitrogen laser. IVTAN. Preprint, no. 6/161, 1985, 12 p. (RZFZA, 85/9L849).
90. Drazek, W.; Pokora, L. (). Model of Ar-N(sub2) lasers pumped by a relativistic charged particle beam (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 206-207. (RZRAB, 85/10Ye52).
91. Pokora, L.; Zybura, A. (). Three-channel nitrogen laser (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 208-209. (RZRAB, 85/10Ye34).
- f. Iodine
92. Bobrov, B.D.; Dubyanskiy, V.A.; Kiselev, V.M.; Produvnov, A.B. (GOI). Energy expenditure optimization under magnetic control of amplification in iodine lasers. OPMPA, no. 10, 1985, 18-20.



- g. Hydrogen
- h. Ammonia
- 93. Baranov, V.Yu.; Dyad'kin, A.P.; Kazakov, S.A.; Pigul'skiy, S.V.; Starodubtsev, A.I. (). Energy and spectral characteristics of a repetitively pulsed NH<sub>3</sub> laser. KVEKA, no. 9, 1985, 1968-1969.
- i. Carbon Tetrafluoride
- j. Nitrous Oxide
- k. Water Vapor
- l. Heavy-Water Vapor
- m. Submillimeter
- n. Metal Vapor
- 94. Astadiov, D.N.; Petrash, G.G.; Sabotinov, N.V.; Vuchkov, N.K. (). Service life of a CuBr laser (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 191. (RZRAB, 85/10Ye51).
- 95. Gavrikova, N.N.; Demkin, V.N.; Kas'yan, V.G. (). Increase in radiation power stability of a helium-cadmium laser. ZPSBA, vol. 43, no. 3, 1985, 499-501.
- 96. Isayev, A.A.; Petrash, G.G.; Ponomarev, I.V. (FIAN). Relaxation of metastable atoms in the afterglow of copper vapor lasers. FIAN. Preprint, no. 271, 1985, 31 p.
- 97. Karasev, A.V.; Polishchuk, I.Ya.; Skovorod'ko, S.N.; Fomin, V.A.; Shpil'rayn, E.E. (IVTAN). Temperature distribution in a metal vapor laser chamber under e-beam pumping. IVTAN. Preprint, no. 5/165, 1985, 16 p. (RZFZA, 85/10L898).
- 98. Kazakov, V.V. (IOF). Decay kinetics of low operating levels in pulsed metal vapor laser. IOF. Dissertation, 1985, 14 p.
- 99. Malikov, M.M.; Fomin, V.A.; Shevchenko, A.L.; Shpil'rayn, E.E. (IVTAN). Self-pumping of the active medium of an electrical-discharge metal vapor laser. TVYTA, no. 5, 1985, 966-971.

100. Znamenskiy, N.V.; Lutsenko, A.P.; Piskarev, M.G. (). Stimulated IR radiation in rubidium vapors under resonance excitation of  $5(\text{sup}2)P(\text{sub}1/2,3/2)-7(\text{sup}2)S(\text{sub}1/2)$ . OPSPA, vol. 59, no. 4, 1985, 904-906.
- o. Gasdynamic
101. Biryukov, S.A.; Boreysho, A.S.; Zakharov, A.V.; Il'in, N.A.; Marchenko, V.M.; Militsyn, Yu.A.; Prokhorov, A.M.; Shelukhin, G.G. (IOF). Gas-dynamic laser utilizing carbon gasification by air. KVEKA, no. 10, 1985, 2158-2160.
102. Boreysho, A.S.; Koryakovskiy, A.S.; Marchenko, V.M.; Morozov, A.V.; Sokolov, V.E. (IOF). Optical quality of gas flows formed by nozzle assemblies of cellular honeycomb construction. ZTEFA, no. 10, 1985, 1943-1949.
103. Zhdanok, S.A.; Soloukhin, R.I.; Khizhnyak, S.M. (ITMO). Analytical theory of CO gasdynamic lasers and its bearing on the analysis of gasdynamic methods for obtaining population inversion in CO. ITMO. Preprint, no. 7, 1985, 25 p. (RZFZA, 85/9L851).

#### 4. Excimer

104. Baranov, V.Yu.; Borisov, V.M.; Vinokhodov, A.Yu.; Vysikaylo, F.I.; Gubarev, A.V.; Kiryukhin, Yu.B.; Kochetov, I.V.; Krayushkin, I.Ye.; Laptev, S.A.; Novikov, V.P.; Pechenova, O.I. (IAE). Periodic pulsed excimer lasers. Part 1. Results of experimental studies. IAE. Preprint, no. 4135/7, 1985, 35 p. (RZFZA, 85/10L871).
105. Baranov, V.Yu.; Borisov, V.M.; Vinokhodov, A.Yu.; Vysikaylo, F.I.; Gubarev, A.V.; Kiryukhin, Yu.B.; Kochetov, I.V.; Krayushkin, I.Ye.; Laptev, S.A.; Novikov, V.P.; Pechenova, O.I. (IAE). Periodic pulsed excimer lasers. Part 2. Computational and theoretical analysis of gas-discharge processes and gasdynamic perturbations. IAE. Preprint, no. 4136/7, 1985, 28 p. (RZFZA, 85/10L870).
106. Basov, N.G.; Batyrbekov, G.A.; Gizatulin, Sh.Kh.; Danilychev, V.A.; Ibragimov, Sh.Sh.; Kerimov, O.I.; Kostritsa, S.A.; Kuz'min, Yu.Ye.; Tleuzhanov, A.B.; Khasenov, M.U. (). Excimer laser ionization by nuclear reactor radiation. PZTFD, no. 17, 1985, 1044-1047.

107. Basov, N.G.; Zuyev, V.S.; Kanayev, A.V.; Mikheyev, L.D. (FIAN). Stimulated emission from an optically pumped Xe(sub2)Cl laser. KVEKA, no. 9, 1985, 1954-1955.
108. Bibinov, N.K.; Vinogradov, I.P. (LGU). Quantum yields of IBr(D'->A') luminescence during the photoexcitation of IBr vapors in a mixture with inert gases in the vacuum-ultraviolet region of the spectrum. KHVKA, no. 5, 1985, 429-433.
109. Bychkov, Yu.I.; Vinnik, M.L.; Kovalenko, S.Ye.; Losev, V.F.; (ISE). Characteristics of stimulated emission from a XeCl laser with x-ray preionization under quasi-steady-state excitation conditions. KVEKA, no. 10, 1985, 2174-2176.
110. Khaltakov, I.V.; Khristov, Kh.G.; Tomov, I.V.; Lyutskanov, V.L. (). Generation of subnanosecond pulses by excimer lasers using a saturable absorber (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 171. (RZRAB, 85/10Ye46).

## 5. Dye Vapor

### D. CHEMICAL LASERS

#### 1. Miscellaneous

111. Barmashenko, B.D.; Kochelap, V.A.; Mel'nikov, L.Yu. (IPANUK). Spray type singlet oxygen generator. KVEKA, no. 10, 1985, 2042-2051.
112. Vagin, N.P.; Kryukov, P.G.; Yuryshev, N.N. (FIAN). Splash type singlet oxygen chemical generator. KVEKA, no. 9, 1985, 1921-1925.

#### 2. Fluorine + Hydrogen

#### 3. Photodissociation

113. Gordon, Ye.B.; Nadkhin, A.I.; Sotnichenko, S.A. (IKhF). Photodissociative chemical bromine laser. KVEKA, no. 9, 1985, 1914-1920.
114. Pravilov, A.M.; Sidorov, I.I.; Skorokhodov, V.A. (NIIFL). Photorecombination of I((sup2)P(sub1/2)) atoms with C(sub3)F(sub7) and CF(sub3)CF(sub3) radicals. KNKTA, no. 5, 1985, 1044-1049.

115. Yelokhin, V.A.; Ivanov, V.S.; Pravilov, A.M.; Ryabov, S.Ye. (NIIFL). Photodecay processes of certain perfluoralkyliodides in the VUV spectral region. KVEKA, no. 9, 1985, 1975-1977.

4. Transfer

5. Oxygen + Iodine

116. Barmashenko, B.D.; Kochelap, V.A.; Mel'nikov, L.Yu. (IPANUK). Spray-type singlet oxygen generator. KVELA, no. 29, 1985, 3-11.

6. Carbon Disulfide + Oxygen

117. Kozlov, G.I.; Snytserev, V.V. (IPMe). Numerical study on a CO supersonic chemical mixing laser. IPMe. Preprint, no. 239, 1984, 68 p. (RZRAB, 85/9Ye80).

7. Sulfur Hexafluoride + Hydrogen

E. COMPONENTS

1. Miscellaneous

2. Resonators

a. Design and Performance

118. Kruzhalov, S.V.; Parfenov, V.A.; Pakhomov, L.N.; Petrun'kin, V.Yu. (LPI). Optical valve in the resonator of a YAG:Nd laser. ZTEFA, no. 10, 1985, 1950-1954.
119. Lyubimov, V.V. (). Effect of light scattering on open-cavity modes. OPSPA, vol. 59, no. 4, 1985, 861-864.
120. Marchenko, V.G. (). Fields of open optical wide-aperture resonators formed by concave and convex mirrors. RAELA, no. 7, 1985, 1257-1266.
121. Patek, M.; Khapalyuk, A.P. (). Optical resonator filled with a longitudinal-nonuniform lense-like medium. RAELA, no. 10, 1985, 1895-1900.
122. Sardyko, V.I. (IFANB). Ring laser. OTIZD, no. 39, 1985, 698468.
123. Vasil, Y.S.; Nenchev, M.N. (). Waveguide laser. Author's Certificate Bulgaria, no. 34437, 30 Sep 1983. (RZRAB, 85/9Ye383).

124. Vedlin, B. (). Dynamic stability of laser resonators (in Slovenian). ELVEA, no. 3, 1984, 101-104. (RZRAB, 85/10Ye385).
125. Vertiy, A.A.; Gavrilov, S.P.; Derkach, V.N.; Shestopalov, V.P. (IRFEANUK). Study on the properties of a quasi-optic open resonator with a composite input reflector. IRFEANUK. Preprint, no. 250, 1984, 40 p. (RZRAB, 85/9Ye512).
126. Volkov, L.I.; Mukha, V.V.; Oseledchik, Yu.S. (). Nonlinear optical resonator excited by a stochastic field. Mnogochastichnyye efekty v atomakh. Moskva, 1985, 171-186. (RZFZA, 85/10L971).
127. Zakharov, M.I.; Prilepskikh, V.D. (). Amplitude-frequency characteristics of a multiple beam anisotropic interferometer. AVMEB, no. 5, 1985, 83-88.
128. Zaripov, Sh.Kh. (KaGU). Thermo-optic distortions in unstable resonators for gas lasers. VINITI. Deposit, no. 4835-85, 5 Jul 1985, 15 p. (RZFZA, 85/10L973).
- b. Mode Kinetics
129. Gapotchenko, N.I.; Likhanskiy, V.V.; Napartovich, A.P. (IAE). Effect of frequency scanning on lasing in pulsed lasers with injection of an external signal. KVEKA, no. 10, 1985, 2065-2070.
130. Markin, A.S.; Studenov, V.B. (MIREA). Dynamics of eigenmodes in a complex resonator with thermal change in the optical length. VINITI. Deposit, no. 4272-85, 17 Jun 1985, 9 p. (RZRAB, 85/9Ye511).

### 3. Pump Sources

131. Adam, F. (). Miniature laser power supply. Patent Hungary, no. 179914, 31 May 1984. (RZRAB, 85/9Ye550).
132. Batanov, G.M.; Gritsinin, S.I.; Kossyy, I.A.; Magunov, A.N.; Silakov, V.P.; Tarasova, N.M. (FIAN). High-pressure microwave discharges. FIAN. Trudy, 160, 1985, 174-203. (RZRAB, 85/10Ye403).
133. Domelunksen, V.G.; Kotlikov, Ye.N.; Khryashchev, L.Yu.; Khryashcheva, A.V. (). Effect of optical pumping on the cyclic recurrence of interaction between atomic sodium and monochromatic radiation. OPSPA, vol. 59, no. 4, 1985, 755-759.

134. Gorbachev, M.N.; Zakrevskiy, S.I. (IED). Controlled power source for an ion laser. ELKTA, no. 10, 1985, 10-12.
135. Kolpakova, I.V. (GOI). Effect of potassium vapor pressure on the characteristics of potassium-arc lamps. OPMPA, no. 10, 1985, 44-47.
136. Luenkemann, B. (). Method for extending the service life of gas laser tubes. Patent GDR, no. 217940, 23 Jan 1985. (RZRAB, 85/9Ye568).
137. Pelipenko, V.P.; Dzyubenko, M.I.; Shevchenko, V.V. (IRFEANUK). Study on high-power microsecond electric discharges in coaxial flashlamps. IRFEANUK. Preprint, no. 242, 1984, 47 p. (RZRAB, 85/9Ye722).
138. Todorov, T.V.; Kulaksuzov, P.I.; Serbezov, B.S. (). Module system for gas-discharge tubes. Author's certificate Bulgaria, no. 35300, 30 Dec 1982. (RZRAB, 85/9Ye571).

#### 4. Cooling Systems

139. Westphal, K.D.; Moench, H.; Sekowski, B.; Spickermann, G. (). Device of thermoelectric coolers in a laser module. Patent GDR, no. 218224, 30 Jan 1985. (RZRAB, 85/9Ye553).
140. Westphal, K.D.; Moench, H.; Sekowski, B.; Spickermann, G. (). Device of thermoelectric coolers in a laser module. Patent GDR, no. 218223, 30 Jan 1985. (RZRAB, 85/9Ye554).

#### 5. Deflectors

141. Yurchikov, B.M. (). Device for discrete deflection of a light beam. OTIZD, no. 36, 1985, 444492.

#### 6. Attenuators

142. Oleynikov, A.D.; Pershakov, V.V. (). Variable fiberoptic attenuator. OTIZD, no. 38, 1984, 1118944. (RZRAB, 85/9Ye469).

#### 7. Collimators

143. Mityko, G. (). Method and device to measure divergence of an optical system for collimating laser radiation. Patent Romania, no. 83194, 28 Feb 1984. (RZRAB, 85/9Ye582).

## 8. Diffraction Gratings

144. Andriyesh, A.M.; Zhornik, V.P.; Mironos, A.V.; Smirnova, A.S. (IPFANM). Change in diffraction efficiency of grating structures formed in thin films of chalcogenide vitreous semiconductors upon their exposure to neutron radiation. KVEKA, no. 9, 1985, 1948-1951.
145. Bakun, A.A.; Matveyev, B.A.; Smirnitskiy, V.B.; Stus', N.M.; Talalakin, G.N. (FTI). Concave diffraction gratings on the surface of monocrystals. PZTFD, no. 19, 1985, 1172-1175.
146. Grimblatov, V.M.; Kalinichenko, L.F.; Salistra, G.I. (). Method for obtaining a dynamic volume diffraction grating. OTIZD, no. 9, 1985, 1144074. (RZRAB, 85/9Ye681).
147. Guether, R. (). Equivalent grating configurations for concave holographic gratings. OPAPB, no. 4, 1984, 429-442. (RZFZA, 85/10L512).

## 9. Focusers

148. Bauer, J.; Burghoff, U.; Riese, B.; Voigt, P. (). Electrooptic phase grating for focusing of laser light in flat waveguides. Patent GDR, no. 212117, 1 Aug 1984. (RZRAB, 85/9Ye308).

## 10. Windows

## 11. Polarizers

149. Sardyko, V.I. (IFANB). Laser [with polarizers]. OTIZD, no. 39, 1985, 813570.

## 12. Beam Shapers

## 13. Lenses

150. Kalinina, O.D.; Natarovskiy, S.N.; Tsukanov, A.A. (). Performance of a laser with a complex lens-raster system. IVUBA, no. 5, 1985, 66-69. (RZRAB, 85/9Ye573).
151. Westphal, K.D.; Bohrisch, H.J. (). Device for coupling a cylindrical lens to an electrooptic element. Patent GDR, no. 219593, 6 Mar 1985. (RZRAB, 85/10Ye214).

#### 14. Filters

152. Golubkova, M.N.; Mayorov, S.A.; Ochin, Ye.F. (). Double phase coding of spatial frequency filters. IVUZB, no. 9, 1985, 73-75.
153. Kim, I.S.; Uvakina, V.F. (IZMIRAN). Characteristics of modern narrowband interference filters. IZMIRAN. Preprint, no. 13/546, 1985, 15 p. (RZFZA, 85/10L609).
154. Kucherenko, O.K.; Kamenchuk, A.I.; Kamenchuk, N.V. (KPIA). Calculations for a beam-splitting dielectric mirror. KPIA. Vestnik. Seriya priborostroyeniye, no. 15, 1985, 48-50. (RZFZA, 85/10Zh403).

#### 15. Beam Splitters

155. Sardyko, V.I. (IFANB). Method for splitting opposed waves in a ring laser. OTIZD, no. 39, 1985, 716480.
156. Slavnin, M.G.; Shtykhno, V.V. (MEI). Optical device for splitting a light beam. OTIZD, no. 9, 1985, 1144080. (RZRAB, 85/9Ye551).

#### 16. Mirrors

157. Andronova, I.A.; Gusev, M.Yu.; Konoplev, Yu.N.; Mamayev, Yu.A.; Novikov, M.A.; Turkin, A.A. (IPF). Characteristics of a garnet magnetic mirror at 1.15  $\mu\text{m}$ . IVYRA, no. 3, 1985, 388-392.
158. Boutin, J.G.; Lippenyi, T. (). Thin film coated foil-mirror in a laser cavity (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 32. (RZRAB, 85/10Ye384).
159. Goldina, N.D.; Timofeyev, T.T. (). Comparison of the characteristic curves of the scattering of multilayered mirrors, obtained by electron beam vaporization and cathode sputtering. AVMEB, no. 5, 1985, 103-104.
160. Gorban', S.I.; Gutyantov, S.V.; Orlov, S.V.; Pervak, Yu.A.; Fekeshgazi, I.V. (IPANUK). Multilayer dielectric coatings for quantum electronics devices. KVELA, no. 29, 1985, 11-15.
161. Grishina, N.V.; Tikhonravov, A.V. (). Mirrors under oblique incidence of light. OPSPA, v. 58, no. 4, 1985, 900-904.



162. Haensch, G.; Wurlitzer, G.; Orlamuender, U. (). Output mirror for a laser. Patent GDR, no. 219592, 6 Mar 1985. (RZRAB, 85/9Ye539).
163. Konov, V.I.; Prokhorov, A.M.; Ral'chenko, V.G.; Stepanov, Yu.I.; Chapliyev, N.I.; Shirkov, A.V.; Shtanchayev, M.I. (FIAN). Laser oxidation and optical properties of implanted metallic mirrors. KRSFA, no. 9, 1985, 3-7.
164. Levitina, E.I.; Tatarinova, T.S.; Chekmarev, V.M.; Chernevskaya, E.G. (GOI). Metallodielectric light-absorbing coatings. OPMPA, no. 3, 1985, 38-41.
165. Plinski, E.F. (). Theoretical and experimental investigations on coupling-out mirrors with a hole for a c-w CO2 laser (in English). OPAPB, no. 3, 1984, 333-340. (RZRAB, 85/10Ye26).
166. Schmidt, E.; Schirmer, G.; Guhr, B.; Eckardt, P.; Koch, E.O. (). Leveling of lateral variations in width of oxide layers or layer systems [for laser mirrors]. Patent GDR, no. 211778, 25 Jul 1984. (RZRAB, 85/9Ye565).
167. Vinogradov, A.V.; Kozhevnikov, I.V. (). Translucent multilayer mirrors for the x-ray range. OPSPA, v. 58, no. 4, 1985, 895-899.
168. Vitrichenko, E.A.; Yevseyev, O.A.; Isayev, V.I.; Lapshin, V.I.; Leonov, V.N.; Potapov, Yu.A.; Prokhorov, A.M.; Sagdeyev, R.Z.; Salomonovich, A.Ye.; Trushin, Ye.V.; Fridlyander, I.N. (GOI). Study on the possibility of developing large-scale light-weight metal mirrors for the longwave IR range. OPMPA, no. 3, 1985, 13-16.

#### 17. Detectors

169. Fedorov, V.B.; Mityakov, V.G. (). Sensitivity of photodetectors in terms of Poisson and Gaussian photon statistics. RATEA, no. 4, 1985, 79-82. (RZRAB, 85/9Ye518).
170. Gitsu, D.V.; Ivanov, M.B.; Molodyan, I.P.; Popushoy, V.V.; Syrbu, A.V. (KPIA). Photodetection in injection laser amplifiers. ZTEFA, no. 9, 1985, 1773-1779.

171. Klochkov, V.P.; Potykevich, Ts.V. (). Photodetection systems for optical Doppler radars. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 281-312.
172. Kostyukevich, A.Ye.; Chukhrov, A.S. (NEIS). Optimal coherent detection with an unknown number of narrowband interferences. VINITI. Deposit, no. 4242-85, 17 Jun 1985, 11 p. (RZRAB, 85/9Ye523).
173. Nekrasov, L.P. (GOI). Narrowband devices for recording light. OPMPA, no. 4, 1985, 59-60.
174. Teplyakov, I.M. (). Signal and background noise at the output of a laser detector. RATEA, no. 4, 1985, 3-6. (RZRAB, 85/9Ye517).
175. Voinov, V.V.; Drokin, A.I.; Yefremov, V.G. (). Mechanism for enhancing the sensitivity of photodetectors. Fizika tverdogo tela, no. 15, Kiyev-Donetsk, 1985, 18-23. (RZFZA, 85/9L583).

#### 18. Modulators

176. Bauer, J.; Voigt, P.; Riese, B.; Merker, W. (). Acoustooptic modulator with reduced ultrasound reflection. Patent GDR, no. 218481, 6 Feb 1985. (RZRAB, 85/9Ye191).
177. Berezhinskiy, L.I.; Lipuga, A.I.; Malyutenko, V.K. (IPANUK). Controlling the parameters of laser radiation in the IR. KVELA, no. 29, 1985, 15-21.
178. Bernshteyn, V.M.; Ivanov, A.V.; Knyaz'kov, A.V.; Utkin, K.G. (LPI). Study on power stabilization of shortwave radiation at 0.44-0.49  $\mu\text{m}$  by PLZT ceramics. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIPTT. LatGU. Riga, 1985, 183-184.
179. Bezayeva, L.G.; Kaptsov, L.N.; Landa, P.S.; Kholodnykh, A.I. (). Mode locking in a YAG-Nd(sup3+) laser with loss modulation. OPSPA, vol. 59, no. 3, 1985, 618-625.
180. Bondarev, Ye.F.; Bystrov, Ye.M.; Gorobchenko, A.A.; Dombrovskiy, V.V.; Isayev, V.I.; Chernikov, I.A. (). Control device with an optical modulator. PRTEA, no. 5, 1985, 238.

181. Borkowska, A. (). Magneto optic diffraction and modulation in thin garnet films. PSSAB, v. A88, no. 2, 1985, 601-610. (RZFZA, 85/9L643).
182. Bykadorov, A.V.; Katsavets, N.I.; Leonov, Ye.I. (FTI). Linear operation of optical information recording in space-time light modulators based on sillenite. PZTFD, no. 19, 1985, 1193-1196.
183. Dem'yantseva, S.D.; Tabarin, V.A. (TyUGU). Internal magneto optic intensity modulation in a three-mirror laser. VINITI. Deposit, no. 3881-85, 4 June 1985, 15 p. (RZFZA, 85/9L931).
184. Gorodechnyy, B.V. (). Study and analysis of the operating characteristics of a photoelectric space-time light modulator. VINITI. Deposit, no. 4124-85, 11 Jun 1985, 19-23. (RZRAB, 85/9Ye815).
185. Myl'nikov, V.S.; Morozova, Ye.A.; Vasilenko, N.A.; Kotov, B.V.; Pravednikov, A.N. (). Space-time modulation of light by an organic polymer photodetector--liquid crystal structure. ZTEFA, no. 4, 1985, 749-751.
186. Rasch, A.; Buss, W.; Rottschalk, M.; Karthe, W. (). High-speed integrated optical Mach-Zehnder interferometer based on LiNbO<sub>3</sub>. NACHA, no. 4, 1985, 131-133. (RZFZA, 85/9L653).
187. Usenko, V.P.; Bologna, M.K.; Petrenko, R.A.; Nedbayev, N.Ya. (). Improving the parameters of laser passive phototropic liquid switches by electrohydrodynamic methods. EOBMA, no. 5, 1985, 49-52.
188. Vizner, A.A. (). Calculating the allowable displacement of an operating point for an electrooptic modulator in a digital information transmission system. RATEA, no. 4, 1985, 71-73. (RZRAB, 85/9Ye187).
189. Vladimirov, F.L.; Groznov, M.A.; Yeremenko, A.S.; Lan'kova, S.M.; Lyubimov, V.V.; Morichev, I.Ye.; Morozova, Ye.A.; Myl'nikov, V.S.; Orlov, S.Yu.; Pletneva, N.I.; Pokrovskiy, V.P.; Soms, I.N. (). Optical signal conversion in a laser with an intracavity liquid crystal spatial light modulator. KVEKA, no. 10, 1985, 2071-2076.
190. Wiederhold, G.; Zschocke, W. (). Method and device for stable mode locking in a pulsed laser. Patent GDR, no. 218717, 13 Feb 1985. (RZRAB, 85/9Ye176).

191. Zartov, G.; Peyeva, R.; Antonova, K.; Zafirova, B.; Panayotov, K. (). Absorbing multilayer systems and their application for laser light modulation (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 27-28. (RZRAB, 85/10Ye129).
192. Zartov, G.D.; Peyeva, R.A.; Panayotov, K.P. (). Polarization effects in multilayer interference laser light modulators (in English). CRABA, no. 1, 1985, 55-58. (RZFZA, 85/9L645).

F. NONLINEAR OPTICS

1. General Theory

193. Akopyan, R.S. (). Critical behavior of orientational optical nonlinearity of a nematic liquid crystal flowing along an inclined plane. IAAFA, no. 2, 1985, 91-95. (RZFZA, 85/10L1013).
194. Al'tshuler, G.B. (LITMO). Nonlinear scattering in heterogeneous media. Poluchenije, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFFT. LatGU. Riga, 1985, 11-13.
195. Amiryan, A.S.; Grigoryan, V.G. (). Role of various nonlinear mechanisms limiting the growth of the number of parametrically excited phonons. IAAFA, no. 1, 1985, 13-17. (RZRAB, 85/9Ye725).
196. Arakelyan, S.M.; Aslanyan, L.S.; Grigoryan, G.L.; Nersisyan, S.Ts.; Chilingaryan, Yu.S. (). Optical bistability in the excitation of surface plasmons at a metal--nematic liquid crystal boundary. IANFA, no. 4, 1985, 795-800. (RZFZA, 85/9L971).
197. Areshev, I.P. (FTI). Transmission of intense light by a plane-parallel semiconductor plate in the presence of nonlinear absorption and refraction. FTTPA, no. 3, 1985, 729-734.
198. Areshev, I.P.; Subashiyev, V.K.; Faradzhev, B.G. (). Study on nonlinear optical absorption and nonlinear refraction in silicon. FTVTA, no. 3, 1985, 695-669. (RZFZA, 85/9L945).
199. Averbukh, I.Sh.; Perel'man, N.F. (IPFANM). Quasi-energy and optical spectra of two-level systems in a low-frequency field of arbitrary strength. ZETFA, v. 88, no. 4, 1985, 1131-1146.

200. Aver'yanov, Ye.M. (). Structural and optical anisotropy of liquid crystals with flexible molecules. Nelineynaya optika i spektroskopiya molekulyarnykh sred. IFSOAN. Krasnoyarsk, 1984, 51-61. (RZFZA, 85/10L304).
201. Belyayev, M.V.; Mayorov, A.P.; Smirnov, V.A.; Chebotayev, V.P. (ITF). Selective laser heating and nonlinear scattering of light in a homogeneous medium. ZFPRA, vol. 42, no. 8, 1985, 338-340.
202. Benedict, M.G.; Gyemant, I. (). Interaction of an ultrashort light pulse with a thin resonant medium (in English). APYCA, no. 3-4, 1984, 115-119. (RZFZA, 85/10L1069).
203. Bol'shinskiy, L.G.; Lomtev, A.I. (DFTI). Strongly nonlinear S-polarized surface waves. PZTFD, no. 6, 1985, 358-361.
204. Darbinyan, S.M.; Ispiryan, K.A. (). Coherent splitting of a photon into two photons in single crystals. CVSFVZCh, 14th, Moskva, 5-7 Jun 1984. Materialy. MGU. Moskva, 1985, 111-113. (RZFZA, 85/10L827).
205. Dubetskiy, B.Ya.; Kazantsev, A.P.; Chebotayev, V.P.; Yakovlev, V.P. (ITF). Interference of atoms and generation of atomic spatial lattices in light fields. ITF. Preprint, no. 115, 1984, 8 p. (RZFZA, 85/10L799).
206. Finkel'shteyn, V.Yu. (). Dynamics of excitation of a band of levels in an external resonance field. ZETFA, v. 88, no. 5, 1985, 1527-1546.
207. Gerasimov, B.P.; Yelizarova, T.G. (IPM). Numerical study of convection effect on light beam propagation. DANKA, vol. 284, no. 5, 1985, 1098-1100.
208. Golubev, G.P.; Dneprovskiy, V.S.; Kovalyuk, Z.D.; Stadnik, V.A. (MGU). Optical multistability in semiconductors. PZTFD, no. 5, 1985, 257-260.
209. Gorbunov, L.M.; Solikhov, D.K. (FIAN). Effect of the nonmonochromaticity of a pumping wave on decay instabilities in a plasma. IVYRA, no. 5, 1985, 585-593.
210. Irimescu, D.; Popescu, I.M.; Puscas, N.N.; Sterian, P.E. (). Frequency dependence and nonlinear susceptibility of the seventh order for lithium and sodium vapors (in Romanian). BPBEE, v. 45, no. not given, 1983, 18-20. (RZFZA, 85/10L991).

211. Ivanova, N.A.; Rubanov, A.S.; Tolstik, A.L.; Chaley, A.V. (). Effect of Stokes displacement of absorption and emission bands on optical bistability in the Fabry-Perot interferometer. ZPSBA, vol. 43, no. 3, 1985, 435-439.
212. Kabanov, I.S.; Kabanova, V.G. (). Nonlinear optical susceptibility of crystals with molecular groups. Nelineynaya optika i spektroskopiya molekulyarnykh sred. IFSOAN. Krasnoyarsk, 1984, 191-214. (RZFZA, 85/10L992).
213. Kapeniyeks, A.E.; Kundzin'sh, M.A.; Bobrovskaya, I.P.; Chepilko, A.G.; Liberts, G.V.; Kremenchugskiy, L.S. (NIIFTT; IFANUK). Pyroelectric, nonlinear optic and dielectric properties of PLZT ceramics in strong electric fields. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 102-104.
214. Khizhnyakov, V.; Rozman, M. (). Quantum rotation of the polarization of laser radiation by a two-level atom. ETFMB, no. 2, 1985, 226-228. (RZFZA, 85/10L814).
215. Kochelap, V.A.; Sokolov, V.N. (IPANUK). Threshold effects in light absorption due to the dependence of the spectra on the level of excitation. KVELA, no. 29, 1985, 60-70.
216. Korneyev, A.A.; Osadchiyev, V.M.; Pozdnyakov, S.G. (MIFI). Optical stability of dielectrics using overthreshold laser impulses. DANKA, vol. 284, no. 3, 1985, 582-586.
217. Kuz'min, V.S.; Sayko, A.P. (). Transient Jahn-Teller radiation from atoms in ion crystals. ZPSBA, v. 42, no. 3, 1985, 466-472.
218. Kuznetsov, V.M.; Rubanov, V.S.; Svirina, L.P.; Severikov, V.N. (IFANB). Photoinduced nonmutuality. IFANB. Preprint, no. 360, 1985, 49 p. (RZFZA, 85/9L800).
219. Kuznetsov, V.M.; Rubanov, V.S.; Svirina, L.P.; Severikov, V.N. (). Photoinduced optical nonmutuality. Lazery i opticheskaya nelineynost'. IFANB. Minsk, 1984, 164-176. (RZFZA, 85/9L801).

220. Liberts, G.V.; Kundzin'sh, M.A.; Zauls, V.A.; Tsirule, I.Kh. (NIIFFT). Nonlinear optical study on transparent PLZT ceramics. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFFT. LatGU. Riga, 1985, 70-71.
221. Lisitsa, M.P.; Boyko, S.A.; Valakh, M.Ya.; Dykman, M.I.; Rud'ko, G.Yu.; Tarasov, G.G.; Shpak, A.M. (IPANuk). New nonlinear optical effects in the region of resonance impurity absorption in cubic crystals. KVELA, no. 29, 1985, 29-36.
222. Lyaptsev, A.V.; Zuyev, A.N. (). Hyperfine structure of quasi-energy levels of an atom in magnetic and resonance electromagnetic fields. OPSPA, v. 58, no. 5, 1985, 970-977.
223. Molotkov, I.A.; Vakulenko, S.A. (LGU). Evolution of a wave beam in an inhomogeneous and strongly nonlinear medium. LGU. Vestnik, no. 11, 1985, 10-15. (RZFZA, 85/10L1063).
224. Oseledchik, Yu.S.; Tolok, V.A. (). Optical multistability of resonant media in a Markov random field. OPSPA, vol. 59, no. 4, 1985, 883-887.
225. Ovechko, V.S.; Amerov, A.K. (). Solitons in a square-law nonlinear medium with polariton-type dispersion. UFZHA, no. 3, 1985, 340-343. (RZFZA, 85/9L969).
226. Petrov, N.S.; Shakin, V.A. (IFTTP). Correct conditions for unambiguity in the boundary problem of the reflection of light by a nonlinear medium with negative nonlinearity. ZTEFA, no. 4, 1985, 747-749.
227. Popov, I.I.; Samartsev, V.V.; Trayber, A.S.; Shagidullin, A.G. (MarGU). Signal shape of "blocked out" and "double humped" light echoes. VINITI. Deposit, no. 4916-83, 8 Jul 1985, 11 p. (RZFZA, 85/10L804).
228. Rud'ko, G.Yu.; Sidorenko, V.I.; Svirgun, V.P. (). Self-induced rotation of the plane of polarization in the degenerated absorption band of F(sub a) centers in KCl crystals. PSSAB, v. A88, no. 2, 1985, 625-630. (RZFZA, 85/9L946).
229. Shmelev, V.M.; Margolin, A.D. (). Optical instability in molecular gases under nonisothermal conditions. KHFID, no. 7, 1985, 873-879. (RZFZA, 85/10L1009).

230. Tabiryan, N.V. (). Photoinduced Fredericks transition in turbid layers of nematic liquid crystal. OPSPA, v. 58, no. 5, 1985, 1142-1143.
231. Vartanyan, T.A. (GOI). Oscillations of nonlinear transmission in a rarefied resonant gas as evidence of optical nutation under steady-state conditions. ZFPRA, v. 41, no. 7, 1985, 297-299.
232. Vlasenko, Yu.V.; Lisitsa, M.P.; Fekeshgazi, I.V. (IPANUK). Nonlinear optical properties of CdP(sub2) and ZnP(sub2) gyrotropic crystals. KVELA, no. 29, 1985, 36-48.
233. Yeremko, A.A.; Gaydidey, Yu.B.; Vakhnenko, A.A. (). Dissociation-accompanied Raman scattering by Davydov solitons. PSSBB, v. B127, no. 2, 1985, 703-713. (RZFZA, 85/9L243).
234. Zemlyanov, A.A.; Sinev, S.N. (IOA). Self-action of a partially coherent beam under large parameters of nonlinearity. IOA. Preprint, no. 29, 1984, 26 p. (RZFZA, 85/9L974).
235. Zemskov, K.I.; Kazaryan, M.A.; Petrash, G.G. (FIAN). Visualization of intensified infrared images under nonlinear interaction of beams in saturated amplifiers. ZFPRA, vol. 42, no. 6, 1985, 260-262.

## 2. Frequency Conversion

236. Akhmediyev, N.N.; Novak, V.R. (). Increasing the efficiency of nonlinear optical mode conversion in thin-film waveguides. OPSPA, v. 58, no. 4, 1985, 913-915.
237. Aktsipetrov, O.A.; Akhmediyev, N.N.; Baranova, I.M.; Mishina, Ye.D.; Novak, V.R. (MGU). Investigation of the structure of Langmuir films by the technique of generation of the reflected second harmonic. ZETFA, vol. 89, no. 3, 1985, 911-921.
238. Andreyev, A.A.; Gorokhov, A.A.; Mikhaylov, A.B.; Solov'yev, N.A.; Charukhchev, A.V. (). Spectrum of the second harmonic of laser radiation generated in an unstable plasma. OPSPA, v. 59, no. 4, 1985, 847-850.
239. Berezhnoy, A.A.; Gurevich, V.Z. (). Space phase modulation of nonpolarized light based on a photorefractive effect in crystals. ZETFA, no. 10, 1985, 2086-2088.



240. Malyavkin, L.P.; Nikolayev, I.V.; Sil'kis, E.G.; Timov, V.D. (). Automated device for the measurement of single electron and noise characteristics of electrooptic converters. PRTEA, no. 5, 1985, 232-233.
241. Oseledchik, Yu.S. (). Bifurcations in resonance harmonic generation. OPSPA, vol. 59, no. 3, 1985, 637-642.
242. Pirogova, I.Yu.; Sukhorukov, A.P. (). Effect of nonlinear wave coupling dispersion on frequency doubling of subpicosecond light pulses. OPSPA, vol. 59, no. 3, 1985, 694-696.
243. Popescu, I.M.; Puscas, N.N.; Sterian, P.E.; Irimescu, D. (). Model of the seventh harmonic generation by two-photon resonant absorption in nonlinear media (in English). RRPQA, no. 9, 1984, 807-813. (RZFZA, 85/9L952).
244. Tagiyev, Z.A. (). Phase effects in the approximation of prescribed intensity with second harmonic generation in a cavity. ZPSBA, vol. 43, no. 3, 1985, 505-508.
245. Vasilenko, L.S.; Razvalyayev, V.N.; Shishayev, A.V. (ITF). Analysis of the possibilities for nonlinear optical generation of 243 nm radiation. ITF. Preprint, no. 126, 1985, 17 p. (RZFZA, 85/10L1015).
246. Yermakov, V.P.; Vtyurin, A.N. (). Second harmonic generation in ferroelectric liquid crystal. Nelineynaya optika i spektroskopiya molekulyarnykh sred. IFSOAN. Krasnoyarsk, 1984, 40-51. (RZFZA, 85/10L1016).

### 3. Parametric Processes

247. Korniyenko, N.Ye.; Fedorchenko, A.M. (). Effect of parametric processes on electronic stimulated Raman scattering. OPSPA, vol. 59, no. 4, 1985, 920-923.
248. Malygin, A.A.; Penin, A.N.; Sergiyenko, A.V. (). Space-time photon bunching in spontaneous parametric light scattering. DANKA, v. 281, no. 2, 1985, 308-313. (RZFZA, 85/9L793).
249. Petrov, M.P.; Paugurt, A.P.; Pleshakov, I.V.; Ivanov, A.V. (FTI). Magneto-elastic oscillation and parametric echo in thin plastic FeBO(sub3). PZTFD, no. 19, 1985, 1204-1207.

250. Piskarskas, A.; Stabinis, A.; Yankauskas, A. (VilGU). Parametric frequency modulation of picosecond light pulses in quadratically nonlinear crystals. KVEKA, no. 9, 1985, 1781-1783.
251. Vasilyauskas, V.; Stabinis, A. (VilGU). Parametric amplification of spreading light pulses in media with quadratic nonlinearity. KVEKA, no. 9, 1985, 1881-1889.

#### 4. Stimulated Scattering

##### a. Miscellaneous Scattering

##### b. Raman

252. Andryunas, K.; Vishchakas, Yu.; Kabelka, V.; Mochalov, I.V.; Pavlyuk, A.A.; Petrovskiy, G.T.; Syrus, V. (IFANLi). Stimulated Raman scattering self-conversion of Nd<sup>3+</sup> laser radiation in crystals of binary tungsten. ZFPRA, vol. 42, no. 8, 1985, 333-335.
253. Badanyan, N.Sh. (). Theory of transient resonance stimulated electronic Raman scattering with consideration of magnetic structure of atoms and wave polarization. OPSPA, vol. 59, no. 3, 1985, 675-677.
254. Baranov, A.V. (). Enhanced Raman scattering of perylene: contribution of natural molecular resonance. OPSPA, vol. 59, no. 3, 1985, 540-544.
255. Basharov, A.M. (). Raman scattering stimulated by radiational collisions. OPSPA, vol. 59, no. 4, 1985, 721-723.
256. Bepalov, V.G.; Krylov, V.N.; Stasel'ko, D.I. (). Efficient generation of stimulated Raman scattering in blue and dark blue spectral regions. OPSPA, vol. 59, no. 3, 1985, 486-488.
257. Shcherbakov, I.V. (). Using stimulated Raman scattering to study nonequilibrium parameters of semiconductors. FTVTA, no. 12, 1984, 3661-3663. (RZFZA, 85/9L1041).
258. Soldak, G.V. (MFTI). Analytical study on pulse interaction in opposed stimulated Raman scattering. VINITI. Deposit, no. 4652-85, 27 Jun 1985, 8 p. (RZFZA, 85/10L1032).
259. Zabolotskaya, Ye.A. (IOF). Interaction of the sum and difference components in stimulated Raman sound scattering by bubbles. AKZHA, no. 5, 1985, 601-605.

c. Brillouin

260. Buzyalis, R.R.; Dement'yev, A.S.; Kosenko, Ye.K. (IFANLi). Formation of subnanosecond pulses under stimulated Brillouin scattering of repetitively pulsed YAG-Nd laser radiation. KVEKA, no. 10, 1985, 2024-2028.
261. Ivchenko, Ye.L.; Sobirov, M.M. (). Spectrum of two-phonon Brillouin backscattering. FTVTA, no. 4, 1985, 1096-1104. (RZFZA, 85/9L966).
262. Muravitskiy, M.I.; Lozovenko, A.Ye.; Ignat'yev, V.G. (). Stimulated light scattering in KDP crystals. ZPSBA, vol. 43, no. 3, 1985, 515.
263. Zel'dovich, B.Ya.; Izotov, A.,N.; Kapitskiy, Yu.Ye.; Krivoshchekov, V.A.; Mamayev, A, V.; Mel'nikov, N.A.; Pilipetskiy, N.F.; Tabrin, V.N.; Shevelevich, R.S.; Shkunov, V.V. (IPMe). Stimulated Brillouin scattering in gain medium. KVEKA, no. 9, 1985, 1957-1958.
264. Zozulya, A.A.; Silin, V.P.; Tikhonchuk, V.T.; Chegotov, M.V. (FIAN). Double stimulated Brillouin scattering in a nonuniform plasma. FIPLD, no. 9, 1985, 1071-1079.

d. Rayleigh

5. Self-focusing

265. Basov, N.G.; Danilychev, V.A.; Rudoy, I.G.; Soroka, A.M. (FIAN). Kinetic self-focusing of CO<sub>2</sub> laser radiation in air. DANKA, vol. 284, no. 6, 1985, 1346-1349.
266. Zolot'ko, A.S. (FIAN). Orientational aberrational self-focusing in nematic liquid crystals. FIAN. Dissertation, 1985, 22 p.

6. Acoustic Interaction

267. Balagurov, A.Ya.; Dorofeyev, O.A.; Zvereva, S.G. (). Calculating the efficiency of planar acoustooptic interaction of TE modes in anisotropic waveguides in terms of the Green function. Mikroelektronnyye sistemy i SVCh ustroystva. MIET. Moskva, 1984, 41-49. (RZFZA, 85/9P121).

268. Betin, A.A.; Mitropol'skiy, O.V.; Novikov, V.P.; Novikov, M.A. (IPF). Optical losses in infrared optical materials by a laser optico-acoustic method. KVEKA, no. 9, 1985, 1856-1862.
269. Burlak, G.N.; Grimal'skiy, V.V.; Kotsarenko, N.Ya. (). Acoustoelectromagnetic solitons in optically anisotropic crystals. FTVTA, no. 3, 1985, 631-635. (RZFZA, 85/10L382).
270. Karabutov, A.A.; Omel'chuk, N.N.; Rudenko, O.V.; Chupryna, V.A. (MGU). Quantitative study on nonlinear transformation of sound pulses in a liquid under thermo-optic excitation. VMUFA, no. 3, 1985, 62-66. (RZFZA, 85/10I85).
271. Kulak, G.V.; Mityurich, G.S. (). Diffraction of partially polarized light by ultrasonic vibrations. VINITI. Deposit, no. 5205-85, 18 Jul 1985, 9 p. (RZFZA, 85/10L19).
272. Naumov, K.P.; Odintsov, A.Yu. (LETI). Acoustooptic method for demodulation of phase-keyed signals. OTIZD, no. 10, 1985, 786571. (RZRAB, 85/9Ye535).
273. Pozhar, V.E.; Pustovoyt, V.I. (VNIFTRI). Successive collinear light diffraction in several acoustooptic cells. KVEKA, no. 10, 1985, 2180-2182.
274. Sharangovich, S.N. (). Anomalous wide-band light diffraction from a focused acoustic beam. OPSPA, vol. 59, no. 4, 1985, 835-840.
275. Zadorin, A.S.; Sharangovich, S.N. (). Study of acoustooptical interaction under conditions of phase mismatch. OPSPA, vol. 59, no. 3, 1985, 592-596.
- G. SPECTROSCOPY OF LASER MATERIALS
276. Belyy, M.U.; Kolesnik, A.S.; Naulik, L.R.; Okhrimenko, B.A.; Yashchuk, V.P. (KGU). Study on the spectra of optically induced absorption in thallium complexes. UFZHA, no. 9, 1985, 1328-1330.
277. Prokhorenko, V.I.; Melishchuk, M.V.; Tikhonov, Ye.A. (IFANUK). Nonlinear absorption spectroscopy of polymethine dyes at 1.064  $\mu\text{m}$ . UFZHA, no. 10, 1985, 1480-1488.

#### H. ULTRASHORT PULSE GENERATION

278. Basov, N.G.; Pozhar, V.E.; Pustovoyt, V.I. (FIAN; VNIFTRI). Measurement of the duration of high-power ultrashort light pulses. KVEKA, no. 10, 1985, 2169-2171.
279. Dianov, Ye.M.; Karasik, A.Ya.; Mamyshev, P.V.; Prokhorov, A.M.; Serkin, V.N. (). Formation of ultrashort pulses by the spectral filtration technique under stimulated combination scattering in fiber light guides. ZETFA, vol. 89, no. 3, 1985, 781-795.
280. Katarkevich, V.M.; Rubinov, A.N.; Efendiyev, T.Sh. (). Generation of tunable ultrashort pulses in the ultraviolet by an N<sub>2</sub>-laser pumped distributed feedback dye laser. ZPSBA, vol. 43, no. 4, 1985, 559-562.
281. Petrosyan, K.B.; Pokhsraryan, K.M. (). Ultrashort pulse generation in the 220-266 nm range in potassium pentaborate crystal. IAAFA, no. 1, 1985, 39-42. (RZRAB, 85/9Ye103).
282. Taranukhin, V.D. (MGU). Shortening of picosecond IR radiation pulses in semiconductors. KVEKA, no. 10, 1985, 1995-1996.

#### J. CRYSTAL GROWING

283. Gorashchenko, N.G.; Kuchuk, Zh.S.; Mayyer, A.A. (MKhTI). Growing of single crystals with a sillenite structure for use in optoelectronics. MKhTI. Trudy, no. 133, 1984, 15-21. (RZRAB, 85/9Ye110).
284. Leonyuk, N.I.; Leonyuk, L.I. (MKhTI). Physicochemical and crystal chemical fundamentals in the growing of refractory borate single crystals for quantum electronics. MKhTI. Trudy, no. 133, 1984, 27-37. (RZFZA, 85/10L598).

#### K. THEORETICAL ASPECTS OF ADVANCED LASERS

285. Alferov, D.F.; Bashmakov, Yu.A. (FIAN). Effect of angular beam spread on free electron laser gain. KVEKA, no. 9, 1985, 1926-1931.
286. Alferov, D.F.; Bashmakov, Yu.A. (FIAN). Spectral-angular characteristics of the radiation of a relativistic charged particle beam in an undulator. Part 1. ZTEFA, no. 5, 1985, 829-834.

287. Alferov, D.F.; Bashmakov, Yu.A. (FIAN). Spectral-angular characteristics of radiation from a relativistic charged particle beam in an undulator. Part 2. ZTEFA, no. 6, 1985, 1090-1098.
288. Baryshevskiy, V.G.; Feranchuk, I.D. (). Quantum theory of x-ray parametric oscillators, allowing for multiwave diffraction. VBSFA, no. 2, 1985, 79-86. (RZFZA, 85/10L955).

L. GENERAL LASER THEORY

289. Abrashin, V.N.; Afanas'yev, A.A.; Veremeyenko, T.V.; Korol'kov, M.V. (IFANB). Non-steady-state lasing in a laser with dynamic distributed feedback. IFANB. Preprint, no. 366, 1985, 27 p. (RZFZA, 85/10L838).
290. Afanas'yev, A.A.; Korol'kov, M.V. (IFANB). Spectral threshold characteristics of lasers with dynamic distributed feedback. IFANB. Preprint, no. 363, 1985, 45 p. (RZFZA, 85/9L808).
291. Apanasevich, P.A.; Afanas'yev, A.A. (IFANB). Method for amplification of radiation in resonantly absorbing media. OTIZD, no. 39, 1985, 766501.
292. Apollonov, V.V.; Baytsur, G.G.; Prokhorov, A.M.; Firsov, K.N. (IOF). Formation of a volumetric self-maintained discharge in dense gases with a large interelectrode spacing. PZTFD, no. 20, 1985, 1262-1267.
293. Avetisov, V.A.; Anikin, S.A. (NIIBIKhS). Behavior of an optically active substance in a Dicke extended model. DANKA, vol. 284, no. 3, 1985, 580-582.
294. Dmitriyev, A.Ye.; Parshkov, O.M.; Silkina, T.G. (). Theory of steady-state two-center oscillation in radiative excitation transfer between active centers. OPSPA, vol. 59, no. 4, 1985, 851-855.
295. Grinchenko, B.I. (IVTAN). Mechanisms for forming population inversion in recombination lasers. IVTAN. Preprint, no. 5/155, 1985, 72 p. (RZFZA, 85/10L887).
296. Krylova, D.D. (MIFI). Influence of the quadratic Doppler effect on dispersion resonance shift in the transit limit. KVEKA, no. 9, 1985, 1962-1964.
297. Nikolayev, G.N. (IAESOAN). Coherent transient magneto-optic processes in anisotropic collisions. IAESOAN. Preprint, no. 270, 1985, 17 p. (RZFZA, 85/9L785).

298. Ozhovan, M.I.; Sobolev, I.A.; Timofeyev, Ye.M.; Khomchik, L.M. (). Coherent spectroscopy and introscopy of inhomogeneous oscillator-type systems. ZPSBA, v. 42, no. 3, 1985, 425-430.
299. Ruzickova, A. (). Current and prospective applications of lasers in the national economy [of Czechoslovakia]. Ustredni vedecka, technicka a ekonomicka informace. Sdeleni, no. SIVO-1988, 1984, 51 p. (RZRAB, 85/10Ye502).
300. Semenov, Ye.P. (GOI). Radiation field visualization of infrared lasers. OPMPA, no. 9, 1985, 54-62.
301. Yelkhov, V.A. (). Field shaping with partial spatial coherence with the help of controlled phase transparencies. AVMEB, no. 5, 1985, 99-101.
302. Yepatko, I.V.; Pashinin, P.P.; Serov, R.V. (IOF). Characteristics of multipass amplifiers. IOF. Preprint, no. 94, 1985, 18 p. (RZFZA, 85/10L851).
303. Zavorotnyy, S.I.; Mkheidze, G.P.; Ovchinnikov, A.A.; Savin, A.A. (IOF). Combined laser oscillation with beam initiation. PZTFD, no. 17, 1985, 1053-1057.
304. Zykov, L.I.; Kormer, S.B.; Kulikov, S.M.; Sukharev, S.A.; Shkapa, A.F. (). Ultimate gain increase in an optical quantum amplifier. KVEKA, no. 10, 1985, 2157-2158.

## II. LASER APPLICATIONS

### A. BIOLOGICAL EFFECTS

305. Abil'siitov, G.A.; Belyayev, A.A.; Bragin, M.A.; Velikhov, Ye.P.; Zhdanov, V.S.; Karu, T.Y.; Letokhov, V.S.; Ragimov, S.E.; Ruka, M.Ya.; Trubetskoy, A.V.; Furzиков, N.P.; Chazov, Ye.I. (NITsTLAN). Photoablation of atherosclerotic plaques by laser radiation. KVEKA, no. 10, 1985, 1991-1993.
306. Adamenko, V. (TSNIIE). Laser instead of medicine. TKHMA, no. 9, 1985, 25.
307. Agov, B.S.; Andreyev, Yu.A.; Borisov, A.V.; Broun, L.M.; Dvorkina, M.I.; Zhuk, A.Ye.; Ivanova, L.N.; Korneyeva, N.T.; Nikolayeva, R.I.; Belyayev, V.P.; Aleynikov, V.S (LSGMI). Mechanism in the therapeutic action of He-Ne laser light on ischemic heart disease. KLMIA, no. 10, 1985, 102-105.
308. Danilova, I.N.; Minenkov, A.A.; Nesterov, N.I.; Shur, V.V. (TsNIIKIF). Method for treating chronic non-specific prostatitis. OTIZD, no. 36, 1985, 1091396.
309. Kamalov, V.F.; Stepanova, N.V.; Chernyayeva, Ye.B.; Chikishev, A.Yu. (MGU). Selective effect of laser radiation on cancer cells and laser spectroscopy of the cell. KVEKA, no. 10, 1985, 1997-2023.
310. Lippenyi, T.; Rejto, K. (). Experience in the development and application of CO2 laser micromanipulators in laryngology. Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 129. (RZRAB, 85/10Ye595).
311. Shargorodskiy, A.G.; Rodionov, N.T.; Karpukhina, L.I. (SMI). Accessory for laser surgery. OTIZD, no. 35, 1985, 1179981.
312. Sitnikov, V.P.; Medvedeva, L.L. (NIIMPS). Device to secure a laser for treatment of ear-nose-and-mouth diseases. ZUNBA, no. 5, 1985, 78-79.
313. Sosnovskiy, A.T.; Dyuba, V.M.; Mostovnikov, V.A.; Plavskiy, V.Yu. (MinGMI; IFANB). Using low-power gas lasers to treat skin diseases. ZDBEA, no. 10, 1985, 61-62.
314. Wengler, P.; Reinhold, B.; Sonnefeld, D. (). Laser device for surgery. Patent GDR, no. 217711, 23 Jan 1985. (RZRAB, 85/9Ye785).



B. COMMUNICATIONS SYSTEMS

315. Abramov, A.A.; Borkina, G.Yu.; Bubnov, M.M.; Vechkanov, N.N.; Gur'yanov, A.N.; Dianov, Ye.M.; Konov, A.S.; Kudim, T.V.; Myakov, V.N.; Naumov, V.S.; Shchebun'yayev, A.G. (IOF). Frost-resistant fiberoptic modules. KVEKA, no. 9, 1985, 1951-1954.
316. Akhmediyev, N.N.; Belotelova, O.A.; Poltoratskiy, E.A. (). Mode transformation at the interface of two planar waveguides at oblique incidence. OPSPA, v. 58, no. 5, 1985, 1077-1080.
317. Aminov, F.Kh.; Karaman, Ye.N.; Khaydarov, A.V. (TashGU). Influence of fiber manufacturing processes on attenuation in optical load-carrying cable. KVEKA, no. 10, 1985, 2179-2180.
318. Andreyev, I.A.; Baranov, A.N.; Zhingarev, M.Z.; Korol'kov, V.I.; Mikhaylova, M.P.; Yakovlev, Yu.P. (FTI). Dark currents in GaAlSb(As) diode structures of resonant composition. FTTPA, no. 9, 1985, 1605-1611.
319. Andriyesh, A.M.; Kulakov, Ye.V.; Kulyak, I.P.; Ponomar', V.V.; Smirnova, A.S. (IPFANM). Optical losses in As-S fibers in the range of 0.8-1.6  $\mu\text{m}$  and their change upon exposure to neutron radiation. KVEKA, no. 9, 1985, 1981-1983.
320. Anikin, V.I.; Zaytsev, S.V.; Strokin, M.V.; Shevtsov, V.M. (). Cathode-sputtered dielectric waveguide films homogeneous over a large area. OPSPA, v. 58, no. 5, 1985, 1081-1084.
321. Antov, K. (). Optical information transmission systems (in Bulgarian). Radio, telev., elektron., no. 2, 1985, 21-22. (RZRAB, 85/10Ye310).
322. Artyushin, L.F.; Ovilko, O.G.; Trus'ko, V.L. (). Device for laser recording of images on motion picture film. Author's certificate USSR, no. 1136100, 23 Jan 1985. (TKTEA, no. 9, 1985, 77).
323. Astakhov, A.V.; Butusov, M.M.; Galkin, S.L. (). Specific laser effects in active fiber lightguides. OPSPA, v. 59, no. 4, 1985, 913-916.
324. Baars, G.; Forbrig, B.; Renschen, C. (). Device for coupling in of light into multimode lightguides. Patent GDR, no. 219594, 6 Mar 1985. (RZRAB, 85/10Ye195).

325. Baars, G.; Winkelmann, S. (). Adjustable microoptic coupling device for lightguides. Patent GDR, no. 218963, 20 Feb 1985. (RZRAB, 85/10Ye206).
326. Bagrov, A.M.; Vasil'yev, A.V.; Devyatykh, G.G.; Dianov, Ye.M.; Ignat'yev, S.V.; Plotnichenko, V.G.; Pushkin, A.A.; Skripachev, I.V.; Churbanov, M.F.; Shipunov, V.A. (IKhAN). Effect of polymeric reflective cladding on optical losses in chalcogenide glass waveguides. KVEKA, no. 10, 1985, 2167-2169.
327. Baklunov, Yu.A.; Mishnayeveskiy, P.A.; Ovvyan, P.P. (). Method for measuring the amplitude-frequency characteristics of multimode optical waveguides. OTIZD, no. 15, 1985, 1151903. (RZRAB, 85/9Ye212).
328. Bauer, J.; Burghoff, U.; Merker, W.; Riese, B.; Voigt, P. (). Coupling device for lightguide fibers. Patent GDR, no. 211882, 25 Jul 1984. (RZRAB, 85/9Ye348).
329. Beloglazov, V.I.; Pshentsov, Yu.A.; Dobrov, G.S.; Lebedev, N.F.; Skibina, N.B.; Romanov, G.P.; Ovcharov, Ye.I. (). Fiberoptic plate. OTIZD, no. 11, 1985, 1146618. (RZRAB, 85/9Ye376).
330. Belovolov, M.I.; Gur'yanov, A.N.; Gusovskiy, D.D.; Dianov, Ye.M.; Dyankov, G.L.; Kuznetsov, A.V. (IOF). Low-loss directional couplers utilizing single-mode fiber optic waveguides. KVEKA, no. 9, 1985, 1873-1880.
331. Berestnev, S.P.; Bondur, V.G.; Danilov, Yu.I.; Dumarevskiy, Yu.D.; Kovtonyuk, N.F.; Savin, A.I.; Filippov, A.V. (). Informational characteristics of a metal--dielectric--semiconductor--liquid-crystal structure with a fiberoptic input. RAELA, no. 6, 1985, 1212-1216. (RZFZA, 85/10L646).
332. Birus, D. (). Linear optical coupler for analog data transmission. Patent GDR, no. 218242, 30 Jan 1985. (RZRAB, 85/9Ye370).
333. Bluschke, A.; Jemin, W.I. (). Lightguide transmission systems with pulse-position modulated line signals. NACHA, no. 4, 1985, 124-126. (RZRAB, 85/9Ye427).
334. Bogdanov, A.L.; Valiyev, K.A.; Velikov, L.V.; Zaruslov, D.Yu.; Prokhorov, A.M. (IOF). Nanosecond single pulse laser lithography. PZTFD, no. 17, 1985, 1025-1030.

335. Buachidze, Z.E.; Vasilishcheva, I.V.; Morozov, V.N.; Pletnev, V.A.; Semenov, A.S.; Shapkin, P.V. (FIAN). Integrated optic CdS(subx)Se(sub1-x) waveguides. KVEKA, no. 9, 1985, 1814-1818.
336. Burlikowski, R.; Parol, N.; Szpigler, Z.; Wojcik, J.; Zbyrad, S. (). Communication cable with optical fibers. Patent Poland, no. 124223, 10 Dec 1984. (RZRAB, 85/9Ye286).
337. Burlikowski, R.; Zbroja, J.; Zbyrad, S. (). Method for joining fiber lightguides in telecommunications. Patent Poland, no. 127281, 15 Sep 1984. (RZRAB, 85/9Ye315).
338. Butusov, M.M.; Stepanov, S.A. (). Refractive-index profile measurement for gradient multimode fibers. OPSPA, vol. 59, no. 3, 1985, 691-694.
339. Dianov, Ye.M.; Nikonov, Z.S.; Prokhorov, A.M.; Serkin, V.N. (IOF). Effect of stimulated scattering and self action of ultrashort pulses in fiber waveguides. PZTFD, no. 17, 1985, 1030-1034.
340. Dianov, Ye.M.; Prokhorov, A.M. (). Fiberoptic communications. 90 let radio (90 years of radio). Moskva, 1985, 182-194. (RZRAB, 85/9Ye384).
341. Engelage, D. (). Construction of digital automated systems with lightguides for transformer substations of electric power plants. MSRGA, no. 4, 1985, 147-149,190,191. (RZRAB, 85/9Ye473).
342. Fasold, D.; Mueller, R.; Schroeter, B. (). Optical waveguide Ta(sub2)O(sub5) films for integrated optics. NACHA, no. 4, 1985, 129-130. (RZFZA, 85/10Zh350).
343. Fomichev, B.N. (). Theoretical and experimental methods for studying irregularities in optical fibers. Teoriya peredachi informatsii po kanalam svyazi. Leningrad, 1985, 117-121. (RZRAB, 85/10Ye162).
344. Gladkikh, V.V.; Dovchenko, N.K.; Karavanskiy, V.A.; Lamekin, V.F.; Smirnov, V.L.; Chvyrev, I.M. (). Smooth transitions in optical waveguides with a conducting boundary medium. KVEKA, no. 9, 1985, 1964-1967.
345. Glaser, W. (). Optical communications technology: more than an alternative solution. NACHA, no. 4, 1985, 123-124. (RZRAB, 85/9Ye400).

346. Goncharenko, A.M.; Makarevich, R.N. (). Transmission of images of refraction objects by optical spectral systems. DBLRA, no. 5, 1985, 415-417. (RZFZA, 85/10L47).
347. Gordiyenko, V.N.; Zimin, B.I. (MEIS). Remote control system for regenerators in optical communication lines. OTIZD, no. 10, 1985, 1145487. (RZRAB, 85/9Ye428).
348. Gridnev, V.N.; Smolenskiy, G.A.; Ageyev, A.N.; Rutkin, O.G. (FTI). Nonreciprocal TE-TM mode conversion in a magneto-optic waveguide with a periodic structure. ZTEFA, no. 10, 1985, 1992-1996.
349. Grinshteyn, M.L.; Kabeshev, V.D.; Kirillov, V.I.; Serikov, V.V.; Tarchenko, A.A.; Tarchenko, N.V.; Tkachenko, A.P. (). Cable television system using fiberoptic communication lines. TKTEA, no. 5, 1985, 46-49. (RZRAB, 85/9Ye402).
350. Jerominek, H.; Tremblay, R.; Opilski, Z. (). Optical waveguides formed in Y-cut LiNbO<sub>3</sub> crystals by Ti diffusion in a stationary air atmosphere (in English). OPAPB, no. 3, 1984, 365-373. (RZRAB, 85/10Ye354).
351. Kalmykov, I.V.; Kudryashov, O.V.; Lomanov, V.G.; Losev, G.M.; Mel'nikov, I.F.; Tsyganova, I.Yu.; Chernyshev, A.P.; Chigirev, A.N.; Chuplanov, A.N. (LNIVTs). Use of fiberoptic communication lines in remote photoimage processing systems. LNIVTs. Preprint, no. 61, 1985, 15 p. (RZFZA, 85/10L625).
352. Kazanskiy, P.G.; Prokhorov, A.M.; Chernykh, V.A. (IOF). Circular photocurrent and phenomena associated with it in lithium niobate waveguides. IOF. Preprint, no. 42, 1985, 8 p. (RZFZA, 85/9Zh395).
353. Kerimov, A.A.; Krutova, L.V. (). Spatial analyzer of radiation from multimode optical fibers. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 187-191.
354. Kiselev, S.N.; Balayev, V.I.; Pyatakhin, V.I. (VNIIYaGG). Optical radiation source for geophysical fiberoptic information and measuring systems. VINITI. Deposit, no. 3756-85, 29 May 1985, 43 p. (RZGFA, 85/9D147).

355. Kiselev, V.A. (IOF). Diffractive radiation of surface waves from diffused optical waveguides with harmonically modulated permittivity. KVEKA, no. 10, 1985, 2133-2136.
356. Klitzke, K.; Brunke, W.; Hoffmann, M. (). Splicing element for clad lightguides. Patent GDR, no. 218194, 30 Jan 1985. (RZRAB, 85/9Ye313).
357. Korneyev, V.I.; Akhmediyev, N.N.; Shermergor, T.D. (). Nonlinear cylindrical waveguide as an unstable element in integrated optics. Mikroelektronnyye sistemy i SVCh ustroystva. MIET. Moskva, 1984, 62-70. (RZFZA, 85/9Zh386).
358. Krasnoproshina, A.A.; Ventskovskiy, O.M. (KPIA). Mathematical description for the process of forming optical fiber. UkrNIINTI. Deposit, no. 920Uk-85, 6 May 1985, 19 p. (RZFZA, 85/10A309).
359. Krawczak, L. (). Calculating the coupling coefficients of axially coupled lightguides. NACHA, no. 4, 1985, 139-141. (RZFZA, 85/10Zh351).
360. Krawczak, L. (). Coupling between lightguide fibers and integrated optical circuits. WZHMA, no. 2, 1985, 147-153. (RZRAB, 85/9Ye363).
361. Krivoshlykov, S.G.; Petrov, N.I.; Sisakyan, I.N. (IOF). Waveguide mode excitation with a quadratic index profile of frequency coherent radiation sources. ZTEFA, no. 9, 1985, 1763-1772.
362. Krivoshlykov, S.G.; Petrov, N.I.; Sisakyan, I.N. (IOF). Effect of radiation coherence on mode noise in irregular multimode waveguides. KRSFA, no. 10, 1985, 3-7.
363. Krylova, I. (). All-Union Scientific and Technical Conference: Problems in the Development of Radiooptics, Tbilisi, June 1985. EKVZA, no. 10, 1985, 31.
364. Leidenberger, G.; Eberlein, D. (). Using phase space diagrams to calculate coupling losses in lightguides. NACHA, no. 4, 1985, 146-149. (RZFZA, 85/10Zh354).
365. Martynova, T.A. (). Analysis of cable lines using single- and few-mode optical fibers. EKVZA, no. 10, 1985, 21-26.

366. Maryukov, M.A.; Zubkov, A.I.; Ivanova, Ye.A. (VNIISV). Optical tester device "Elektronika OT-6" for the measurement of losses in an optical fiber with unsealed joints. PRTEA, no. 5, 1985, 216.
367. Maschkowitz, F.; Saavedra, F. (). Study on coupling sites between single-mode and strip lightguides. NACHA, no. 4, 1985, 141-144. (RZFZA, 85/10Zh352).
368. Mednikov, V.A. (). Synchronization and phasing of scans in laser recording of color television images on motion picture film. Tsvetovosproduzvodstvo v kinematograficheskikh sistemakh. Leningrad, 1984, 74-84. (RZRAB, 85/9Ye608).
369. Mednikov, V.A. (). Corrections in systems for stabilizing the horizontal and frame scans in a laser recording device. Tsvetovosproduzvodstvo v kinematograficheskikh sistemakh. Leningrad, 1984, 90-96. (RZRAB, 85/9Ye624).
370. Morshnev, S.K.; Frantsesson, A.V. (IRE). Coherent fiber optic communication. KVEKA, no. 9, 1985, 1786-1806.
371. Nedranets, Yu.I.; Sarychev, A.G. (). Light-polarization fluctuation in anisotropic light guides with random parameters. OPSPA, vol. 59, no. 4, 1985, 890-893.
372. Nosov, Yu.R.; Mamedov, A.K. (). Noise parameters of optoelectronic decouplers. RATEA, no. 4, 1985, 73-76. (RZRAB, 85/9Ye372).
373. Nowak, W.; Hansske, A. (). Calculation of multi- and single-mode lightguides as a matrix eigenvalue problem. NACHA, no. 4, 1985, 144-146. (RZFZA, 85/10Zh353).
374. Saavedra, F.; Maschkowitz, F. (). Calculation of wave fields in circular cylindrical single-mode lightguides and planar structures. WZHMA, no. 2, 1985, 154-159. (RZRAB, 85/9Ye252).
375. Seglin'sh, Ya.A.; Kundzin'sh, M.A.; Kalnin'sh, A.Ya.; Login, M.A. (NIIFTT). Laser projector with a transparent ferroceramic light modulator. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 181-182.

376. Semenov, A.B. (). Method for linearizing the modulation characteristics of radiators in analog lightguide communications systems. Avtomatizirovannyye sistemy i apparatura telefonnoy kommutatsii i teletrafika. Moskva, 1984, 55-58. (RZRAB, 85/9Ye407).
377. Shchekotikhin, O.V.; Teslenko, V.P.; Martynov, V.Ye.; Sogorin, A.V. (). Fiberoptic couplers. OTIZD, no. 43, 1984, 1125590. (RZRAB, 85/9Ye352).
378. Shepot'ko, A.D.; Padurets, G.I.; Ivanov, V.V.; Romanchenko, P.M.; Stepura, V.I. (). Photocopying device. OTIZD, no. 36, 1985, 1182476.
379. Smirnov, V.I. (). Fiberoptic transmission systems at 1.3 and 1.5  $\mu\text{m}$ . Foreign review. EKVZA, no. 10, 1985, 38-39.
380. Srapionov, V.A. (MEIS). Radiation from the open end of a graded-index optical fiber. Informsvyaz'. Deposit, no. 652sv-85, 31 May 1985, 7 p. (RZRAB, 85/9Ye244).
381. Sukhoivanov, I.A.; Tereshchenko, A.I. (). Losses in short communication lines based on multilayer dielectric waveguides. RTKHA, no. 73, 1985, 100-103. (RZRAB, 85/9Ye386).
382. Surazynski, L.; Szustakowski, M. (). Analysis of electromagnetic wave propagation in multimode electrooptic waveguides. BWATA, no. 3, 1985, 35-50. (RZFZA, 85/10L50).
383. Trifonov, A.S.; Ageyev, A.N.; Fridnev, V.N.; Rutkin, O.G.; Kravchenko, V.B.; Filimonova, L.M. (FTI). Optical anisotropy of Bi-free epitaxial films of ferrite-garnet. ZTEFA, no. 10, 1985, 1997-2003.
384. Tvoremirova, T.A. (). Polarization state in single-mode fibers and methods for stabilizing it. Teoriya peredachi informatsii po kanalam svyazi. Leningrad, 1985, 122-128. (RZRAB, 85/10Ye161).
385. Vasin, L.N.; Guzhevskaya, A.V.; Sattarov, D.K. (GOI). Effect of the roughness of end faces of fiberoptic plates on the transmission coefficient of modulation. OPMPA, no. 4, 1985, 56-57.
386. Veretennikov, V.A.; Leonov, Yu.S.; Mishachev, V.I.; Semenov, O.G. (). Single pulse lithography with the use of high intensity radiation from an electric discharge source. PZTFD, no. 19, 1985, 1200-1203.

387. Vifanskiy, Yu.K. (). Transmission of continuous energy distributions by fiberoptic elements. OPSPA, v. 58, no. 4, 1985, 879-883.
388. Vorontsov, A.A.; Mirovitskaya, S.D. (). Diagrams of scattering by various types of optical fibers. RATEA, no. 6, 1985, 79-82. (RZFZA, 85/10L49).
389. Vurbanov, N.; Stancheva, V. (). Nonmetallic optical coupler for quartz-polymer fiber lightguides (in Bulgarian). Radio, telev., elektron., no. 2, 1985, 30-31. (RZRAB, 85/10Ye222).
390. Zargar'yants, M.N.; Grudin, O.M.; Galkina, N.B.; Gorelova, Ye.L. (). High-efficiency laser-photodetector in a monolithic integrated optic module utilizing coupled waveguides. KVEKA, no. 10, 1985, 2036-2041.
391. Zubarev, Yu.B.; Fedorov, B.N. (). Fiberoptic communications systems at 0.8--0.9  $\mu\text{m}$ . Review of foreign press materials. EKVZA, no. 10, 1985, 32-37.

#### C. BEAM PROPAGATION

##### 1. Theory

392. Bass, F.G.; Nasonov, N.N. (). Wave packets in nonlinear amplifying media. DUKAB, no. 4, 1985, 49-51. (RZFZA, 85/10L794).
393. Bokut', B.V.; Sholokh, V.F.; Kul'minskiy, A.M. (). Reflection and refraction of electromagnetic waves at the boundary of moving and unmoving media. DBLRA, no. 5, 1985, 409-411. (RZFZA, 85/10L21).
394. Brazovskiy, V.Ye.; Brazovskaya, N.V. (API). Spectral width of a radiation pulse in a resonant medium. VINITI. Deposit, no. 5364-85, 24 Jul 1985, 6 p. (RZFZA, 85/10L1072).
395. Dik, V.P.; Ivanov, A.P.; Loyko, V.A. (). Coherent transmission of light by disperse media with densely packed particles. DBLRA, no. 4, 1985, 322-325. (RZFZA, 85/9L67).
396. Gvozдовskiy, I.V.; Tkachuk, G.B. (MEI). Study on coherent scattering of radiation in a semi-infinite medium. MEI. Trudy, no. 33, 1984, 12-17. (RZFZA, 85/10L26).



397. Karamaliyev, R.A. (). Interaction of opposed waves with a photoinduced periodic structure. Mnozhestvennyye rozhdeniye i struktura molekul. Baku, 1985, 83-86. (RZFZA, 85/9L783).
398. Klochkov, V.P. (). Scattering of light. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 44-91.
399. Klochkov, V.P.; Kozlov, L.F. (). Characteristics of light-scattering particles. Methods for preparing and identifying them. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 223-280.
400. Kozin, G.I.; Konovalov, I.P.; Protsenko, Ye.D.; Terekhin, A.V. (). Polarization of gas-laser radiation under conditions of two-mode trapping. OPSPA, vol. 59, no. 3, 1985, 712-714.
401. Nemchinov, I.V.; Shuvalov, V.V. (IFZ). Radiation of convergent shock waves. ZETFA, no. 10, 1985, 2089-2091.
402. Panov, V.P.; Ivashchenko, M.I. (). Diffraction of finite wave beams. KVEKA, no. 9, 1985, 1819-1824.
403. Paul, H.; Fischer, R. (). How does an atom absorb a light quantum? CFJOBOQU, 16th, Jena, 9-11 Jul 1984. Vortraege. Band 9. Jena, 1984, 62-65. (RZFZA, 85/9L81).
404. Savel'yev, B.A.; Larionov, V.V.; Goryachev, B.V.; Mogil'nitskiy, S.B.; Kutlin, A.P. (ToPI). New method for parametrization of scattering indexes in spatially bound scattering media. ZTEFA, no. 6, 1985, 1184-1186.
405. Sumetskiy, M.Yu.; Aleksandrov, Yu.M.; Potekhin, A.O. (). Small-angle scattering of optical radiation by axial symmetric inhomogeneity in a medium. LIAP. Mezhvuzovskiy sbornik, no. 171, 1984, 123-129. (RZFZA, 85/9L973).
406. Veklenko, B.A. (MEI). Selective reflection of resonance radiation from gas media at temperatures not equal to 0. MEI. Trudy, no. 33, 1984, 5-11. (RZFZA, 85/10L22).
407. Vereshchagin, V.G.; Ponyavina, A.N.; Sil'vanovich, N.I. (). Coherent field in radiation scattering by a system of particles with a large volume of concentrations. OPSPA, v. 58, no. 5, 1985, 1097-1101.

408. Volostnikov, V.G.; Klibanov, M.V.; Kotlyar, V.V. (). Uniqueness of an inverse problem of scattering in a Fresnel approximation. ZVMFA, no. 6, 1985, 948-954. (RZFZA, 85/10L28).
409. Zhidkov, Ye.P.; Panova, Ye.Yu. (OIYaI). Existence of steady-state solutions to equations describing the process of propagation of light beams in a medium with saturation of nonlinearity. OIYaI. Soobshcheniye, no. 5-85-178, 1985, 10 p. (RZFZA, 85/10L1059).

## 2. Propagation in the Atmosphere

410. Aksenov, V.P.; Banakh, V.A.; Buldakov, V.M.; Mironov, V.L.; Tikhomirova, O.V. (IOA). Distribution of light intensity fluctuations behind a telescope lens upon reflection in a turbulent atmosphere. KVEKA, no. 10, 1985, 2136-2140.
411. Aleksandrov, Ye.B.; Ansel'm, A.A.; Moskalev, A.N. (LIYaF). Double refraction of a vacuum in a field of intense laser radiation. ZETF, vol. 89, no. 4, 1985, 1181-1189.
412. Blinov, N.A.; Leont'yev, I.A.; Ryzhkov, Ye.G.; Semenov, V.L.; Sinel'nikov, V.P.; Filippov, S.S.; Cheburkin, N.V. (IPM). Nonlinear attenuation of pulsed laser radiation at atmospheric ground path. KVEKA, no. 10, 1985, 2147-2149.
413. Borodin, V.G.; Bukin, O.A.; Stolyarchuk, S.Yu.; Tyapkin, V.A. (). Lidar detection of the conditions for waveguide propagation of ultrashort waves over the sea. RAELA, no. 6, 1985, 1219-1221. (RZRAB, 85/10Ye431).
414. Boyarskiy, K.K.; Kotlikov, Ye.N.; Khryashchev, L.Yu. (). Formation of the angular distribution of an atomic beam deflected by monochromatic light. OPSPA, vol. 59, no. 3, 1985, 523-526.
415. Budak, V.P.; Zaytsev, I.A. (MEI). Visibility of remote objects while illuminated by a fanned searchlight beam. MEI. Nauchnykh trudov, no. 33, 1984, 33-37. (RZFZA, 85/10L766).
416. Byalko, A.V.; Pelevin, V.N. (MEI). Polarization of light reflected from the sea surface. MEI. Nauchnykh trudov, no. 33, 1984, 18-27. (RZFZA, 85/10L775).

417. Derbisalin, M.A.; Tokarev, O.D.; Toropova, T.P. (). Optical probing of ground-level urban haze. Opticheskoye zondirovaniye atmosfery. Chast' 1. AFI. Alma-Ata, Nauka, 1985, 58-78.
418. Fedosov, V.P.; Gutorov, M.M. (MEI). Structure of a light field from a narrow beam in a stratified turbid medium. MEI. Nauchnykh trudov, no. 33, 1984, 28-33. (RZFZA, 85/10L759).
419. Gerasimov, M.V.; Mukhin, L.M.; Dikov, Yu.P.; Rekharskiy, V.I. (). Mechanisms in the early differentiation of the earth [simulated by laser modeling]. VANSa, no. 9, 1985, 10-25.
420. Gorelik, D.O.; Yengoyan, T.M.; Kozintsev, V.I.; Konopel'ko, L.A.; Morozova, M.M.; Sil'nitskiy, A.F. (). Metrological provision for laser radars to monitor air pollution. IZTEA, no. 5, 1985, 49-51. (RZRAB, 85/10Ye584).
421. Ivanov, Ye.K.; Kolbenkov, V.A.; Konopel'ko, L.A.; Rastoskuyev, V.V. (). Metrological provision for lidar Raman spectroscopy to monitor air pollution. IZTEA, no. 5, 1985, 56-57. (RZRAB, 85/10Ye583).
422. Kiriyyenko, G.A.; Toropova, T.P. (). Seasonal variations of various telluric lines and their effect on methods of optical probing. Opticheskoye zondirovaniye atmosfery. Chast' 1. AFI. Alma-Ata, Nauka, 1985, 5-57.
423. Klochkov, V.P.; Kozlov, L.F. (). Spontaneous Raman scattering [in the atmosphere]. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 581-613.
424. Konyayev, P.A.; Kopytin, Yu.D.; Lukin, V.P.; Penin, S.T. (). Thermal blooming of laser beams over atmospheric paths. VINITI. Deposit, no. 4066-85, 11 Jun 1985, 35 p. (RZFZA, 85/10L768).
425. Lyadzhin, V.A.; Tashenov, B.T.; Kaul', B.V.; Samokhvalov, I.V.; Utochkin, K.P.; Kuznetsov, V.P. (). Equipment and methods for laser probing of the atmosphere. Opticheskoye zondirovaniye atmosfery. Chast' 1. AFI. Alma-Ata, Nauka, 1985, 93-107.
426. Nilov, Ye.V.; Rusov, V.A. (GOI). Use of heavy-current photoelements for the control of the shape of laser pulses. PRTEA, no. 5, 1985, 155-157.

427. Panin, V.F.; Trampil'tsev, V.N. (ToPI). Expansion into a Fourier series of the random angular function of scattering of optical radiation by smoke aerosols. VINITI. Deposit, no. 4382-85, 19 Jun 1985, 8 p. (RZFZA, 85/10L760).
428. Pelevin, V.N.; Stemkovskiy, A.I. (IOAN). Device to determine the parameters of sea waves. OTIZD, no. 35, 1985, 931000.
429. Pelevin, V.N.; Sviridov, S.A.; Stemkovskiy, A.I. (). Method and device to determine the statistical parameters of the sea surface. OTIZD, no 37, 1985, 1183834.
430. Siuzdak, J. (). Current state of knowledge on the effect of atmospheric turbulence on the propagation of light. RZETA, no. 3, 1984, 841-854. (RZRAB, 85/10Ye429).
431. Tashenov, B.T.; Tem, E.L.; Azhiyev, N.U. (). Information content of solar radiation relative to the structure of atmospheric aerosols. Opticheskoye zondirovaniye atmosfery. Chast' 1. AFI. Alma-Ata, Nauka, 1985, 79-92.
432. Vergun, V.V.; Kokhanenko, G.P.; Krutikov, V.A. (). Optical transfer function in a small-angle diffusion approximation. VINITI. Deposit, no. 4061-85, 11 Jun 1985, 12 p. (RZFZA, 85/10L764).
433. Vishchakas, Yu.; Kabelka, V.; Milyauskas, A.; Moteyunas, R.; Rimklyavichyus, R.; Yakubenas, R. (). CAMAC system for selecting, processing and recording data for lidar differential absorption. CMSPMEFE, 3rd, 8 Jun 1984. Trudy. Vil'nyus, 1984, 42-47. (RZFZA, 85/10A257).
434. Vysochanskiy, Yu.M.; Furtsev, V.G.; Khoma, M.M.; Gurzan, M.I.; Slivka, V.Yu. (UzhGU). Splitting of ferroelectric phase transition in a laser radiation field and its self-focusing. ZETFA, vol. 89, no. 3, 1985, 939-945.
435. Yegorov, K.D.; Kandidov, V.P.; Pentegova, L.I.; Prakhov, M.S. (MGU). Propagation of an infrared radiation beam in the flow of a polydisperse aqueous aerosol. KVEKA, no. 9, 1985, 1825-1833.
436. Zakharchenko, S.V.; Skripkin, A.M. (IEM). Laser radiation propagation at the onset of a long laser spark. ZTEFA, no. 10, 1985, 1935-1942.

437. Zuyev, V.Ye.; Ponomarev, Yu.N.; Tikhomirov, B.A. (). Multichannel optoacoustic spectroscopy of atmospheric gases. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 104-108.

### 3. Propagation in Liquids

438. Bekkiyev, A.Yu.; Kumykov, Kh.K.; Fadeyev, V.V. (VGI). Remote laser studies on aqueous media. VGI. Trudy, no. 56, 1985, 74-79. (RZGFA, 85/10V42).
439. Belinskiy, A.V. (). Method for determining the salinity of the sea medium. OTIZD, no. 7, 1985, 1141314. (RZGFA, 85/10V46).
440. Golenishchev-Kutuzov, A.V.; Migachev, S.A.; Yafayev, N.R. (LGU). Generation of surface acoustic waves using laser radiation impulses. AKZHA, no. 5, 1985, 671-675.
441. Golubnichiy, P.I.; Davydov, A.A.; Korchikov, S.D.; Prognimak, A.B. (). Sound generation by laser pulses in liquids with suspended particles. AKZHA, no. 5, 1985, 698-700.
442. Lysikov, Yu.I. (VMI). Modulation of laser radiation flux by a boiling liquid. UFZHA, no. 10, 1985, 1468-1472.
443. Rozniakowski, K.; Dolny, A. (). Possibility of surface deformation of a thin-film liquid by a He-Ne laser light beam (in English). OPAPB, no. 4, 1984, 545-547. (RZRAB, 85/10Ye538).
444. Voytov, V.N. (MEI). Modeling of optical fields in the ocean. MEI. Nauchnykh trudov, no. 33, 1984, 45-49. (RZFZA, 85/10L773).
445. Zakharov, A.K. (MEI). Statistical modeling of the process of propagation of a short light pulse from a highly directional source in seawater. MEI. Nauchnykh trudov, no. 33, 1984, 38-45. (RZFZA, 85/10L774).

### 4. Adaptive Optics

446. Adonts, G.G.; Akopyan, D.G. (NIIFKS). Nondegenerate polarized light reversal under four-wave mixing in a resonant medium. KVEKA, no. 9, 1985, 1807-1813.

447. Bertolotti, M.; Sibilia, K. (Italy); Perzina, I.; Perinova, V. (Czechoslovakia). Statistical properties of certain nonlinear scattering processes. KVEKA, no. 10, 1985, 2082-2086.
448. Betin, A.A.; Vasil'yev, A.F.; Kulagin, O.V.; Manishin, V.G.; Yashin, V.Ye. (). Wavefront reversal during non-steady-state stimulated Brillouin scattering of focused beams. ZETFA, vol. 89, no. 3, 1985, 817-832.
449. Betin, A.A.; Zhukov, Ye.A.; Mitropol'skiy, O.V. (IPF). Reflection of CO<sub>2</sub> laser radiation under degenerate four-wave mixing in liquids. KVEKA, no. 9, 1985, 1890-1894.
450. Dmitriyev, N.I.; Ivlev, V.I. (). Adaptive Michelson interferometer. PRSUB, no. 3, 1985, 24-25. (RZFZA, 85/9L637).
451. Gnatovskiy, A.V. (IFANUK). Efficiency of holographic correction of Gaussian beams. UFZHA, no. 9, 1985, 1313-1320.
452. Lukin, V.P.; Mironov, V.L. (IOA). Dynamic characteristics of adaptive optical systems. KVEKA, no. 9, 1985, 1959-1962.
453. Molotkov, N.Ya.; Kleyman, I.S. (). Optical wavefront scanning. FIZSA, no. 2, 1985, 81-84. (RZFZA, 85/9A131).
454. Nefed'yev, L.A. (). Formation of stimulated echo holograms at degenerate levels. OPSPA, v. 58, no. 4, 1985, 854-859.
455. Odintsov, V.I.; Rogacheva, L.F. (). Wavefront reversal under the excitation of stimulated Brillouin scattering in a degenerate resonator. OPSPA, v. 59, no. 4, 1985, 909-911.
456. Pavlov, V.I.; Pergament, A.Kh. (IPM). Compensation of nonlinear distortions in amplifier stages of laser systems with wavefront reversal. IPM. Preprint, no. 60, 1985, 16 p. (RZFZA, 85/9L961).
457. Rysakov, V.M.; Aristov, Yu.V.; Korotkov, V.I. (FTI). Wave front reversal under a stimulated Brillouin focused beam with a small number of angular modes. ZTEFA, no. 10, 1985, 1955-1961.

458. Vasil'yev, Yu.P.; Razenshteyn, P.S.; Shklovskiy, Ye.I.; (IOF). Stimulated Brillouin scattering mirror utilizing a multimode optical fiber. KVEKA, no. 10, 1985, 2153-2154.
459. Volyak, T.B.; Krasnyuk, I.K.; Pashinin, P.P. (). Adaptive mirror for large-aperture laser beams (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 96. (RZRAB, 85/10Ye404).
460. Yepishin, V.A.; Zaslavskiy, V.Ya.; Neofitnyy, M.V.; Przhhevskiy, S.S. (KhGU). Method for measuring the radius of the curve of the phase front of a beam of electromagnetic radiation. OTIZD, no. 16, 1985, 1153372. (RZRAB, 85/10Ye433).

D. COMPUTER TECHNOLOGY

461. Bagrov, V.V.; Kotova, S.P.; Koryakovtsev, V.S.; Mnatsakanyan, E.A.; Chupazhin, V.N.; Shevyakov, N.A.; Yastrebov, V.M. (FIAN). Automated device for measuring the parameters of optically controlled transparencies. FIAN. Preprint, no. 101, 1985, 16 p. (RZRAB, 85/10Ye448).
462. Boriskevich, A.A.; Daylyudenko, V.F.; Yerokhovets, V.K. (). Orientation sensitivity of holograms in a three dimensional holographic memory device. AVMEB, no. 5, 1985, 24-29.
463. Smolinska, B. (). Recognition of complementary signals. OPAPB, no. 3, 1984, 399-401. (RZFZA, 85/10L544).
464. Turukhano, B.G. (). Disk system for a holographic memory. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 75-95.
465. Vanyushev, B.V.; Tarkov, V.A.; Shipov, P.M. (). Acousto-optic deflector. AVMEB, no. 5, 1985, 29-34.
466. Verbovetskiy, A.A. (). Unit for access to a holographic memory. OTIZD, no. 37, 1985, 1061618.
467. Zubov, V.A.; Krayskiy, A.V.; Sultanov, T.T. (FIAN). Modeling the operation of optical correlator circuits. KRSFA, no. 3, 1985, 62-65. (RZFZA, 85/10L639).

E. HOLOGRAPHY

468. Adam, A. (). Evaluation of holographic interferograms using Haidinger fringes (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 224. (RZRAB, 85/10Ye614).
469. Artem'yev, Ye.F.; Bepalov, V.G.; Bryskin, V.Z.; Vorzobova, N.D.; Yermolayev, M.M.; Stasel'ko, D.I. (). Technique for obtaining monochrome holographic portraits reconstructed in white light. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 107-116.
470. Ashcheulov, Yu.V.; Petnikov, A.Ye.; Sukhanov, V.I. (). Stability of holographic gratings of reoxane. PZTFD, no. 19, 1985, 1175-1177.
471. Bablumyan, A.S.; Bagdasaryan, M.G.; Putilin, A.N. (). Device for matching a planar waveguide with an optical fiber [for hologram recording]. Mikroelektronnyye sistemy i SVCh ustroystva. MIET. Moskva, 1984, 50-54. (RZFZA, 85/10Zh404).
472. Bakut, P.A.; Zimin, Yu.A.; Vol'pov, A.L. (). Incoherent holography and active Michelson interferometry methods for the treatment of light fields. OPSPA, vol. 59, no. 3, 1985, 701-702.
473. Barbanel', I.S.; Mal'tsev, M.G. (). Holographic analysis of the characteristics of relief recording media. OPSPA, v. 58, no. 4, 1985, 871-878.
474. Belousov, N.A.; Chernyshov, Ye.E.; Shchennikov, M.I. (). Digital modeling of radioholograms of non-steady-state objects. RATEA, no. 4, 1985, 77-78. (RZFZA, 85/9Zh333).
475. Borisenok, N.I.; Yermolayev, M.M.; Lyaplin, Yu.A.; Sementsov, S.S.; Yakimov, K.S. (). External effects on the recording of volume reflection holograms. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 41-50.
476. Bruy, Ye.B.; Kliot-Dashinskaya, I.M.; Kursakova, A.M.; Klimzo, E.F. (). Updating of a method for synthesizing and processing PE-2 photoemulsions for recording image holograms. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 117-123.



477. Dekanozishvili, G.G.; Brodzeli, M.I.; Alimbarashvili, N.A.; Gilel's, A.M.; Yeligulashvili, I.A. (). Layers based on alpha-naphthylamine and carbon tetrabromide as media for holographic recording of information. ZNPFA, no. 5, 1985, 379-381.
478. Dovgiy, Ya.O.; Kityk, I.V.; Aleksandrov, Yu.M.; Kolobanov, V.N.; Makhov, V.N.; Mikhaylin, V.V. (). Optical functions of laminar crystals of cadmium dihalides in the energy range 4-25 eV. ZPSBA, vol. 43, no. 4, 1985, 650-654.
479. Gal'pern, A.D.; Bruy, V.P.; Paramonov, A.A.; Kalinina, I.V. (). Recording and projection of composite focused image holograms. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 50-64.
480. Gal'pern, A.D.; Rozhkov, B.K. (). Realization of a raster holographic three-dimensional projection image. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 5-21.
481. Grigor'yev, I.S.; Semerok, A.F.; Firsov, V.A.; Chanin, A.V. (). Two-frequency resonance hologram from excited sodium atoms. ZETFA, vol. 89, no. 3, 1985, 833-835.
482. Grinev, A.Yu.; Svet, V.D.; Temchenko, V.S. (). Coherent optical processor of ring antenna arrays. AVMEB, no. 5, 1985, 56-63.
483. Holography in science and industry. TKTEA, no. 10, 1985, 78-79.
484. Ivanov, A.V.; Knyaz'kov, A.V.; Saykin, A.S.; Fedulov, V.M. (LPI; GOI). Study on the effective thickness of holographic gratings in PLZT ceramics. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 94-95.
485. Kostyshin, M.T.; Romanenko, P.F. (IPANUK). Photosensitive semiconductor--metal--recording-medium systems based on photostimulated diffusion. KVELA, no. 29, 1985, 98-104.
486. Kramar, V.K.; Barantseva, S.Ya. (LETI). Development of holography in the microwave range. Informelektro. Deposit, no. 8let-85, 20 May 1985, 18 p. (RZFZA, 85/9Zh334).

487. Krumin', A.E.; Knyaz'kov, A.V.; Lobanov, M.N.; Seglin'sh, Ya.A. (NIIFTT; LPI). Effect of noisy holographic gratings on the energy exchange between the recording light beams in PLZT ceramics. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 85-87.
488. Markov, V.B.; Shishkov, V.F. (IFANUK). Amplitude and phase characteristics of radiation reconstructed by a three-dimensional holographic grating. UFZHA, no. 9, 1985, 1321-1326.
489. Mazurenko, Yu.T. (). Recording and reconstruction of light pulses by means of three-dimensional holographic spectrograms. OPSPA, vol. 59, no. 3, 1985, 608-614.
490. Nefed'yev, L.A. (). Three-level echo-hologram formation. OPSPA, vol. 59, no. 4, 1985, 841-846.
491. Nemtinov, V.B. (). Structural methods in optical information processing. Primeneniye metodov opticheskoy obrabotki izobrazheniy. FTI. Leningrad, 1985, 114-121.
492. Nowak, J.; Zajac, M. (). Numerical investigation of two-point resolution in holographic imaging (in English). OPAPB, no. 3, 1984, 355-363. (RZFZA, 85/10L694).
493. Ovsepyan, R.K. (IFI). Possibility of reducing hologram noise in lithium niobate crystals. IAAFA, no. 5, 1985, 282-295.
494. Podpalyy, Ye.A.; Smelov, V.S.; Stankevich, T.F. (MIIT). Evaluating the quality of hologram recording on two-layer magneto-optic structures. MIIT. Trudy, no. 751, 1984, 24-28. (RZRAB, 85/9Ye801).
495. Seglin'sh, Ya.A. (NIIFTT). Possibility of developing an optical light oscillator based on transparent ferroceramics. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 88-90.
496. Seglin'sh, Ya.A.; Krumin', A.E. (NIIFTT). Holographic determination of the relationship of the tensor components in the square-law electrooptic effect in PLZT. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 91-93.

497. Seglin'sh, Ya.A.; Krumin', A.E. (NIIFTT). Determining the contribution of the diffusion mechanism to PLZT in holographic recording. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 96-98.
498. Shkunov, V.V.; Yakovleva, T.V. (). Visibility of an interference pattern reconstructed by a two-exposition hologram of a diffusively reflecting object. OPSPA, vol. 59, no. 3, 1985, 680-682.
499. Stasel'ko, D.I. (). Study on color images generated by pulsed transmission holograms and reconstructed by c-w laser radiation. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 95-106.
500. Sultanova, N.; Kasprzak, H. (). Influence of film nonlinearity on the Rayleigh criterion of resolution and energy concentration (in English). OPAPB, no. 4, 1984, 443-450. (RZFZA, 85/10L700).
501. Tuchkevich, V.M.; Gurevich, S.B. (FTI). Holography in space orbit. NASRD, no. 3, 1985, 35-39. (RZFZA, 85/10L714).
502. Vanin, V.A. (). Two-step methods for obtaining image holograms. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 21-41.
503. Vasil'yev, M.P.; Vishnevskaya, M.A. (). Application of holographic filtration to acoustooptic devices. RAELA, no. 10, 1985, 2027-2031.
504. Vorzobova, N.D. (). Study on the holographic characteristics of VRP photoplates. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 65-75.
505. Vsevolodov, N.N.; Poltoratskiy, V.A. (IBFiz). Holograms in biological color photography biochrome materials. ZETFA, no. 10, 1985, 2093-2094.
506. Yeliseyev, A.I. (LETI). Method for holographic recording of electrical signals. OTIZD, no. 39, 1985, 936717.
507. Zeylikovich, I.S.; Platonov, Ye.M. (). Holographic optic interferometers. ZPSBA, vol. 43, no. 3, 1985, 484-488.

F. LASER-INDUCED CHEMICAL REACTIONS

508. Bagratashvili, V.N.; Burimov, V.N.; Deyev, L.Ye.; Zabolotnykh, A.V.; Sviridov, A.P. (). Multiphoton IR dissociation of  $C_2F_6$  and synthesis of  $CF_3Br$  under gas-phase self-catalysis conditions. KHFID, no. 6, 1985, 7790782. (RZFZA, 85/10L251).
509. Gabibov, F.S.; Rizakhanov, M.A. (). Reversible subthreshold photothermal conversions of electron trapping centers in CdS:Ag. IANFA, no. 4, 1985, 801-805. (RZFZA, 85/9L1024).
510. Khoroshilova, Ye.V. (IOF). Reactions of alpha, Beta-unsaturated acids under high pressures, shift deformation and high-power UV laser irradiation. IOF. Dissertation, 1985, 23 p.
511. Laptev, V.B.; Ryabov, Ye.A.; Tyakht, V.V.; Furzikov, N.P. (ISAN). Effect of rotational and V-T relaxation on multiphoton IR excitation and dissociation of  $CF_3Br$ . ISAN. Preprint, no. not given, 1985, 59 p. (RZFZA, 85/10L253).
512. Yesadze, G.G. (IOF). Fragmentation of vibrationally excited molecules under the action of electron impact and UV laser radiation. IOF. Dissertation, 1985, 17 p.

G. MEASUREMENT OF LASER PARAMETERS

513. Abramski, K.M. (). Analysis of a frequency stabilization system for gas lasers. RZETA, no. 3, 1984, 813-822. (RZRAB, 85/9Ye171).
514. Achasov, O.V.; Fomin, N.A.; Shabunya, S.I. (ITMO). Error analysis of parameter determination of laser active media by spectral distribution of gain characteristics. KVEKA, no. 9, 1985, 1838-1845.
515. Belousov, P.Ya.; Meledin, V.G. (). Simple precision system for remote-controlled positioning of lasers. AVMEB, no. 5, 1985, 105-106.
516. Gol'dort, V.G.; Gutov, G.S.; Zakhar'yash, V.F.; Kirillov, Yu.F.; Matyugin, Yu.A.; Timchenko, B.A.; Chebotayev, V.P. (ITF). Absolute measurement of He-Ar 2.39  $\mu m$  laser frequency. KVEKA, no. 10, 1985, 2176-2179.
517. Golubev, A.D.; Krupkin, V.Kh.; Neudachin, A.V. (LITMO). Measurement system to study the spatial-energy characteristics of pulsed laser radiation. IVUBA, no. 10, 1985, 77-81.

518. Gulin, A.V.; Ishchenko, Ye.F. (MEI). Experimental study on quasi-Gaussian beams. MEI. Nauchnyye trudy, no. 33, 1984, 59-63. (RZFZA, 85/10L957).
519. Ignatkov, V.D.; Polishchuk, S.V.; Kulish, N.R. (IPANUK). Silicon-on-sapphire photoresistors. KVELA, no. 29, 1985, 96-97.
520. Karabutov, A.A.; Platonenko, V.T.; Chupryna, V.A. (MGU). Optoacoustic method for nondisturbing measurement of laser pulse energy and for control of mirror parameters. KVEKA, no. 10, 1985, 2126-2129.
521. Klement'yev, V.G.; Kolesov, G.V. (). Instrument for measuring the duration of a light pulse. OTIZD, no. 10, 1985, 1086884. (RZRAB, 85/9Ye584).
522. Klimkov, Yu.M.; Kuz'mina, T.I. (). Evaluating the quality of laser optical systems. IVUBA, no. 5, 1985, 70-74. (RZRAB, 85/9Ye572).
523. Mueller, H.U.; Schurig, T.; Herrmann, R. (). Method for frequency stabilization of c-w IR gas lasers. Patent GDR, no. 219089, 20 Feb 1985. (RZRAB, 85/9Ye168).
524. Percak, H. (). Optimization of passive frequency stabilization in gas lasers. PAUKA, no. 12, 1984, 357-359, 383, 384. (RZRAB, 85/9Ye165).
525. Privalov, V.Ye.; Smirnov, Ye.A. (). Power stabilization in gas-discharge lasers. MTRLB, no. 9, 1985, 21-30.
526. Shepelenko, A.A.; Shulyat'yev, V.B. (ITPM). Measurement of the divergence of CO<sub>2</sub> laser radiation. PRTEA, no. 5, 1985, 157-158.
527. Zhdanovskiy, V.A.; Zolotovskaya, Ye.F.; Snopko, V.N.; Tsaryuk, O.V. (IFANB). Experimental study on the polarization of CO<sub>2</sub> laser radiation. IFANB. Preprint, no. 369, 1985, 48 p. (RZFZA, 85/10L958).

#### H. LASER MEASUREMENT APPLICATIONS

##### 1. Direct Measurement by Laser

528. Adamiec, M.; Bagrowski, J.; Luckner, H.; Marczak, J.; Ziolkowski, Z. (). Ultra-high-speed photography of explosive processes by means of a dye laser. BWATA, no. 1, 1985, 25-38. (RZFZA, 85/10L754).

529. Adomaytis, E.I.; Dobrovol'skis, Z.P.; Krotkus, A.I. (IFPV). Device to measure drift velocities of current carriers. OTIZD, no. 35, 1985, 1180817.
530. Akhoyan, A.P.; Vitrikhovskiy, N.I.; Garyagdyev, G.; Gorodetskiy, I.Ya.; Korsunskaya, N.Ye.; Nuryagdyev, O. (). Recombination processes in  $Mg(x)Cd(1-x)Te$  semiconductor solutions. UFZHA, no. 9, 1985, 1412-1416.
531. Akos, Gy.; Csomor, R.; Hejjas, I.; Marthon, P. (). Laser scanning devices for optical gauging (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 61. (RZRAB, 85/10Ye441).
532. Aksenov, Ye.T.; Lipovskaya, M.Yu. (LPI). Study on the processes for the formation of photoresistive periodic structures. IVUBA, no. 9, 1985, 70-74.
533. Aleshin, V.A.; Dubrov, M.N.; Smelyakov, L.V. (). Optical measurement of displacements and deformations based on three mirror laser interferometers. AVMEB, no. 5, 1985, 101-103.
534. Ambartsumyan, R.V.; Yeremeyev, B.V.; Zakharov, S.D.; Zemskov, K.I.; Kazaryan, M.A.; Petrash, G.G.; Chertanov, S.P. (). Method for studying the motions of living cells (red blood corpuscles) by means of laser-projection microscopy. KRSFA, no. 10, 1985, 44-47.
535. Andrushchak, Ye.A.; Silin, I.V.; Klimov, S.A.; Ruleva, S.S.; Stepanov, V.I.; Tychinskiy, V.P. (). Homodyne laser interferometer for measuring the vibrational parameters of objects. OTIZD, no. 40, 1985, 1188541.
536. Antipenko, A.G.; Novikov, V.P.; Novikov, M.A. (). Optoacoustic method with application of total reflection. ZPSBA, vol. 43, no. 4, 1985, 640-644.
537. Apostol, D.; Blanaru, C.; Damian, V.; Gornic, G.; Toma, D.; Nitu, S. (). Optical interferometric contactless measuring instrument. SCEFA, no. 3, 1985, 313-316. (RZFZA, 85/9L1069).
538. Arakelov, A.G.; Berozashvili, Yu.N.; Gekker, I.R.; Karkashadze, D.D.; Loza, O.T.; Machavariani, S.Z.; Mkheidze, G.P.; Natsvlishvili, A.G.; Savin, A.A.; Tsagareli, R.V.; Tsopp, L.E.; Chirakadze, A.A. (IOF). Absolute measurement of pulsed microwave power by the Pockels effect on a gallium phosphide crystal. ZTEFA, no. 10, 1985, 2031-2034.

539. Arkhipov, V.M. (). Multibeam interferometer. OTIZD, no. 48, 1984, 1132148. (RZFZA, 85/9L539).
540. Barannik, I.G.; Sachkov, V.I.; Trubnikov, A.I. (). Standardization and metrological safeguards of optico-physical measurement. IZTEA, no. 9, 1985, 26-30.
541. Bayborodin, Yu.V.; Koren', N.N.; Mashchenko, A.I. (KPIA). Fiberoptic instrument for measuring angular velocity. VKPRB, no. 22, 1985, 109-112. (RZFZA, 85/10A91).
542. Bazarov, A.Ye.; Zhuchkov, N.A.; Polyakov, Ye.V.; Semenov, A.T. (). Photomixing signal contrast in a multimode ring interferometer. KVEKA, no. 9, 1985, 1970-1973.
543. Bezuglyy, B.A.; Lanin, S.N.; Nizovtsev, V.V. (MGU). Method for determining viscosity. OTIZD, no. 40, 1985, 1188588.
544. Bogar, I.; Adam, A.; Fuzessy, Z. (). Holographic interferometer for measuring displacement and vibration of industrial objects (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 226. (RZRAB, 85/10Ye623).
545. Borisov, V.A.; Bykov, A.P.; Ignatov, A.V.; Moskalenko, A.I.; Postnov, A.I. (). Characteristics of materials for flexible elements of tensor resistor measuring devices. IZTEA, no. 9, 1985, 49-50.
546. Busurin, V.I.; Milovzorov, O.V. (MAI). Mechanical action converter based on the optical tunneling effect. IVUBA, no. 9, 1985, 75-78.
547. Bykovskiy, Yu.A.; Zarubin, A.M.; Larkin, A.I. (MIFI). Method for recording particle tracks in track detectors. ZTEFA, no. 10, 1985, 2067-2069.
548. Chistyakov, A.; Laputina, O.D.; Yesakova, I.N. (). Measurement of the parameters of infra-low-frequency oscillations. IZTEA, no. 10, 1985, 15-16.
549. Domoryad, I.A.; Kolomiyets, B.T.; Lyubin, V.M.; Shilo, V.P. (FTI). Reversible gamma-structure transformations in vitreous AsSe. FKSTD, no. 5, 1985, 595-597.

550. Dzhapiashvili, V.P.; Kurkhuli, G.V.; Dalakishvili, G.L.; Kvernadze, A.M. (AAO). Holographic interferometric study on the mechanical properties of the Sikhote-Alinsk meteorites. SAKNA, v. 119, no. 3, 1985, 501-504.
551. Dzhun', I.V.; Vasil'yeva, E.A. (UkrIIVKh). Study on instability in directional laser radiation from the LZP-1 zenith instrument. TsNIIGAiK. Deposit, no. 179gd-85, 22 May 1985, 9 p. (RZFZA, 85/9L1089).
552. Ganzherli, N.M.; Gurevich, S.B. (). Holographic interferometry in real time. *Primeneniye metodov opticheskoy obrabotki izobrazheniy*. FTI. Leningrad, 1985, 62-87.
553. Ganzherli, N.M.; Gurevich, S.B.; Katushkina, N.V.; Kolikov, V.M.; Konstantinov, V.B.; Maurer, I.A.; Chernykh, D.F. (). Possibilities of using holographic interferometry in real time to analyze proteins in blood plasma. *Primeneniye metodov opticheskoy obrabotki izobrazheniy*. FTI. Leningrad, 1985, 88-90.
554. Gus'kova, M.S.; Kolesov, G.V.; Korzhenevich, I.M.; Lebedev, V.B.; Stepanov, B.M.; Yudin, A.V. (). Frequency pulling of subpicosecond light pulses by milk glass. *IZTEA*, no. 5, 1985, 28-30. (RZRAB, 85/10Ye449).
555. Gyimesi, F.; Fuzessy, Z. (). Difference holographic interferometry and its prospects (in English). *Symposium Optika '84, Budapest, 24-27 Apr 1984*. Abstracts, Budapest, 1984, 227. (RZRAB, 85/10Ye624).
556. Kalinin, A.N.; Ginak, S.N.; Vidmant, F.V.; Shtalenkov, N.F. (). Holographic interferometer for measuring the shapes of spherical optical surfaces. *OTIZD*, no. 39, 1985, 1186940.
557. Karpov, A.V.; Kolyadin, A.I.; Kravchenko, A.V.; Mukhina, T.I. (GOI). Measurement of the directional scattering index in optical glass. *OPMPA*, no. 10, 1985, 40-41.
558. Kiyachenko, Yu.F.; Litvinov, Yu.I. (VNIFTRI). Increase of spatial quantities in a liquid approaching the temperature of vitrification. *ZFPRA*, vol. 42, no. 5, 1985, 215-217.



559. Klim, B.P.; Pochapskiy, Ye.P. (). Using pulsed lasers to select measurement information. VINITI. Deposit, no. 4124-85, 11 Jun 1985, 44-46. (RZFZA, 85/9L1066).
560. Klimenko, I.S.; Ryabukho, V.P.; Feduleyev, B.V. (MFTI). Localization of interference bands and effect of the oscillation of visibility in speckle interferometry. ZTEFA, no. 10, 1985, 2045-2069.
561. Klimkin, V.F.; Lomakin, G.S. (). Spatial resolution and accuracy of interferometry of phase micro objects. ZPMFA, no. 2, 1985, 40-45.
562. Klochkov, V.P. (). Fundamentals of laser Doppler anemometry. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 24-43.
563. Klochkov, V.P. (). Basic optical elements and circuits for optical Doppler radars. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 92-204.
564. Klochkov, V.P.; Kozlov, L.F. (). Electronic systems for discrimination and processing of Doppler signals. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 313-406.
565. Klochkov, V.P.; Kozlov, L.F. (). Use of optical Doppler radars in aerodynamics. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 407-492.
566. Klochkov, V.P.; Kozlov, L.F. (). Use of optical Doppler radars in hydrodynamics. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 493-558.
567. Klochkov, V.P.; Kozlov, L.F. (). Study on two-phase flows. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 559-580.
568. Klochkov, V.P.; Kozlov, L.F. (). Direct shadow and shadow methods for studying compressible flows. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 614-652.

569. Kol'tsov, I.M.; Rozov, B.S.; Sidorenko, Yu.P. (MIFI). Device for measuring linear and angular displacements of an object. OTIZD, no. 38, 1985, 1185073.
570. Kruzevich, Yu.K.; Sal'nikov, Yu.V.; Sedova, A.D. (). Use of optical information processing for industrial monitoring of optical surfaces. *Primeneniye metodov opticheskoy obrabotki izobrazheniy*. FTI. Leningrad, 1985, 109-113.
571. Larionov, N.P. (GOI). Interferometer with a synthesized hologram for the control of convex and planar surfaces. OPMPA, no. 10, 1985, 29-32.
572. Ledneva, G.P.; Sardyko, V.I. (IFANB). Ring laser for measuring angular velocities and displacements. OTIZD, no. 39, 1985, 743089.
573. Marusiy, T.Ya.; Reznikov, Yu.A.; Reshetnyak, V.Yu.; Khizhnyak, A.I. (IFANUK; KGU). Effect of an orienting surface on the scattering of light in a nematic liquid crystal. UFZHA, no. 9, 1985, 1351-1353.
574. Medvedev, V.S.; Nesterov, V.V.; Pervomayskiy, V.A. (). Measurement of the oscillations of the earth's crust with a fiberoptic laser interferometer-deformograph. AVMEB, no. 5, 1985, 79-82.
575. Myagchenko, Yu.A.; Padun, N.G.; Slobodnyuk, A.V. (). Polarimetry under conditions of excess noise in the light source. ZPSBA, v. 42, no. 4, 1985, 676-679.
576. Nagibina, I.M.; Aleksandrov, S.A.; Sitnik, D.N. (LITMO). Study on the spatial structure of an interference field. IVUBA, no. 9, 1985, 65-69.
577. Nagibina, I.M.; Bol'shakov, O.P.; Il'inskaya, T.A. (). Results of studying bone and soft tissue biomedical specimens by laser interferometry (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 121. (RZRAB, 85/10Ye592).
578. Naumov, A.P. (). Evaluating the phase and accuracy of an industrial laser viewing system for shaping remote images. LIAP. *Mezhvuzovskiy sbornik*, no. 171, 1984, 117-122. (RZRAB, 85/9Ye738).
579. Nesterova, Z.V.; Aleksandrov, I.V. (). Effect of electronic and nuclear hyperpolarizabilities of molecules on the formation of bending light-pulse shock waves in liquid media. OPSPA, vol. 59, no. 3, 1985, 532-536.

580. Neuleib, H.; Pieves, H. (). Wavelength of Lamb dip stabilized He-Ne lasers for distance measurement. FGRTA, no. 5, 1985, 208-211. (RZRAB, 85/10Ye454).
581. Nikolayev, Ye.P.; Obukhov, A.S.; Chubarov, M.S. (). Calculating the errors in photon count measurements due to the photon correlation effect. IZTEA, no. 5, 1985, 11-12. (RZRAB, 85/10Ye450).
582. Nowak, R.; Zajac, M. (). Enhancement of linear elements in black and white images by optical pseudocoloring. OPAPB, no. 3, 1984, 349-354. (RZFZA, 85/10L523).
583. Palme, M.; Burghoff, U.; Stohn, I. (). Integrated optical element. Patent GDR, no. 213070, 29 Aug 1984. (RZRAB, 85/9Ye662).
584. Petrovich, V.I. (). Vibration speed interference meter. IZTEA, no. 10, 1985, 13-14.
585. Rinkevichyus, B.S.; Tolkachev, A.V.; Sutorshin, V.N.; Chebunin, V.G. (MEI). Experimental study on laser Doppler anemometers with lightguides. MEI. Nauchnyye trudy, no. 33, 1984, 54-58. (RZFZA, 85/10L1139).
586. Rozenbergs, Ya.A.; Seglin'sh, Ya.A. (NIIFTT). Exposure meter for photoelectric and holographic measurements. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 197.
587. Ryzhkov, S.S.; Lipatnikov, S.I.; Zolotoy, Yu.G. (). Holographic interferometric visualization of detached flows in jet flows around plates. Sudovoye energomashinostroyeniye. Nikolayev, 1984, 41-47. (RZMKA, 85/9B811).
588. Sardyko, V.I. (IFANB). Ring laser [for measuring angular velocities and displacements]. OTIZD, no. 39, 1985, 750624.
589. Shorin, V.P.; Zhuravlev, O.A.; Logak, L.G.; Medinskaya, I.N.; Fedosov, A.I. (KuAI). Holographic apparatus for the study of two-phase flows. PRTEA, no. 5, 1985, 158-161.
590. Sitnikov, L.L.; Deniskin, S.A.; Latukhin, D.V.; Kaplun, M.G.; Fel'dman, A.I. (UralNIITP). Use of laser technology in pipe production. STALA, no. 9, 1985, 55-58.

591. Sobolev, V.S.; Kashcheyeva, G.A. (). Variance and spectral density of the product of instantaneous frequency and amplitude of a multifrequency Doppler signal. RAELA, no. 9, 1985, 1845-1847.
592. Sorokin, Yu.M. (GGU). Device for laser beam scanning. OTIZD, no. 36, 1985, 934820.
593. Soskin, M.S.; Klochkov, V.P. (). Light sources for optical Doppler radars. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 205-222.
594. Soskin, M.S.; Klochkov, V.P. (). Interferometry and holography in applied aerohydrodynamics. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 653-697.
595. Sud'yenkov, Yu.V.; Daubayev, U.; Makarevich, I.P.; Morozov, V.A.; Nedbay, A.I. (IGU). Interferometers for measuring dynamic displacements. VINITI. Deposit, no. 4024-85, 10 Jun 1985, 14 p. (RZFZA, 85/9L538).
596. Suminov, V.M.; Grebenyuk, Ye.I.; Grebnev, A.A.; Gusarova, T.V.; Vitman, A.D.; Borodina, L.V. (MATI). Device to control defects in plane surfaces. OTIZD, no. 35, 1985, 1180764.
597. Suminov, V.M.; Panfilova, Ye.Ye. (). Interference holographic control of cylindrical resonators for frequency pressure sensors in the operating pressure range. DEFKA, no. 3, 1985, 87-90. (RZFAB, 85/10Ye620).
598. Tymchik, G.S. (KPIA). Device to measure the rate of wear of a cutting instrument. OTIZD, no. 40, 1985, 1188581.
599. Vasil'yeva, E.A.; Dzhun', I.V.; Danilovskiy, M.I. (UkrIIVKh). Study on the UNLZ-U5 laser directional indicator. TsNIIGAIK, no. 180gd-85, 22 May 1985, 9 p. (RZFAB, 85/9Ye685).
600. Verbin, S.Yu.; Permogorov, S.A.; Reznitskiy, A.N.; Kozlovskiy, V.I.; Korostelin, Yu.V. (FTI). Localized exciton luminescence in a  $ZnS(1-x)Se(x)$  solid solution. FTVTA, no. 9, 1985, 2756-2759.
601. Vitushkin, L.F.; Kazakov, A.Ya. (). Effect of residual gas on the accuracy of measuring small shifts of test objects by interference systems. OPSPA, vol. 59, no. 4, 1985, 865-870.

602. Vitushkin, L.F.; Smirnov, M.Z. (). Linear large-base interferometric schemes. OPSPA, vol. 59, no. 3, 1985, 661-665.
603. Vlasov, N.G.; Matsonashvili, R.B. (). Interference measurement method. OTIZD, no. 36, 1985, 1182255.
604. Volkov, S.A. (). Study on acoustic fields by optical probing. IVUSA, no. 10, 1985, 118-122.
605. Vus, B.S.; Plyatsko, G.V.; Zhirovetskiy, V.M. (IPPMM). Optical displacement sensor. OTIZD, no. 40, 1985, 1188536.
606. Vyacheslavov, L.N.; Zharov, V.F. (IYaFSOAN). Development of high-power solid-state lasers for plasma diagnostics by Thomson scattering. IYaFSOAN. Preprint, no. 42, 1985, 25 p. (RZFZA, 85/9L1064).
607. Wesolowski, P. (). In-plane strain analysis by means of reflection holography (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 122. (RZRAB, 85/10Ye625).
608. Yesepkina, N.A.; Zverev, Yu.K.; Lavrov, A.P.; Fridman, P.A.; Chukanov, O.P. (SAO). Laser leveler for adjusting the RATAN-600. Astrofizicheskiye issledovaniya. SAO. Izvestiya, no. 20, 1985, 131-138. (RZFZA, 85/10L1153).
609. Yevdokimov, M.V.; Kolin'ko, V.G.; Poroshina, M.Yu.; Priyetzhev, A.V. (MGU). Energy characteristics of a signal from a laser Doppler anemometer under partial spatial coherence of probing radiation. KVEKA, no. 10, 1985, 2052-2058.
610. Yevtikhiyeva, O.A.; Rinkevichyus, B.S. (MEI). Device for recording transient fields of a graded index. OTIZD, no. 36, 1985, 1072590.
611. Zakirov, Sh.Kh.; Mirzayev, A.T.; Sharakhimov, M.Sh.; Shayakhov, R.F. (). Wideband optical phase detector. IZTEA, no. 9, 1985, 47-48.
612. Zaslavskiy, B.I.; Yur'yev, B.V. (). Convective flow from a suddenly appearing horizontal plane source of heat. ZPMFA, no. 5, 1985, 69-76.
613. Zinov'yev, P.V.; Lopina, S.V.; Malyukin, Yu.V.; Naboykin, Yu.V.; Silayeva, N.B.; Samartsev, V.V. (). Superradiant pulse delay within a pyrene doped diphenyl crystal. ZPSBA, vol. 43, no. 4, 1985, 687-690.

## 2. Laser-Excited Optical Effects

614. Ageyev, L.A.; Blokha, V.B.; Miloslavskiy, V.K. (KhGU). Herschel effect on photoinduced dichroism in thin-film Ag-AgCl and Ag-AgBr systems. ZNPFA, no. 5, 1985, 347-352.
615. Alekperov, O.Z.; Golubev, V.G.; Ivanov-Omskiy, V.I.; Mekhtiyev, A.Sh. (). Effect of electron-electron interaction on the cyclotron resonance linewidth in n-GaAs. PSSBB, v. B127, no. 2, 1985, K171-K174. (RZFZA, 85/9N393).
616. Altayskiy, Yu.M.; Pletyushkin, A.A.; Rodionov, V.N. (KPIA). Temperature dependence of a photoelectric current in cubic silicon carbide. UFZHA, no. 9, 1985, 1417-1420.
617. Andreyev, A.A. (). Problem of obtaining quantum kinetic equations for free carriers in multiple-valley semiconductors in a laser wave fields. VINITI. Deposit, no. 3210-85, 12 May 1985, 14 p. (RZFZA, 85/10N421).
618. Arutyunyan, A.G.; L'vov, K.M.; Mnatsakanyan, A.O.; Oganesyanyan, V.A.; Shakhnazaryan, N.V. (). Light quenching of the fluorescence of aromatic amino acids. ZPSBA, vol. 43, no. 3, 1985, 420-422.
619. Ashmarin, I.I.; Bykovskiy, Yu.A.; Podol'skiy, B.S.; Potapov, M.M.; Chistyakov, A.A. (MIFI). Selective effect of laser radiation on molecular crystals. KVEKA, no. 9, 1985, 1908-1913.
620. Balykin, V.I.; Zuyeva, T.V.; Letokhov, V.S.; Minogin, V.G. (ISAN). resonance laser radiation pressure for the collimation of atomic beams. ZTEFA, no. 9, 1985, 1755-1762.
621. Bazyk, A.I.; Dryapiko, N.K.; Kovalenko, V.F.; Peka, G.P. (). Effect of carrier drift on the impurity photoluminescence of variband solid solutions of  $\text{Al}(x)\text{Ga}(1-x)\text{As}$ . UFZHA, no. 10, 1985, 1515-1518.
622. Belyayev, A.K.; Devdariani, A.Z.; Sebyskin, Yu.N. (). Effect of quasi-bound states on radiation and absorption processes under atomic collisions. OPSPA, vol. 59, no. 3, 1985, 505-510.
623. Bergner, H.; Brueckner, V.; Kerstan, F.; Nowick, W. (). Picosecond processes of laser-excited carriers in films of silicon on sapphire. PSSBB, v. B128, no. 2, 1985, 769-777. (RZFZA, 85/10N714).

624. Bokhan, P.A. (ITF). Abnormally rapid relaxation of the metastable states of Ca<sup>+</sup>, Eu, and Eu<sup>+</sup> and collision lasing using Ca<sup>+</sup> Eu<sup>+</sup>, and Sr<sup>+</sup> ions. ZFPRA, vol. 42, no. 8, 1985, 335-337.
625. Borisov, Ye.N.; Penkin, N.P.; Red'ko, T.P. (). Diffusion coefficients of 5<sub>(sub3)</sub>P<sub>(sub0,1,2)</sub> strontium atoms in argon. OPSPA, v. 59, no. 3, 1985, 707-710.
626. Borshch, A.A.; Brodin, M.S.; Lukomskiy, V.P.; Semioshko, V.N. (IFANuk). A method for creating intrinsic optical bistability and a bistable optical cell (its variations). OTIZD, no. 36, 1985, 1182472.
627. Brodin, M.S.; Kadan, V.N.; Matsko, M.G. (). Resonant two-photon absorption by exciton molecules in PbI<sub>(sub2)</sub> and HgI<sub>(sub2)</sub> crystals. FTVTA, no. 3, 1985, 776-780. (RZFZA, 85/9N493).
628. Brodin, M.S.; Kadan, V.N.; Matsko, M.G. (IFANUK). Exciton gas generated by hyper-Raman scattering processes in HgI<sub>(sub2)</sub> crystals. UFZHA, no. 10, 1985, 1464-1467.
629. Didenko, A.Ya.; Lemeshko, B.D.; Ostrovskiy, V.A. (MIFI). Electrically induced sensitizing of silver halide emulsions. ZNPFA, no. 5, 1985, 376-379.
630. Dubetskiy, B.Ya. (ITF). Heat flow in a gas exposed to radiation in resonance with a vibration-rotational Doppler-broadened transition. KVEKA, no. 9, 1985, 1955-1957.
631. Gribkovskiy, V.P.; Khomich, A.V.; Gaponenko, S.V.; Zimin, L.G.; Perov, P.I. (). Modulation of optical absorption in bismuth silicate crystals by intense laser radiation. MKETA, no. 3, 1985, 273-276. (RZFZA, 85/10L384).
632. Grigor'yev, Yu.A.; Grishina, S.P.; Konin, K.P.; Osvenskiy, V.B.; Linnik, L.F.; Linnik, L.G.; Sal'kov, Ye.A. (IPANuk). Study on recombination processes at high injection levels in semi-insulating "undoped" gallium arsenide. KVELA, no. 29, 1985, 79-82.
633. Grinchuk, V.A.; Kazantsev, A.P.; Kuzin, Ye.F.; Nagayeva, M.L.; Ryabenko, G.A.; Surdutovich, G.I.; Yakovlev, V.P. (FIAN). Scattering of atoms by a standing light wave. FIAN. Trudy, no. 160, 1985, 204-220. (RZFZA, 85/10L815).

634. Kashkarov, P.K.; Petrov, A.V. (). Photoinjection phenomena in Ge-GeO(sub2) structures under pulsed laser irradiation. MKETA, no. 3, 1985, 277-279. (RZFZA, 85/9N457).
635. Kitayeva, V.F.; Kroo, N.; Sobolev, N.N.; Sukhorukov, A.P.; Fedorovich, V.Yu.; Chillag, L. (FIAN). Excitation of director auto-oscillations of a nematic liquid crystal. ZETFA, vol. 89, no. 3, 1985, 905-910.
636. Kovarskiy, V.A. (IPFANM). Induced Davidov splitting in the optical spectra of crystals. FTVTA, no. 9, 1985, 2831-2833.
637. Kryuchkov, G.Yu. (IFI). Grouping and antigrouping of photons in a spectrum of atomic radiation induced by a resonant field. IAAFA, no. 5, 1985, 245-251.
638. Leonas, V.B.; Rodionov, I.D. (). Studies on high-energy scattering of atoms and molecules. UFNAA, v. 146, no. 1, 1985, 7-34. (RZFZA, 85/10D161).
639. Litovchenko, V.G.; Korbutyak, D.V.; Lashkevich, Ye.G. (IPANUK). Characteristics of excitons and an electron-hole plasma in quasi-two-dimensional structures. KVELA, no. 29, 1985, 70-78.
640. Mikhaylov, M.M. (NIIYaFEA). Photoannealing of defects in irradiated zinc oxide. IVUFA, no. 9, 1985, 3-7.
641. Mikhaylov, M.M. (NIIYaFEA). Thermal annealing of defects in irradiated zinc oxide. IVUFA, no. 9, 1985, 60-65.
642. Mugenski, E.; Sywinski, R. (). Low-temperature photoluminescence of Eu<sup>2+</sup> aggregate centers in a NaCl matrix. PSSBB, v. B128, no. 1, 1985, K75-K79. (RZFZA, 85/9L451).
643. Plyatsko, S.V.; Gromovoy, Yu.S.; Sizov, F.F. (IPANUK). Effect of IR radiation on the properties of Pb(1-x)Sn(x)Te. KVELA, no. 29, 1985, 93-96.
644. Ritze, H.H. (Rittse, G.G.); Albrecht, H. (Al'brekht, G.); Radloff, W. (Radloff, V.); Stert, V. (Shtert, V.) (). Study on IR multiquantum excitation of molecules dependent on the polarization of radiation. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 89-94.



645. Rueckmann, I.; Yarashyunas, K.; Gaubas, E. (). Transient light-induced gratings due to excitons in CdSe. PSSBB, v. B128, no. 2, 1985, 627-643. (RZFZA, 85/9N492).
646. Semak, D.G.; Turyanitsa, I.I.; Khabibulina, L.R. (). Solubility of chalcogenide glassy semiconductors in photoinduced irreversible and reversible transitions. FZELA, no. 31, 1985, 92-96. (RZFZA, 85/9N715).
647. Solomonov, Yu.F. (FTI). Heteroexciton molecule. ZFPRA, vol. 42, no. 5, 1985, 220-222.
648. Stasyuk, I.V.; Popel', A.M. (ITeFUK; LvGU). Contribution of PO(sub4) groups to the electrooptical effect in KH(sub2)PO(sub4) type crystals. UFZHA, no. 10, 1985, pp. 1475-1479.
649. Tsvetkov, V.A.; Alekseyev, A.S.; Bonch-Osmolovskiy, M.M.; Galkina, T.I.; Zamkovets, N.V.; Sibel'din, N.N. (FIAN). Energy transfer of electron excitation of germanium in liquid helium. ZFPRA, vol. 42, no. 7, 1985, 272-275.
650. Ulitskiy, N.I.; Kharlamov, B.M.; Pyndyk., A.M.; Personov, R.I. (). Zeeman effect on narrow gaps in the range of singlet-singlet transitions of complex molecules in strong magnetic fields. OPSPA, vol. 59, no. 4, 1985, 928-930.
651. Vakarov, B.S.; Stys, L.Ye.; Foygel', M.G.; Tsybeskov, L.V. (NIIFOd). Mechanism of photodarkening in thin layers of As(sub2)Se(sub3). UFZHA, no. 10, 1985, 1555-1559.
652. Varnavskiy, O.P.; Golovlev, V.V.; Kirkin, A.N.; Mozharovskiy, A.M. (FIAN). Experimental observation of laser lethargy in the optical range. KRSFA, no. 9, 1985, pp. 24-28.
653. Vinetskiy, V.L.; Kukhtarev, N.V. (). Possibility of holographic conversions in neutron optics during nuclear transmutations. UFZHA, no. 2, 1985, 170-172. (RZFZA, 85/9N50).
654. Zaytsev, N.K.; Shaparev, N.Ya. (). Optogalvanic effect in a contracted glow discharge in a mixture of molecular gases. Nelineynaya optika i spektroskopiya molekulyarnykh sred. IFSOAN. Krasnoyarsk, 1984, 119-129. (RZFZA, 85/10L290).

655. Zelenskiy, A.N.; Kokhanovskiy, S.A.; Lobashev, V.M.; Sobolevskiy, N.M.; Vol'ferts, Ye.A. (IYaIAN). Laser polarization of accelerated protons. CVSPEIMF, 3rd, Zvenigorod, 23-27 Apr 1983. Trudy. Moskva, 1984, 30-35. (RZFZA, 85/9V473).
656. Zhitkov, P.M.; Nikitin, A.K. (UDN). Determination of optical constants in metals by surface electromagnetic waves. VINITI. Deposit, no. 4895-85, 8 Jul 1985, 6 p. (RZFZA, 85/10L301).

### 3. Laser Spectroscopy

657. Agal'tsov, A.M.; Gorelik, V.S.; Sushchinskiy, M.M.; Fayzullov, T.F.; Khashimov, R.N. (FIAN). Laser light-scattering spectroscopy of near-surface layers of crystals and thin films. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 191-195.
658. Agladze, N.I.; Bagdanskis, N.I.; Vinogradov, Ye.A.; Zhizhin, G.N.; Popova, M.N. (). High-resolution IR spectroscopy of impurity centers in crystals. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 196-205.
659. Akhianov, S.A.; Koroteyev, N.I. (). Coherent active spectroscopy of scattered light. New results in studies on nonequilibrium states and laser-induced phase transitions. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 84-88.
160. Akhmedzhanov, R.; Bulanin, M.O.; Granskiy, P.V. (). Electrooptical constants of carbon dioxide and matrix elements of the polarizability tensor. OPSPA, vol. 59, no. 4, 1985, 785-790.
161. Alimardonov, E.; Gass, A.N.; Kapusta, O.I.; Klimin, S.A. (ISAN). Giant Raman spectra of ethane adsorbed on silver. ZFPRA, v. 41, no. 8, 1985, 345-347.
162. Allakhverdiyev, K.R.; Aleshenko, U.A.; Bakhyshov, N.A.; Vodop'yanov, L.K.; Gashimzade, F.M.; Sardarly, R.M.; Shteynshrayber, V.Ya. (). Vibrational spectrum of  $TlS(x)Se(1-x)$  solid solutions. PSSBB, v. B127, no. 2, 1985, 459-464. (RZFZA, 85/10L370).
163. Antipenko, B.M.; Dumbravyanu, R.V.; Perlin, Yu.Ye.; Raba, O.B.; Sukhareva, L.K. (). Spectroscopic aspects of a  $BaYb_{2}F_{8}-Tm$  laser medium. OPSPA, vol. 59, no. 3, 1985, 626-631.

164. Apanasevich, P.A.; Kvach, V.B.; Orlovich, V.A. (). Resonance coherent anti-Stokes Raman spectrum analysis of vibrations in metalloporphyrins. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 167-171.
165. Bagayev, S.N.; Dychkov, A.S.; Semibalamut, V.M.; Titov, Ye.A.; Chebotayev, V.P. (). Intensity of sharp resonances in a low pressure gas. OPSPA, vol. 59, no. 3, 1985, 481-483.
166. Balykin, V.I.; Letokhov, V.S.; Minogin, V.G.; Sidorov, A.I. (ISAN). Laser cooling of atoms for precision spectroscopy. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 109-113.
167. Bayev, V.M.; Gamaliy, V.F.; Sviridenkov, E.A.; Suchkov, A.F. (). Intracavity laser spectroscopy and its use for studying transient and nonlinear processes. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 125-128.
168. Bayramov, B.Kh.; Lichkova, N.V.; Timofeyev, V.D.; Toporov, V.V. (). Nature of "supplementary" lines in the Raman spectra of Beta-AgI crystals. FTVTA, no. 2, 1985, 540-542. (RZFZA, 85/10L367).
169. Bekov, G.I.; Yegorov, A.S.; Kurskiy, A.N.; Radayev, V.N. (). Laser analytical photoionization spectroscopy for marine geology. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 226-230.
670. Belousov, A.V.; Kovarskiy, V.A.; Sinyavskiy, E.P.; Keloglu, O.Yu. (). Optical properties of anharmonic molecules in a low-frequency resonance radiation field. IZFMB, no. 1, 1985, 61-64. (RZFZA, 85/9L190).
671. Belyy, N.M.; Bobyr', A.V.; Gorban', I.S.; Gubanov, V.A.; Salivon, G.I. (KGU). "Forbidden" lines in the Raman spectrum of alpha-HgI(sub2) crystals. UFZHA, no. 9, 1985, 1331-1335.
672. Bobrov, A.V.; Glebov, L.S.; Kimel'fel'd, Ya.M.; Kliger, G.A.; Boldenkov, G.F.; Loktev, S.M. (INKhS). Raman spectroscopy application for the investigation of heterogeneous catalysis mechanism in situ. Acetophenone hydrogenation on iron catalyst. DANKA, v. 284, no. 5, 1985, 1158-1160.

673. Bol'shakov, A.A.; Oshemkov, S.V.; Petrov, A.A. (LGU). Method for spectrum analysis of neon content in helium. OTIZD, no. 39, 1985, 1187034.
674. Bol'shov, M.A.; Zybin, A.V.; Koloshnikov, V.G.; Smirenkina, I.I. (). Laser atomic fluorescence analysis of microscopic concentrations of impurities. Analysis of actual agricultural and industrial objects. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 231-234.
675. Borkova, V.N.; Zubov, V.A.; Krayskiy, A.V. (). Holographic spectroscopy with a transient reference wave. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 132-135.
676. Borkova, V.N.; Zubov, V.A.; Krayskiy, A.V.; Sultanov, T.T. (FIAN). Method for holographic measurement of the spectral composition of modulated optical radiation. OTIZD, no. 38, 1985, 1053575.
677. Bulanin, M.O.; Shchepkin, D.N. (). Using liquified gases as solvents in problems of molecular spectroscopy. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 152-155.
678. Bulyshev, A.Ye.; Denisov, V.I.; Preobrazhenskiy, N.G.; Suvorov, A.Ye. (). Radiation trapping in the presence of stimulated emission. OPSPA, vol. 59, no. 3, 1985, 696-699.
679. Bunkin, A.F.; Galumyan, A.S.; Mal'tsev, D.V.; Surskiy, K.O. (IOF). Remote diagnosis of the atmosphere by means of Kerr effect spectroscopy induced by Raman resonance. KVEKA, no. 10, 1985, 2182-2185.
680. Chernobrod, B.M. (). Enhancement of Raman scattering line wing due to collisions with molecules resonant to the external field. OPSPA, v. 59, no. 4, 1985, 797-801.
681. Dashuk, P.N.; Kovtun, A.V.; Lukashenko, S.V.; Martirosov, V.A. (SKBAPNTO; LPI). Method for microspectrum analysis of the chemical composition of matter. OTIZD, no. 39, 1985, 1187035.
682. Davydov, I.A. (LGU). Two-photon spectroscopy of surface photoelectromotive force in semiconductors. VINITI. Deposit, no. 5060-85, 16 Jul 1985, 8 p. (RZFZA, 85/10N461).

683. Davydov, V.Yu.; Savatinova, I.; Chisler, E.V. (). Spectroscopic evidence of short hydrogen bonds in  $\text{KH}(\text{sub}2)\text{PO}(\text{sub}4)$  and  $\text{KD}(\text{sub}2)\text{PO}(\text{sub}4)$  crystals. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 175-180.
684. Denisov, L.K.; Loshin, A.F.; Kozlov, N.A.; Nikiforov, V.G. (). Atomic fluorescence analysis of Na and Ba with excitation by a flashlamp-pumped pulsed dye laser. ZPSBA, v. 43, no. 4, 1985, 566-570.
685. Denisov, V.N.; Mavrin, B.N.; Podobedov, V.B.; Sterin, Kh.Ye. (). Hyper-Raman scattering in glasses and liquids: new interpretation of the vibrational spectra of these media. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. materialy. Moskva, 1985, 172-174.
686. Dobrzanskiy, G.F.; Markov, Yu.F.; Shabalin, V.V. (). Raman scattering in iodine-doped  $\text{Hg}(\text{sub}2)\text{Cl}(\text{sub}2)$  crystals. FTVTA, no. 3, 1985, 923-926. (RZFZA, 85/10L369).
687. Gangrskiy, Yu.P.; Markov, B.N.; Nadzhakov, E.G.; Oganesyan, Yu.Ts. (). Laser study on the structure of nuclei. CVShYaFi, 10th, Khumsan, Oct 1983. Lektsii. Part 2. Svoystva deformirovannykh yader. Tashkent, 1985, 80-88. (RZFZA, 85/10V1).
688. Gorelik, V.S.; Khashimov, R.N.; Sushchinskiy, M.M. (). Resonance Raman scattering in submicron heteroepitaxial silicon films. PFKMD, no. 6, 1985, 77-81. (RZFZA, 85/10L372).
689. Heldt, J.R. (Polard) (). Luminescence and laser properties of some anthracene derivatives (in English). Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 49-55.
690. Ivanenko, M.M.; Churakov, V.V. (). Spectral characteristics of degenerate three-level systems under double optical resonance conditions. ZPSBA, v. 42, no. 3, 1985, 412-419.
691. Ivanov, E.I.; Krylov, I.R. (). Broadening of absorption-saturation resonance in  $\text{SiF}(\text{sub}4)$  by collisions with He. OPSPA, vol. 59, no. 3, 1985, 710-711.
692. Ivanov, E.I.; Krylov, I.R.; (). Saturated-absorption spectrum of  $\text{SiF}(\text{sub}4)$  near P(28)--P(38) 9.4 m  $\text{CO}_2$  laser lines. OPSPA, vol. 59, no. 4, 1985, 911-913.

693. Ivanov, V.V.; Ayvazyan, Yu.M.; Kovalenko, S.A. (). Multichannel optical spectra analyzer based on a charge-coupled device and the Electronic-60 microcomputer. ZPSBA, vol. 43, no. 3, 1985, 516-519.
694. Kaliteyevskiy, N.I.; Kotlikov, Ye.N. (). Development of methods for ultrahigh-resolution optomagnetic fluorescence laser spectroscopy. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 129-131.
695. Kolobrodov, V.G.; Sakhno, S.P.; Tymchik, G.S. (KPIA). Study on distortions of diffractive images in coherent optical spectrum analyzers under nonequilibrium illumination of the input transparency. KPIA. Vestnik. Seriya priborostroyeniye, no. 15, 1985, 40-43. (RZFZA, 85/10L548).
696. Kolobrodov, V.G.; Tymchik, G.S. (GOI). Spectral methods of control of statistical characteristics of hatched quasi-periodic structures. OPMPA, no. 10, 1985, 4-7.
697. Korobeynichev, O.P.; Tereshchenko, A.G.; Yemel'yanov, I.D.; Rudnitskiy, A.L.; Fedorov, S.Yu.; Kuybida, L.V.; Lotov, V.V. (). Basis for a test mass-spectrometric method to investigate the structure of flames with narrow combustion zones. FGVZA, no. 5, 1985, 22-28.
698. Korobeynik, G.S.; Montanari, S.G.; Tumanova, L.M. (). Laser spectrochromatographic method for analysis of petroleum components. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 254-257.
699. Korotayev, O.N.; Donskoy, Ye.I.; Glyadkovskiy, V.I. (). Two-photon mechanism of hole burning in absorption spectra of mesosubstituted zinc-tetrabenzoporphyrin complexes. OPSPA, vol. 59, no. 3, 1985, 492-494.
700. Korsakova, Ye.G.; Verkhovskiy, Ye.B.; Klochkov, V.P. (). Spectra and polarization of fluorescence from phthalimide higher electronic states. OPSPA, v. 59, no. 3, 1985, 573-577.
701. Kotlikov, Ye.N.; Perchuk, O.V. (). Neon 1.15  $\mu\text{m}$  line collisional broadening using Hanle signals. OPSPA, vol. 59, no. 4, 1985, 923-925.

702. Kozlova, N.V.; Valyukhov, A.A.; Nazarov, V.V.; Frolov, Yu.G. (NIFKhI; MKhTI). Spectroscopic study on the interaction of molybdates with the surfaces of silicon dioxide hydrosol particles. ZNOKA, no. 10, 1985, 2549-2553.
703. Krayskiy, A.V. (FIAN). Determining the refractive index derivatives and possibility for determining the rate of change of thickness of a layer of matter by holographic spectroscopy with a transient reference wave. KRSFA, no. 10, 1985, 54-57.
704. Krivtsun, V.M.; Kuritsyn, Yu.A.; Snegirev, Ye.P.; Zaslavitskiy, I.I.; Shotov, A.P. (). Measurement of small concentrations of  $\text{PH}(\text{sub}3)$  in  $\text{GeH}(\text{sub}4)$  by a detuning diode laser spectrometer. ZPSBA, vol. 43, no. 4, 1985, 571-576.
705. Kruglik, G.S.; Skripko, G.A.; Shkadarevich, A.P.; Yermolenko, N.N.; Gorodetskaya, O.G.; Belokon', M.V.; Shagov, A.A.; Zolotareva, L.Ye. (). Amplification of light in the yellow-green spectral range by copper-activated glass. OPSPA, vol. 59, no. 4, 1985, 727-729.
706. Kruzhalov, S.V.; Parfenov, V.A.; Pakhomov, L.N.; Petrun'kin, V.Yu. (). Absorption lines coinciding with the second-harmonic frequency of a YAG-Nd laser. OPSPA, vol. 59, no. 3, 1985, 687-691.
707. Kudryashova, G.S.; Obraztsov, Yu.V.; Opekan, A.G.; Perminov, N.I. (). Study of optical properties of liquid dielectrics in ultraviolet, visible, and near infrared regions of the spectrum. ZPSBA, vol. 43, no. 4, 1985, 584-589.
708. Kuritsyn, Yu.A. (). High-resolution infrared spectroscopy with tunable semiconductor lasers. Study on transient molecular processes. Industrial spectrometer. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 119-124.
709. Kuritsyn, Yu.A.; Vedeneyeva, G.V.; Koloshnikov, V.G.; Krivtsun, V.M.; Pak, I.; Snegirev, Ye.P.; Britov, A.D.; Zaslavitskiy, I.I.; Shotov, A.P. (ISAN). Tunable diode laser spectrometer. Design and technical specifications. ISAN. Preprint, no. not given, 1985, 63 p. (RZFZA, 85/10L559).
710. Lebedev, M.V.; Lysenko, V.G. (IPTMOM; IFTT). Hyper-Raman study on nonlinear permittivity in a biexciton resonance region. FTVTA, no. 9, 1985, 2624-2630.

711. Lukashenko, V.I.; Pitatelev, G.V. (IFANUK; KIYaI). Formation of alkali molecules excited to the  $1(\text{sup}3)\text{P}_1(\text{sub } g)$  triplet state in a discharge plasma. UFZHA, no. 9, 1985, 1345-1350.
712. Mozol', M.Ye. (IPANUK). Two-quantum spectroscopy of wideband semiconductors. KVELA, no. 29, 1985, 48-59.
713. Novikov, V.P.; Novikov, M.A. (). Optoacoustic methods for recording low absorption in condensed media. IANFA, no. 4, 1985, 751-757. (RZFZA, 85/9L1028).
714. Oshemkov, S.V.; Petrov, A.A. (). Spectral analysis with laser atomization. ZPSBA, vol. 43, no. 3, 1985, 359-376.
715. Paetzold, H. (Pettsol'd, G.); Tilch, J. (Til'kh, I.); Falk, H. (Fal'k, Kh.); Pham Gia Mon (Fam Gia Mon) (all from GDR). (). Using laser atomic fluorescence to determine trace elements in photofilms. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 221-225.
716. Papousek, D. (Czechoslovakia) (). Coherent anti-Stokes Raman spectroscopy, difference-frequency laser and Fourier transform spectroscopy of simple polyatomic molecules (in English). Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 61-83.
717. Pevtsov, A.B.; Sel'kin, A.V.; Syrbu, N.N.; Umanets, A.G. (FTI). Intraband and interband relaxation of exciton polaritons. ZETFA, v. 89, no. 4, 1985, 1155-1168.
718. Plinski, E.F.; Abramski, K.M. (). Saturation of infrared absorption in sulfur hexafluoride near 10.5  $\mu\text{m}$  at the P12, P14, P16, P18 and P20 CO<sub>2</sub> laser emission lines (in English). OPAPB, no. 3, 1984, 301-306. (RZFZA, 85/10L1008).
719. Plinski, E.F.; Sobolewski, A.; Nowicki, R. (). Spectroscopic measurements of  $\text{Ch}(\text{sub}3)\text{OH}$  pumped by a c-w CO<sub>2</sub> laser (in English). OPAPB, no. 4, 1984, 533-538. (RZRAB, 85/10Ye520).
720. Pologrudov, V.V.; Karnaukhov, Ye.N.; Martynovich, Ye.F.; Smirnova, S.A.; Davydchenko, A.G. (). Mechanism of cerium-activated YAG luminescence. OPSPA, vol. 59, no. 3, 1985, 677-680.



721. Prikhot'ko, A.F. (). Spectroscopy of cryocrystals. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 140-144.
722. Prikhot'ko, A.F.; Pikus, Yu.G.; Shanskiy, L.I.; Danilov, D.G. (IFANUK). Low-frequency Raman spectra of beta and alpha oxygen single crystals. ZFPRA, vol. 42, no. 5, 1985, 203-205.
723. Radchenko, Ye.D.; Mikhaylov, V.I.; Irisova, K.N.; Chukin, G.D.; Samgina, T.Yu.; Nefedov, B.K. (VNIINP). Effect of mechanical activation on the interaction of nickel and molybdenum oxides. IVNMA, no. 10, 1985, 1715-1719.
724. Rebane, K.K.; Rebane, L.A. (). Resonance Raman scattering as a method for studying vibronic interactions. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 163-166.
725. Rentsch, S. (Rench, S.); Wilgelmi, B. (Vil'gel'mi, B.) (GDR). (). Study on excited molecules by picosecond time-resolved absorption and fluorescence (in Russian). Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 95-99.
726. Rubinov, A.N.; Tomin, V.I. (). Inhomogeneous configurational broadening of the spectra of complex molecules in the condensed phase. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 156-158.
727. Rukman, G.I.; Shelemin, Ye.B. (). Quasi-diametrical Doppler effect in measurement technology. IZTEA, no. 9, 1985, 46-47.
728. Shtern, E.K.; Koryukin, B.M.; Ufimtseva, R.N.; Koptayayev, A.F.; Semidalov, S.Yu. (SGI). Study on the content of impurity elements in sulfides by laser microspectrum analysis. IVUOA, no. 9, 1985, 11-14.
729. Sidorov, N.V.; Krasnyukov, Yu.N.; Mukhtarov, E.I. (). Raman spectrum study on phase transitions in thiophene crystals. ZPSBA, vol. 43, no. 4, 1985, 684-687.
730. Tibilov, S.S.; Timokhin, A.A. (GOI). Effect of polarization on the sensitivity for recording induced absorption spectra. OPMPA, no. 4, 1985, 55.

731. Tikhomirov, S.A.; Tolstorozhev, G.B. (). Intramolecular vibrational relaxation in free molecules of perylene and POPOP. *Lazery i opticheskaya nelineynost'*. IFANB. Minsk, 1984, 103-109. (RZFZA, 85/9L280).
732. Tomm, J.W.; Herrmann, K.; Yunovich, A.E.; Solotov, S.I. (). Photoluminescence spectra of  $Pb(1-x)Sn(x)Te$  epitaxial layers and heterostructures up to room temperature. *PSSAB*, v. A88, no. 1, 1985, 277-281. (RZFZA, 85/10N498).
733. Varga, P.; Vertosi, G. (Vertoshi, G.); Gyulai, I. (Dyulai, I.); Kiss, G. (Kish, G.); Kroo, N.; Szentirmay, Sz. (Sentirmay, Zh.); Soboleva, Ye.M.; Sobolev, A.G.; Sagitov, S.I.; Uskov, A.V. (FIAN). Luminescence spectra of metal-barrier-metal structures. *KVEKA*, no. 10, 1985, 2161-2162.
734. Vasilenko, L.S.; Matveyenko, I.D.; Rubtsova, N.N. (). Using coherent radiation in fields spaced in time for high-resolution spectroscopy. *Aktual'nyye problemy spektroskopii*. CSUSSNPS, Moskva, 18-22 Jun 1984. *Materialy*. Moskva, 1985, 114-118.
735. Vishchakas, Yu.; Kabelka, V.; Milyauskas, A. (). Elektronika NTs-80 system for controlling and recording a laser spectrometer. *CMSPMFE*, 3rd, 8 Jun 1984. *Trudy*. Vil'nyus, 1984, 4-8. (RZFZA, 85/10A258).
736. Vlckova, B.; Strauch, B.; Horak, M. (). Measurement and interpretation of infrared and Raman spectra of bis(2,4-pentandionate) complexes of Cu(II) and Pd(II). *CCCCA*, no. 2, 1985, 306-316. (RZFZA, 85/10L229).
737. Witko, W. (). Raman spectroscopy studies of reorientations in isotropic phase of alkoxyazoxybenzenes (in English). *Rap. Inst. fiz. jadr. Krakow*, no. 1220/PS, 1983, 18 p. (RZFZA, 85/10L375).
738. Yershov-Pavlov, Ye.A.; Chvyaleva, L.V.; Chubrik, N.I. (). Allowing for spectral line wings when measuring their intensity. *ZPSBA*, vol. 43, no. 3, 1985, 382-389.
739. Zasavitskiy, I.I.; Kosichkin, Yu.V.; Nadezhdinskiy, A.I.; Stepanov, Ye.V.; Tishchenko, A.Yu.; Khattatov, V.U.; Shotov, A.P. (IOF). Determination of the freon-12 concentration in air by a diode laser spectroscopy method. *ZAKHA*, no. 10, 1985, 1903-1906.

740. Zaytseva, L.A.; Borodin, I.P.; Mikheyenkova, R.R.; Yelokhina, G.N. (TsNIIMTMash). Study on dendritic chemical inhomogeneity by means of the LMA-10 laser microspectrum analyzer. ZVDLA, no. 9, 1985, 26-27.
741. Zhiglinskiy, A.G.; Kuznetsov, I.V.; Martynov, I.Yu.; Pavlov, S.V.; Ryazanov, N.S. (LGU). Study on intracavity dual-beam interference of light in a dye laser. VINITI. Deposit, no. 5057-85, 16 Jul 1985, 9 p. (RZFZA, 85/10L1142).
742. Zhizhin, G.N.; Moskaleva, M.A.; Yakovlev, V.A. (). Vibrational spectroscopy of molecular systems on the surface of metals and dielectrics by means of surface electromagnetic waves. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 186-190.
743. Zuyev, V.Ye.; Kochanov, V.P.; Lopasov, V.P.; Luk'yanenko, S.F. (). Intracavity spectroscopy of molecules in alternating-current electric fields. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 136-139.
744. Zuyev, V.Ye.; Makushkin, Yu.S.; Ponomarev, Yu.N. (IOA). Research and development of high-resolution molecular spectroscopy at the Institute of Atmospheric Optics, Siberian Branch Academy of Sciences USSR. Aktual'nyye problemy spektroskopii. CSUSSNPS, Moskva, 18-22 Jun 1984. Materialy. Moskva, 1985, 100-103.

J. BEAM-TARGET INTERACTION

1. Miscellaneous Targets

745. Azarov, V.V.; Bogdanova, T.I.; Demochko, Yu.A. (). Cumulative effect of laser damage to water-soluble crystals. IANFA, no. 4, 1985, 791-794. (RZFZA, 85/10L1091).
746. Bazakutsa, P.V.; Maslennikov, V.L.; Prokhorov, A.M.; Sychugov, V.A. (). Possibility of using periodic surface microrelief to determine the optical constants of matter under laser irradiation. PFKMD, no. 6, 1985, 82-85. (RZFZA, 85/10Ye1048).
747. Biushvili, L.L.; Topchyan, I.I. (). Effect of heating from slot vibrations under laser radiation, on damage to crystals. FTVTA, no. 4, 1985, 1082-1087. (RZFZA, 85/10Ye1043).

748. Dan'shchikov, Ye.V.; Dymshakov, V.A.; Lebedev, F.V.; Pis'mennyy, V.D.; Ryazanov, A.V. (). Surface plasma in a c-w CO<sub>2</sub> laser beam. IANFA, no. 4, 1985, 811-828. (RZRAB, 85/9Ye744).
749. Gladush, G.G.; Yavokhin, A.N. (IAE). Nonequilibrium mechanism of optical breakdown of inert gases in the vicinity of a refractory target. KVEKA, no. 10, 1985, 2130-2132.
750. Glebov, L.B.; Yefimov, O.M.; Nikonorov, N.V.; Petrovskiy, G.T. (). Optical breakdown of a K8 glass surface modified by low-temperature ion exchange. KVEKA, no. 10, 1985, 2144-2146.
751. Golovashkin, A.I.; D'yachkov, P.I.; Zhurkin, B.G.; Karuzskiy, A.L.; Krasnosvobodtsev, S.I.; Fradkov, A.B. (FIAN). Device for laser pulsed sputtering of refractory materials. FIAN. Preprint, no. 278, 1985, 15 p.
752. Hnatowicz, V.; Kvitek, J.; Dzmuran, R.; Odzajev, V.; Rybka, V.; Onheiser, P.; Jelinkova, H. (). Channeling measurement of residual damage in silicon. CZYPA, v. B35, no. 4, 1985, 465-468. (RZFZA, 85/10Ye999).
753. Igoshin, V.I.; Pichugin, S.Yu. (FIANKuy). Efficiency of laser heating of particles dispersed in gas flow. KVEKA, no. 10, 1985, 2187-2189.
754. Il'in, A.I.; Kraposhin, V.S. (). Glassy structures in metal alloys subjected to high-energy beams. PFKMD, no. 6, 1985, 5-16. (RZFZA, 85/10Ye1057).
755. Kalugina, T.I.; Krutyakova, V.P.; Smirnov, V.N. (GOI). Absorbent discontinuities in barium fluoride. OPMPA, no. 10, 1985, 34-35.
756. Krutyakova, V.P.; Raykhman, B.A.; Smirnov, V.N. (). Method for measuring thresholds of internal optical breakdown of transparent materials. OTIZD, no. 39, 1985, 1187023.
757. Malisko, L.; Hevesi, I.; Nanai, L. (). Scanning electron microscope study on laser induced damage to V(sub2)O(sub5) single crystals. PSSAB, v. A88, no. 2, 1985, K119-K121. (RZFZA, 85/10Ye1045).
758. Mayorov, V.S.; Safonov, A.N.; Fromm, V.A. (). Technological requirements in materials processing by c-w CO<sub>2</sub> laser radiation. EOBMA, no. 5, 1985, 10-14.

759. Parfenov, V.G.; Savintseva, L.A.; Sharkov, A.V. (LITMO). Temperature field of an active element under a pulsed illuminator. IVUBA, no. 10, 1985, 91-94.
760. Pogrebnyak, A.D.; Rakitin, S.V. (). Generation of radiowave electromagnetic radiation in solids under the action of laser radiation. IANFA, no. 4, 1985, 773-775. (RZFZA, 85/9L1085).
761. Solomko, A.A.; Gayday, Yu.A.; Dovzhenko, A.V.; Karpenko, A.N. (). Interaction of laser radiation with surface magnetostatic waves in ferrite-garnet films. OPSPA, vol. 59, no. 3, 1985, 632-636.
762. Suminov, I.V. (). Laser-electric method for obtaining metal-coated holes in printed boards. PRSUB, no. 9, 1985, 34-36.
763. Tagantsev, D.K.; Nemilov, S.V. (GOI). The effect of light of variable intensity and of different spectral composition on the viscosity of vitreous orpiment. FKSTD, no. 5, 1985, 556-564.
764. Tuchkova, Ye.A. (). Possibility of improving the accuracy of dimensional laser processing. EOBMA, no. 5, 1985, 5-7.
765. Vasenkov, A.A.; Kulipanov, G.N.; Litvinov, Yu.M.; Mazurenko, S.N.; Moiseyenko, N.G.; Panchenko, V.Ye. (). Section X-ray topography in synchrotron radiation. PZTFD, no. 19, 1985, 1196-1200.
766. Vassilev, Ya. (). Surface damage to transparent materials by oblique incident high-power laser pulses. Part 2. Surface damage threshold ratio. Bolgarskiy fizicheskiy zhurnal, no. 6, 1984, 647-654. (RZFZA, 85/9L993).
767. Wiesner, P.; Tuan Anh M. (). Method for surface processing of parts. Patent GDR, no. 217738, 23 Jan 1985. (RZRAB, 85/9Ye645).
768. Zemskov, K.I.; Isayev, A.A.; Kazaryan, M.A.; Petrash, G.G. (FIAN). Device for processing objects by laser radiation. OTIZD, no. 39, 1985, 467698.

## 2. Metal Targets

769. Ageyev, V.P.; Gorbunov, A.A.; Konov, V.I.; Prokhorov, A.M. (). Interaction of intense UV laser radiation with the surface of solids. IANFA, no. 4, 1985, 732-737. (RZFZA, 85/10L1094).

770. Alimov, D.T.; Bunkin, F.V.; Zhuravskiy, V.L.; Kosov, V.M.; Luk'yanchuk, B.S.; Tyugay, V.K.; Khabibullayev, P.K. (IYaFANUZ; IOF). Laser control of the kinetics of heterogeneous metal oxidation. DANKA, vol. 284, no. 4, 1985, 838-840.
771. Bagno, A.N.; Barybin, D.F.; Talala, N.S. (). Development of laser cutting of sheet metal. SUDOА, no. 10, 1985, 32-35
772. Belov, N.; Bertolotti, M.; Verona, Ye.; Palma, A.; Sette, D.; Ferrari, F.; Yas'kov, A. (all but Belov and Yas'kov from Italy). Effect of annealing on the optical geometrical parameters of zinc oxide thin films. FKOMA, no. 5, 1985, 115-118.
773. Blokha, V.B.; Ageyev, L.A.; Miloslavskiy, V.K. (KhGU). Properties of periodic structures induced in AgCl-Ag thin films under the oblique incidence of polarized laser radiation. ZTEFA, no. 10, 1985, 1967-1972.
774. Bonch-Bruyevich, A.M.; Imas, Ya.A.; Libenson, M.N.; Shandybina, G.D. (). Interferometric method to observe thermomechanical effects under the action of intense radiation on a metal surface. PFKMD, no. 5, 1985, 102-105. (RZFZA, 85/9L540).
775. Bonch-Bruyevich, A.M.; Libenson, M.N.; Makin, V.S.; Pudkov, S.D.; Trubayev, V.V. (). Scattering of middle region infrared surface electromagnetic waves on optically smooth metallic surfaces. PZTFD, no. 17, 1985, 1039-1043.
776. Brativnik, Ye.V.; Velikikh, V.S.; Zverev, A.F.; Romanenko, A.V.; Goncharenko, V.P. (). Structure and properties of Kh12M steel after laser hardening from a liquid state. VNIITEMR. Deposit, no. 115MSh-85, 17 May 1985, 8 p. (MTOMA, no. 10, 1985, 39).
777. Burakov, V.A.; Varavka, V.N.; Burakova, N.M. (). Structural characteristics of steel hardening under conditions of rapid laser quenching. IVUSA, no. 10, 1985, 113-118.
778. Buzykin, O.G.; Burmistrov, A.V.; Kogan, M.N.; Konov, V.I.; Prokhorov, A.M.; Ral'chenko, V.G. (). Extremely high reflectivity of zirconium heated in air under the action of c-w CO2 laser radiation. IANFA, no. 4, 1985, 779-782. (RZRAB, 85/10Ye574).

779. Goncharov, V.K.; Karaban', V.I.; Kolesnik, A.V. (). Spatial-temporal optical characteristics of erosion plasma flares. ZPSBA, vol. 43, no. 3, 1985, 389-395.
780. Gruber, H.; Tosch, R.; Fritzsche, K.; Sobek, W. (). Method for fabricating surface printing plates by laser radiation. Patent GDR, no. 217645, 16 Jan 1985. (RZRAB, 85/9Ye640).
781. Ivanov, L.I.; Kazilin, Ye.Ye.; Platov, Yu.M.; Simakov, S.V.; Yanushkevich, V.A. (). Pore formation in aluminum under laser action. FKOMA, no. 5, 1985, 25-27.
782. Mazhukin, V.I.; Pestryakova, G.A. (). Numerical analysis of the effect of a laser erosion plasma on the process of surface vaporization. IANFA, no. 4, 1985, 783-790. (RZRAB, 85/10Ye549).
783. Shamarin, Yu.Ye.; Korneyev, K.K. (). Laser soldering of integrated microcircuits on printed circuit boards. SUDOА, no. 10, 1985, 27-28.
784. Uglov, A.A. (IMET). First All Union Conference on Laser Metallurgy and Laser Plasma Processing at the Institute of Metallurgy (IMET), Academy of Sciences USSR, Moscow, 20-22 Nov 1984. FKOMA, no. 5, 1985, 143.
785. Ursu, I.; Apostol, D.; Apostol, I.; Dinescu, M.; Mihailescu, I.N.; Stoica, M.; Harsany, A. (). Shock waves induced in the ambient air by a breakdown plasma generated and sustained in front of a metal target as an effect of high-power microsecond TEA CO<sub>2</sub> laser irradiation (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 140-141. (RZRAB, 85/10Ye555).
786. Ursu, I.; Mihailescu, I.N.; Nanu, L.; Nistor, L.C.; Teodorescu, V.S.; Prokhorov, A.M.; Konov, V.I.; Chapliyev, N.I. (). Copper oxidation under the action of 10.6  $\mu\text{m}$  c-w laser radiation (in English). Symposium Optika '84, Budapest, 24-27 Apr 1984. Abstracts, Budapest, 1984, 139. (RZRAB, 85/10Ye546).
787. Vasil'yev, Ye.N.; Kirkov, V.I.; Pak, N.I.; Popov, Ye.G. (ITPM). Numerical modeling of the action of explosive plasma on metal. ITPM. Preprint, no. 3, 1985, 17 p. (RZFZA, 85/10Ye1058).

### 3. Dielectric Targets

788. Abazekhov, M.M.; Taova, T.M.; Temrokov, A.I. (). Mechanism of radiation bursts in dielectrics under subthreshold laser irradiation. Fizika mezhfaznykh yavleniy. KabbalkGU. Nal'chik, 1984, 163-165. (RZFZA, 85/9Ye1167).
789. Abdupatayev, R.; Bedilov, M.R.; Beysembayeva, Kh.B. (IYaFANUz). Mass-spectrum studies on the interaction of laser radiation with tinted transparent dielectrics. IYaFANUz. Preprint, no. R-6-156, 1985, 9 p. (RZFZA, 85/9Ye1173).
790. Danileyko, Yu.K.; Minayev, Yu.P.; Sidorin, A.V. (IOF). Segregation of vacancy-impurity defects in sapphire. KRISA, no. 5, 1985, 950-953.
791. Gavrilov, V.V.; Chernov, S.A.; Etsin, S.S. (IFANLa). Realization of a dissociative mechanism in radiative defect-formation processes in alkali-halide crystals. FTVTA, no. 9, 1985, 2813-2815.
792. Glebov, L.B.; Yefimov, O.M.; Petrovskiy, G.T.; Rogovtsev, P.N. (). Laser radiation scattering under optical breakdown of transparent dielectrics and gases. KVEKA, no. 10, 1985, 2077-2081.
793. Solodukha, A.M.; Zhukov, O.K.; Krylov, M.S. (). Anomaly of dielectric characteristics in tungsten trioxide thin films. Segnetoelektriki i p'yezoelektriki. KalinGU. Kalinin, 1985, 127-130. (RZFZA, 85/10N744).
794. Vinogradov, B.A.; Kopylov, V.B.; Syrkina, M.L.; Shmagin, Yu.I. (). Thermal destruction of polyimide films under laser action and heat treatment. ZPKHA, no. 10, 1985, 2322-2326.
795. Zhurkov, S.N.; Petrov, V.A.; Chmel', A.Ye. (). Intrinsic mechanism of laser damage to transparent solid dielectrics. IANFA, no. 4, 1985, 745-750. (RZRAB, 85/10Ye575).

### 4. Semiconductor Targets

796. Andreyev, V.M.; Allakhverdiyev, A.M.; Rumyantsev, V.D.; Fedorova, O.M.; Shamukhamedov, Sh.Sh. (FTI). Low rate of surface recombination [ $S=10(\text{sup}4)$  cm/s] in epitaxial n-type GaAs. FTTPA, no. 10, 1985, 1826-1829.



797. Aslanov, G.A.; Burbayev, T.M.; Kurbatov, V.A.; Penin, N.A. (FIAN). Kinetics of photoconduction of zinc-doped germanium during short times of photoresponse. FTPPA, no. 10, 1985, 1736-1740.
798. Baskin, B.L.; Polyakov, A.A.; Trukhin, V.N.; Yaroshetskiy, I.D. (FTI). Effect of pulsed laser radiation of picosecond duration on a surface of germanium. PZTFD, no. 20, 1985, 1251-1257.
799. Bolotin, O.A.; Zaytsev, A.S.; Portnoy, G.Ya. (). Laser device for the processing of semiconductor devices. PRTEA, no. 5, 1985, 235.
800. Brayarskaya, V.I.; Nedel'ko, S.G.; Odarich, V.A.; Khimenko, M.V. (KGU). Ellipsometric studies on the effect of ion implantation and laser annealing on the optical constants of silicon. UFZHA, no. 9, 1985, 1397-1401.
801. Budzulyak, I.M.; Danilevich, O.I.; Zbykovskaya, N.I.; Omanchukovskaya, I.V.; Panchuk, O.E. (). Redistribution of impurities in binary semiconductors under the action of laser radiation. IANFA, no. 4, 1985, 765-768. (RZFZA, 85/9L997).
802. Gafiychuk, V.V.; Gashpar, V.Ye. (IPPM). Quasi-periodic temperature fields in semiconductors during laser treatment. DUKAB, no. 9, 1985, 73-76.
803. Gafiychuk, V.V.; Kiyak, S.G.; Savitskiy, G.V.; Plyatsko, G.V.; Gonov, S.Zh. (). Dynamics of heating, melting and recrystallization of semiconductors by millisecond laser pulses. IANFA, no. 4, 1985, 769-772. (RZFZA, 85/9L995).
804. Georgobiani, A.N.; Ratseyev, S.A.; Tiginyanu, I.M.; Teelevan, V.Ye.; Ursaki, V.V. (). Effect of annealing and irradiation by gamma-ray quanta on the optical properties of CdIn(sub2)S(sub4). KRSFA, no. 10, 1985, 41-43.
805. Gonov, S.Zh. (). Structural imperfections in semiconductor layers occurring under the action of laser radiation. Fizika mezhfaznykh yavleniy. KabbalkGU. Nal'chik, 1984, 151-156. (RZFZA, 85/9Yell178).
806. Kadyrakunov, K.B.; Katsaurov, L.N.; Krasnopevtsev, V.V.; Nidayev, Ye.V.; Nurgaliyev, K.; Smirnov, L.S. (FIAN). Redistribution of lithium ions implanted in silicon under the action of nanosecond pulses of laser radiation. KRSFA, no. 10, 1985, 37-40.

807. Kapayev, V.V. (). Formation of periodic structures on the surface of semiconductors under oblique incidence of laser radiation. MKETA, no. 3, 1985, 222-229. (RZFZA, 85/9Yell66).
808. Korsunskaya, N.Ye.; Moin, M.D. (IPANUK). Processes of defect formation in cadmium sulfide under the action of laser radiation. KVELA, no. 29, 1985, 83-93.
809. Kulakov, M.P.; Ryazanova, N.D.; Fadeyev, A.V.; Khasanov, I.Sh; Ivanenko, S.G. (IFTT). Absorption coefficient in zinc selenide grown from a melt. IVNMA, no. 9, 1985, 1462-1467.
810. Verner, V.D.; Gusakov, G.M.; Sarkisyan, S.S.; Em, A.S. (). Analysis of the dynamics of the process of laser annealing of semiconductors by controllably shaped pulses. PFKMD, no. 5, 1985, 91-95. (RZFZA, 85/9Yell65).
- K. PLASMA GENERATION AND DIAGNOSTICS
811. Afanas'yev, Yu.V.; Ibrayev, R.A.; Kanavin, A.P.; Chetverushkin, B.N. (IPM). Numerical modeling of the generation of current and magnetic fields in a laser flare plasma. IPM. Preprint, no. 22, 1985, 21 p. (RZFZA, 85/9G782).
812. Akhsakhalyan, A.D.; Gaponov, S.V.; Luchin, V.I. (). Dynamics in the formation of an erosion laser plasma and ion energy spectrum. Polucheniye i analiz chistykh veshchestv. Gor'kiy, 1984, 21-25. (RZFZA, 85/9L985).
813. Akhsakhalyan, A.D.; Gaponov, S.V.; Luchin, V.I. (). Instability of a vaporization front under conditions of intense absorption of a laser plasma. IANFA, no. 4, 1985, 776-778. (RZRAB, 85/9Ye746).
814. Apollonov, V.V.; Konov, V.I.; Nikitin, P.I.; Prokhorov, A.M.; Silenko, A.S.; Sorochenko, V.P.; Firsov, K.N. (IOF). Plasma formation under the influence of a series of CO2 laser nanosecond pulses. PZTFD, no. 17, 1985, 1034-1039.
815. Apolonskiy, A.A.; Babin, S.A.; Timofeyev, T.T. (). Quenching constants for some Ar II and Ar III levels in ion-laser plasma. OPSPA, vol. 59, no. 3, 1985, 714-716.

NO-A191 370

BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS NUMBER 79  
SEPTEMBER - OCTOBER 1985(U) DEFENSE INTELLIGENCE AGENCY  
WASHINGTON DC DIRECTORATE FOR SCI.. JAN 87

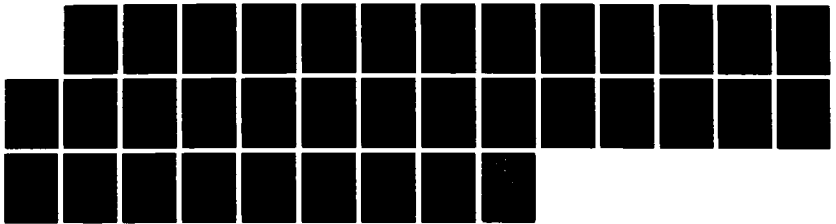
2/2

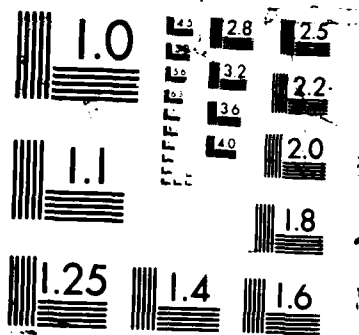
UNCLASSIFIED

DIA-DST-27002-002-07

F/G 9/3

ML





816. Ardelyan, N.V.; Kovalev, A.S.; Popov, A.M.; Rakhimov, A.T.; Feoktistov, V.A. (NIIYaF). Theoretical study of Z-pinch in a dense gas. FIPLD, no. 10, 1985, 1167-1174.
817. Bakos, J.S.; Foldes, I.B.; Ignacz, P.N.; Sorlei, Zs. (). Scattering and pulse narrowing in a laser spark (in English). APHUE, no. 1-4, 1984, 311-319. (RZFZA, 85/9L981).
818. Basov, N.G.; Gamaliy, Ye.G.; Gus'kov, S.Yu.; Demchenko, N.N.; Myshetskaya, Ye.Ye.; Lebo, I.G.; Rozanov, V.B.; Samarskiy, A.A.; Sergoyan, G.M.; Shumskiy, S.A.; Tishkin, V.P.; Favorskiy, A.P.; Fedyanin, A.O. (FIAN; IPM). Theoretical research of two-dimensional effects under laser target compression (in English). FIAN. Preprint, no. 315, 1985, 27 p.
819. Basov, N.G.; Rozanov, V.B. (FIAN). High-power neutrino source. ZFPRA, v. 42, no. 8, 1985, 350-352.
820. Bedilov, M.R.; Bykovskiy, Yu.A.; Kuramatov, D.; Kholbayev, A.; Khaytbayev, K. (IYaFANUz). Study on the process of dispersion of silver ions in the composition of a multicomponent plasma. IYaFANUz. Preprint, no. R-6-163, 1985, 12 p. (RZFZA, 85/10G182).
821. Belousov, V.I.; Murav'yev, V.V.; Lezhnin, V.P.; Zamulyukin, A.T.; Shpak, L.P. (). Ion discrimination according to mass in a stimulated magnetic field during their transmission in mass spectroscopy with dual focusing. ZTEFA, no. 10, 1985, 1983-1986.
822. Bulanin, V.V.; Karfidov, D.M.; Kupriyanova, Ye.B.; Petrov, A.V.; Sergeychev, K.F.; Chekmarev, A.M. (FIAN). Scattering of CO<sub>2</sub> laser radiation with oscillations, excited in a plasma with modulated flux of ions. ZTEFA, no. 9, 1985, 1748-1754.
823. Bykov, V.N.; Pergament, A.Kh. (IPMekh). Calculations of the population of excited levels in multicharged Al ions in laser plasma. KVEKA, no. 10, 1985, 2140-2142.
824. Bystritskiy, V.M.; Didenko, A.N.; Krasik, Ya.Ye.; Matviyenko, V.M. (NIIYaFT). Generation of intense ribbon-like ion beams in a diode with self-insulation. FIPLD, no. 9, 1985, 1057-1061.
825. Cojocar, E. (). Strange shape of an ion collection signal from a laser plasma at a ferromagnetic target (in English). RRPQA, no. 10, 1984, 895-897. (RZFZA, 85/9L984).

826. Cojocaru, E. (). Recombination radiation in x-ray diagnostics of laser-produced high-Z plasmas (in English). RRPQA, 2, 1985, 131-135. (RZFZA, 85/10G189).
827. Dan'shchikov, Ye.V.; Dymshakov, V.A.; Lebedev, F.V.; Ryazanov, A.V. (IAE). Conditions for formation of various states of surface plasma upon quasi-steady-state exposure to CO<sub>2</sub> laser radiation. KVEKA, no. 9, 1985, 1863-1872.
828. Dan'shchikov, Ye.V.; Dymshakov, V.A.; Lebedev, F.V.; Ryazanov, A.V. (IAE). Laser radiation transmission through an optical discharge plasma and a channel model of the discharge. KVEKA, no. 9, 1985, 1846-1855.
829. Datskevich, N.P.; Karlov, N.V.; Kononov, N.N.; Kuz'min, G.P. (IOF). Holographic interferometry of the gas-dynamic collapse of CO<sub>2</sub> laser plasma in the vicinity of a target. KVEKA, no. 10, 1985, 2029-2035.
830. Denus, S.; Kalbarczyk, A.; Pokora, L.; Ujda, Z. (). Study on the effect of CO<sub>2</sub> laser radiation on a plasma generated in a plasma-focus device. BWATA, no. 3, 1985, 63-76. (RZRAB, 85/10Ye573).
831. Dinev, D. (). New ideas in the physics of accelerators (in Bulgarian). FMBMA, no. 4, 1984, 325-333. (RZFZA, 85/9V407).
832. Gudkov, A.N.; Kashparov, V.A.; Kolobashkin, V.M.; Kotlyarov, A.A. (MIFI). Method and device for selecting samples [of nuclear fuel]. OTIZD, no. 36, 1985, 1149742.
833. Khodatayev, K.V.; Ginzburg, S.L.; D'yachenko, V.F. (IPM; MRI). Numerical study of relativistic electron beam pulse propagation in a plasma with Ohmic conductivity. FIPLD, no. 9, 1985, 1062-1070.
834. Kondrashov, V.N.; Rodionov, N.B.; Sitnikov, S.F.; Sokolov, V.I. (IAE). Study on gasdynamic effects on late stages of a laser spark. IAE. Preprint, no. 4154/7, 1985, 13 p. (RZFZA, 85/10G556).
835. Koresheva, Ye.R. (FIAN). Study on the stability of polymer microspheres in relation to the action of internal pressure. KRSFA, no. 5, 1985, 32-35. (RZFZA, 85/10G176).

836. Latyshev, S.V.; Rudskoy, I.V. (ITEF). Effect of recombination warming-up on the charge composition of expanding laser plasma. FIPLD, no. 10, 1985, 1175-1192.
837. Latyshev, S.V.; Rudskoy, I.V. (ITEF). Various problems in the interpretation of results of time-of-flight mass-spectroscopy of a laser plasma. ITEF. Preprint, no. 33, 1985, 15 p. (RZFZA, 85/10G185).
838. Malama, Yu.G.; Marchenko, V.S. (IKI). Radiative losses of high-temperature plasma of arbitrary optical density. FIPLD, no. 10, 1985, 1181-1192.
839. Malkov, A.N.; Prokhorov, A.M.; Fedorov, V.B.; Fomenkov, I.V. (IOF). Detection of short reflection pulses during microsecond maintenance of a laser plasma by the radiation of a pre-breakdown intensity Nd-laser. KRSFA, no. 9, 1985, 37-39.
840. Melekhin, G.V.; Moskvicheva, I.Yu; Stepanov, V.A.; Chirkin, M.V. (). Stochastic autooscillations in He-Ne laser glow discharge plasma. RAELA, no. 9, 1985, 1776-1779.
841. Petukh, M.L.; Yankovskiy, A.A. (). Analytical possibilities of laser plasma. ZPSBA, vol. 43, no. 4, 1985, 544-550.
842. Pleshakova, R.P.; Shikanov, A.Ye. (). Providing a vacuum in midget accelerator tubes with a laser ion source. Teoreticheskiye i eksperimental'nyye issledovaniya uskoriteley zaryazhennykh chastits. MIFI. Moskva, 1985, 47-50. (RZFZA, 85/9V425).
843. Rozanov, V.B.; Demchenko, N.N. (FIAN). Symmetry of spherical laser target exposure taking into account the absorption and refraction of radiation in the corona. KVEKA, no. 9, 1985, 1895-1907.
844. Shapiro, D.A. (IAESON). Low pressure arc in a lateral gas flow. ZETFA, no. 10, 1985, 1913-1919.
845. Vlasov, N.G.; Korchazhkin, S.B.; Matsonashvili, R.B.; Petryakov, V.M.; Sobolev, S.S.; Chalkin, S.F. (). Picosecond interferometry of a laser plasma. OPSPA, vol. 59, no. 4, 1985, 934-937.
846. Yershov, B.V.; Kravtsov, S.B.; Prokhorov, A.M.; Spiridonov, V.A.; Fedorov, V.B. (IOF). Secondary breakdown at the boundaries of a laser plasma in air under the action of a microsecond pulse. KRSFA, no. 10, 1985, 62-65.

### III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS

847. Aleshkevich, V.A.; Kiselev, D.F.; Korchazhkin, V.V. (auths); Levshin, L.V. (ed). (MGU). Lasers in classroom experiments. Lazery v lektsionnom eksperimente. MGU. Moskva, 1985, 135 p.
848. Bespalov, V.I.; Pasmanik, G.A. (auths); Gaponov-Grekhov, A.V. (ed). (). Nonlinear optics and adaptive laser systems. Nelineynaya optika i adaptivnyye lazernyye sistemy. IPF. Moskva, Nauka, 1985, 134 p.
849. Denisyuk, Yu.N. (ed). (). Optical holography. Practical applications. Opticheskaya golografiya. Prakticheskiye primeneniya. NSPGAN. Leningrad, Nauka, 1985, 127 p.
850. Gurevich, S.B. (ed). (). Application of optical image processing methods. Primeneniye metodov opticheskoy obrabotki izobrazheniy. FTI. Leningrad, 1985, 160 p.
851. Ikramov, G.I.; Petrovskiy, G.T. (). Radiation-optical effects in oxygen-containing crystals and glasses. Radiatsionno-opticheskiye efekty v kislorodsoderzhashchikh kristallakh i steklakh. Tashkent, Fan, 1985, 173 p. (RZFZA, 85/9L300).
852. Kazaryan, R.A.; Oganesyanyan, A.V.; Pogosyan, K.P.; Milyutin, Ye.R.; Rylov, G.Ye.; Gasparyan, S.S.; Yaremenko, Yu.I. (). Optical systems for transmitting information over atmospheric channels. Opticheskiye sistemy peredachi informatsii po atmosfernomu kanalu. IFI. Moskva, Radio i svyaz', 1985, 208 p.
853. Khokonov, Kh.B. (ed). (). Physics of interphase phenomena. Fizika mezhfaznykh yavleniy. KabbalkGU. Nal'chik, 1984, 187 p. (RZFZA, 85/9Yel0).
854. Klochkov, V.P.; Kozlov, L.F.; Potykevich, Ts.V.; Soskin, M.S. (). Laser anemometry, remote spectroscopy and interferometry. Lazernaya anemometriya, distantsionnaya spektroskopiya i interferometriya. IGM. Kiyev, Naukova dumka, 1985, 760 p.
855. Kopvillem, U.Kh.; Prants, S.V. (). Polarization echo. Polyarizatsionnoye ekho. Moskva, Nauka, 1985, 192 p. (RZFZA, 85/9A60).



856. Koronkevich, V.P.; Khanov, V.A. (auths); Rautian, S.G. (ed). (). Modern laser interferometers. Sovremennyye lazernyye interferometry. IAESON. Novosibirsk, 1985, 182 p.
857. Kozachok, A.G. (ed). (). Systems for automation of optical information processing. Sistemy avtomatizatsii obrabotki opticheskoy informatsii. NETI. Novosibirsk, 1984, 177 p. (RZFZA, 85/9A64).
858. Microelectronic systems and microwave devices. Mikroelektronnyye sistemy i SVCh ustroystva. MIET. Moskva, 1984, 106 p. (RZFZA, 85/9Zh10).
859. Mushinskiy, V.P. (ed). (). Physics of semiconductors and semiconductor microelectronics. Fizika poluprovodnikov i poluprovodnikovoy mikroelektroniki. Kishinev, Shtiintsa, 1985, 115 p. (RZFZA, 85/9N292).
860. Nagibina, I.M. (). Interference and diffraction of light. Interferentsiya i difraktsiya sveta. 2nd edition, revised and enlarged. Leningrad, Mashinostroyeniye, 1985, 332 p. (RZFZA, 85/10A47).
861. Paton, B.Ye. (ed). (). Physics and chemistry of plasma metallurgical processes. Fizika i khimiya plazmennykh metallurgicheskikh protsessov. Moskva, Nauka, 1985, 184 p. (RZFZA, 85/10G725).
862. Processes of energy transfer in metal vapor. Protsessy perenosa energii v parakh metallov. LatGU. Riga, 1985, 122 p. (RZFZA, 85/10I44).
863. Progressive methods for fabricating modern optical instruments. Progressivnyye metody izgotovleniya sovremennykh opticheskikh priborov. NIIGAIK. Mezhevuzovskiy sbornik nauchnykh trudov, no. 20/60, 1984, 102 p. (RZFZA, 85/9L503).
864. Samokhvalov, I.V. (ed). (). Correlation methods for laser ranging measurements of wind velocity. Korrelyatsionnyye metody lazerno-lokatsionnykh izmereniy skorosti vetra. Novosibirsk, nauka, 1985, 223 p. (RZRAB, 85/9Ye761).
865. Shabanov, V.F. (). Nonlinear optics and spectroscopy of molecular media. Nelineynaya optika i spektroskopiya molekulyarnykh sred. IFSOAN. Krasnoyarsk, 1984, 223 p. (RZFZA, 85/10L789).

866. Shalimova, K.V. (). Semiconductor physics. Fizika poluprovodnikov. 3rd edition, revised and enlarged. Moskva, Energoatomizdat, 1985, 391 p. (RZFZA, 85/10A46).
867. Shternberg, A.R. (ed). (). Preparation, study and application of transparent ferroceramics. Interdepartmental seminar-exhibition, 2nd, Riga, 8-10 Apr 1985. Summaries of the reports. Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki. CMSVPIPP, 2nd, Riga, 8-10 Apr 1985. Tezisy dokladov. NIIFTT. LatGU. Riga, 1985, 203 p.
868. Studies in the field of spectroscopy and quantum electronics. Republic Conference of Young Scientists on Spectroscopy and Quantum Electronics, 7th, Palanga, 28-29 May 1985. Summaries of the reports. Issledovaniya v oblasti spektroskopii i kvantovoy elektronike. CRKMUSKE, 7th, Palanga, 28-29 May 1985. Tezisy dokladov. IFANLi. Vil'nyus, 1985, 152 p. (RZRAB, 85/10Yel).
869. Tashenov, B.T.; Toropova, T.P.; Lyadzhin, V.A.; Kiriyyenko, G.A.; Derbisalin, M.A.; Tokarev, O.D.; Tem, E.L.; Azhiyev, N.U.; Kaul', B.V.; Samokhvalov, K.P.; Utochkin, K.P.; Kuznetsov, V.P. (auths); Omarov, T.B. (ed). (). Optical probing of the atmosphere. Part 1. Opticheskoye zondirovaniye atmosfery. Chast' 1. AFI. Alma-Ata, Nauka, 1985, 108 p.
870. Theoretical and experimental studies on charged particle accelerators. Teoreticheskiye i eksperimental'nyye issledovaniya uskoritel ey zaryazhennykh chastits. MIFI. Moskva, 1985, 106 p. (RZFZA, 85/9V428).
871. Vasilenko, G.I.; Tsibul'kin, L.M. (). Holographic recognition devices. Golograficheskiye raspoznayushchiye ustroystva. Moskva, Radio i svyaz', 1985, 312 p.
872. Vedenov, A.A.; Gladush, G.G. (). Physical processes in laser processing of materials. Fizicheskiye protsessy pri lazernoy obrabotke materialov. Moskva, Energoatomizdat, 1985, 208 p.

#### IV. SOURCE ABBREVIATIONS

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

AKZHA	Akusticheskiy zhurnal (CTC)
APAHA	Acta physica academiae scientiarum hungaricae (now APHUE)
APHUE	Acta physica hungarica (Budapest) (formerly APAHA)
APYCA	Acta physica et chemica. Szeged
ATPLB	Acta physica polonica. Series A
AVMEB	Avtometriya (CTC)
BPBEE	Buletinul Institutului politehnic Gheorghe Gheorghiu-Dej, Bucuresti. Seria energetica
BWATA	Biuletyn Wojskowej akademii technicznej imieni Jaroslawa Dabrowskiego
CCCCA	Collection of Czechoslovak Chemical Communications (Prague)
CFJOBOQU	Fruehjahrsschule Optik: Beitrage zur Optik und Quantenelektronik
CMSPMEFE	Mezhinstitutskiy seminar: Primeneniye mikro-EVM v fizicheskom eksperimente
CMSVPIPP	Mezhduvedomstvennyy seminar-vystavka: Polucheniye, issledovaniye i primeneniye prozrachnoy segnetokeramiki
CRABA	Bolgarskaya akademiya nauk. Doklady (formerly: Bulgarska akademiya na naukite. Doklady)
CRKMUSKE	Respublikanskaya konferentsiya molodykh uchenykh po spektroskopii i kvantovoy elektroniki
CSUSSNPS	Simpozium uchenykh sotsialisticheskikh stran po novym problemam spektroskopii

CVSFVZCh Vsesoyuznoye soveshchaniye po fizike  
vzaimodeystviya zaryazhennykh chastits s  
kristallam

CVShYaFi Vsesoyuznaya shkola po yadernoy fizike

CVSPEIMF Vsesoyuznyy seminar: Progress  
eksperimental'nykh issledovaniy na mezonnoy  
fabrike IYaI AN SSSR

CZYPA Czechoslovak Journal of Physics

DANKA Akademiya nauk SSSR. Doklady (CTC)

DBLRA Akademiya nauk BSSR. Doklady

DEFKA Defektoskopiya (CTC)

DUKAB Akademiya nauk Ukrayns'koy RSR. Dopovidi.  
Seriya A. Fiziko-matematychni ta tekhnichni  
nauki

EKNTB Elektronika (Warsaw)

EKVZA Elektrosvyaz' (CTC)

ELKTA Elektrotekhnika (CTC)

ELVEA Elektrotehniski vjesnik

EOBMA Elektronnaya obrabotka materialov (CTC)

ETFMB Akademiya nauk Estonskoy SSR. Izvestiya.  
Fizika, matematika

EXPPA Eksperimentelle Technik der Physik

FGRTA Feingeraetetechnik

FGVZA Fizika gorennya i vzryva (CTC)

FIPLD Fizika plazmy (Moskva, AN SSSR) (CTC)

FISZA Fizikai szemle (Budapest)

FKSTD Fizika i khimiya stekla (CTC)

FMBMA Fiziko-matematichesko spisanie.  
Bulgarska akademiya na naukite

FTPPA	Fizika i tekhnika poluprovodnikov (CTC)
FTVTA	Fizika tverdogo tela (CTC)
FZELA	Fizicheskaya elektronika (sbornik, L'vov)
IAAFA	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IANFA	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya (CTC)
IVNMA	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy (CTC)
IVUBA	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye (CTC)
IVUFA	Izvestiya vysshikh uchebnykh zavedeniy. Fizika (CTC)
IVUOA	Izvestiya vysshikh uchebnykh zavedeniy. Gornyy zhurnal
IVUSA	Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye
IVUZB	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVYRA	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika (CTC)
IZFMB	Akademiya nauk Moldavskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IZTEA	Izmeritel'naya tekhnika (CTC)
KHFID	Khimicheskaya fizika (CTC)
KHVKA	Khimiya vysokikh energiy (CTC)
KLMIA	Klinicheskaya meditsina
KNKTA	Kinetika i kataliz (CTC)
KRISA	Kristallografiya (CTC)
KRSFA	Kratkiye soobshcheniya po fizike (CTC)

KVEKA	Kvantovaya elektronika (journal, Moskva) (CTC)
KVELA	Kvantovaya elektronika (sbornik, Kiyev)
MKETA	Mikroelektronika (journal, Moskva) (CTC)
MSRGA	Messen, Steuern, Regeln (East Berlin)
MTOMA	Metallovedeniye i termicheskaya obrabotka metallov (CTC)
MTRLB	Metrologiya
NACHA	Nachrichtentechnik-Elektronik (GDR)
NASRD	Nauka v SSSR
OPAPB	Optica applicata (Poland)
OPMPA	Optiko-mekhanicheskaya promyshlennost' (CTC)
OPSPA	Optika i spektroskopiya (CTC)
OTIZD	Otkrytiya, izobreneniya
PAUKA	Pomiary, automatyka, kontrola
PFKMD	Poverkhnost'. Fizika, khimiya, mekhanika (Moskva)
PRSUB	Pribory i sistemy upravleniya (CTC)
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)
RAELA	Radiotekhnika i elektronika (journal, Moskva) (CTC)
RATEA	Radiotekhnika (journal, Moskva) (CTC)
RRPQA	Revue Roumaine de Physique
RTKHA	Radiotekhnika (sbornik, Khar'kov)
RZETA	Rozprawy elektrotechniczne

RZFZA	Referativnyy zhurnal. Fizika
RZGFA	Referativnyy zhurnal. Geofizika
RZMKA	Referativnyy zhurnal. Mekhanika
RZRAB	Referativnyy zhurnal. Radiotekhnika
SAKNA	Akademiya nauk Gruzinskoy SSR. Soobshcheniya
SBBPA	Studia Universitatis Babes-Bolyai. Physica (Cluj)
SCEFA	Studii si cercetari de fizica
STALA	Stal
SUDOAA	Sudostroyeniye (Leningrad)
TEHBA	Tehnika (Yugoslavia)
TKHMA	Tekhnika molodezhi
TKTEA	Tekhnika kino i televideniya
TVYTA	Teplofizika vysokikh temperatur (CTC)
UFNAA	Uspekhi fizicheskikh nauk (CTC)
UFZHA	Ukrainskiy fizicheskiy zhurnal (CTC)
VANSA	Akademiya nauk SSSR. Vestnik (CTC)
VBSFA	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
VKPRB	Kiyevskiy politekhnicheskii institut. Vestnik. Seriya radioelektronika
VMUFA	Moskovskiy universitet. Vestnik. fizika, astronomiya (CTC)
WZHMA	Wissenschaftliche Zeitschrift der Humboldt Universitaet zu Berlin. Mathematisch- naturwissenschaftliche Reihe (East Berlin)

ZAKHA	Zhurnal analiticheskoy khimii (CTC)
ZDBEA	Zdravookhraneniye Belorussii
ZETFA	Zhurnal eksperimental'noy i teoreticheskoy fiziki (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)
ZPKHA	Zhurnal prikladnoy khimii
ZPMFA	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC)
ZPSBA	Zhurnal prikladnoy spektroskopii (CTC)
ZTEFA	Zhurnal tekhnicheskoy fiziki (CTC)
ZUNBA	Zhurnal ushnykh, nosovykh i gorlovykh bolezney
ZVDLA	Zavodskaya laboratoriya (CTC)
ZVMFA	Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki (CTC)



## V. AUTHOR AFFILIATIONS

AAO

Abastumanskaya astrofizicheskaya observatoriya  
AN GruzSSR  
Abastumani Astrophysical Observatory, Academy of  
Sciences Georgian SSR

AFI

Astrofizicheskiy institut AN Kaz SSR  
Astrophysical Institute, Academy of Sciences Kazakh SSR

API

Altayskiy politekhnicheskiy institut  
Altay Polytechnical Institute, Barnaul

BGU

Belorusskiy gos universitet  
Belorussian State University

DFTI

Donetskiy fiziko-tekhnicheskiy institut AN UkrSSR  
Donetsk Physicotechnical Institute, Academy of  
Sciences Ukrainian SSR

FIAN

Fizicheskiy institut im Lebedeva AN SSSR  
Physics Institute imeni Lebedev, Academy of Sciences  
USSR, Moscow

FIANKuy

Kuybyshevskiy filial Fizicheskogo instituta AN SSSR  
Kuybyshev Branch of the Physics Institute, Academy of  
Sciences USSR

FTI

Fiziko-tekhnicheskiy institut im Ioffe AN SSSR  
Physicotechnical Institute im Ioffe, Academy of  
Sciences USSR, Leningrad

FTIANTadzh

Fiziko-tekhnicheskiy institut AN TadzhSSR  
Physicotechnical Institute, Academy of Sciences  
Tadzhik SSR, Dushanbe

GGU

Gor'kovskiy gos universitet  
Gor'kiy State University

GOI

Gosudarstvennyy opticheskiy institut im Vavilova  
State Optical Institute imeni Vavilov, Leningrad

IAE

Institut atomnoy energii im Kurchatova  
Institute of Atomic Energy imeni Kurchatov, Moscow

IAESOAN

Institut avtomatiki i elektrometrii SOAN  
Institute of Automation and Electronic Measurements,  
Siberian Branch Academy of Sciences USSR

IBFiz  
Institut biologicheskoy fiziki AN SSSR  
Institute of Biological Physics, Academy of Sciences  
USSR, Pushchino

IEANBel  
Institut elektroniki AN BSSR  
Institute of Electronics, Academy of Sciences  
Belorussian SSR, Minsk

IED  
Institut elektrodinamiki AN UkrSSR  
Institute of Electrodynamics, Academy of Sciences  
Ukrainian SSR

IEM  
Institut eksperimental'noy meteorologii  
Institute of Experimental meteorology, Obninsk

IFANB  
Institut fiziki AN BSSR  
Institute of Physics, Academy of Sciences  
Belorussian SSR, Minsk

IFANBMO  
Mogilevskiy filial Instituta fiziki AN BSSR  
Mogilev Branch of the Institute of Physics,  
Academy of Sciences Belorussian SSR

IFANLa  
Institut fiziki AN LatSSR  
Institute of Physics, Academy of Sciences Latvian SSR,  
Salaspils

IFANLi  
Institut fiziki AN LitSSR  
Institute of Physics, Academy of Sciences Lithuanian SSR

IFANUK  
Institut fiziki AN UkrSSR  
Institute of Physics, Academy of Sciences Ukrainian SSR,  
Kiev

IFI  
Institut fizicheskikh issledovaniy AN ArmSSR  
Institute of Physics Research, Academy of Sciences  
Armenian SSR

IFPV  
Institut fiziki poluprovodnikov AN LitSSR  
Institute of Semiconductor Physics, Academy of Sciences  
Lithuanian SSR, Vilnius

IFSOAN  
Institut fiziki SOAN  
Institute of Physics, Siberian Branch Academy of  
Sciences USSR, Krasnoyarsk

IFTT  
Institut fiziki tverdogo tela AN SSSR  
Institute of Solid State Physics, Academy of  
Sciences USSR, Chernogolovka

**IFTTP**  
 Institut fiziki tverdogo tela i poluprovodnikov AN BSSR  
 Institute of Solid State and Semiconductor Physics,  
 Academy of Sciences Belorussian SSR, Minsk

**IFZ**  
 Institut fiziki Zemli im Shmidta AN SSSR  
 Institute of Physics of the Earth imeni Shmidt,  
 Academy of Sciences USSR

**IGM**  
 Institut gidromekhaniki AN UkrSSR  
 Institute of Hydromechanics, Academy of Sciences  
 Ukrainian SSR, Kiev

**IGU**  
 Irkutskiy gos universitet  
 Irkutsk State University

**IKAN**  
 Institut kristallografii AN SSSR  
 Institute of Crystallography, Academy of Sciences  
 USSR, Moscow

**IKhAN**  
 Institut khimii AN SSSR  
 Institute of Chemistry, Academy of Sciences USSR,  
 Gor'kiy

**IKhF**  
 Institut khimicheskoy fiziki AN SSSR  
 Institute of Physics of Chemistry, Academy of Sciences  
 USSR, Chernogolovka

**IKI**  
 Institut kosmicheskikh issledovaniy AN SSSR  
 Institute of Space Research, Academy of Sciences USSR

**IMET**  
 Institut metallurgii im Baykova  
 Institute of Metallurgy imeni Baykov, Moscow

**Informelektro**  
 Tsentral'nyy NII informatsii i tekhniko-ekonomicheskikh  
 issledovaniy v elektrotekhnike  
 Central Scientific Research Institute of Information  
 and Technical Economic Research in Electric  
 Engineering, Moscow

**INKhS**  
 Institut neftekhimicheskogo sinteza AN SSSR  
 Institute of Petrochemical Synthesis, Academy of  
 Sciences USSR, Moscow

**IOA**  
 Institut optiki atmosfery SOAN  
 Institute of Atmospheric Optics, Siberian Branch  
 Academy of Sciences USSR

**IOAN**  
 Institut okeanologii AN SSSR  
 Institute of Oceanography, Academy of Sciences  
 USSR, Moscow

IOF  
Institut obshchey fiziki AN SSSR  
Institute of General Physics, Academy of Sciences  
USSR, Moscow

IONKh  
Institut obshchey i neorganicheskoy khimii  
im Kurnakova AN SSSR  
Institute of General and Inorganic Chemistry imeni  
Kurnakov, Academy of Sciences USSR, Moscow

IPANUK  
Institut poluprovodnikov AN UkrSSR  
Institute of Semiconductors, Academy of Sciences  
Ukrainian SSR, Kiev

IPF  
Institut prikladnoy fiziki AN SSSR  
Institute of Applied Physics, Academy of Sciences  
USSR, Gor'kiy

IPFANM  
Institut prikladnoy fiziki AN MSSR  
Institute of Applied Physics, Academy of Sciences  
Moldavian SSR, Kishinev

IPM  
Institut prikladnoy matematiki AN SSSR  
Institute of Applied Mathematics, Academy of Sciences  
USSR

IPMe  
Institut problem mekhaniki AN SSSR  
Institute of Problems of Mechanics, Academy of Sciences  
USSR, Moscow

IPMekh  
Institut prikladnoy mekhaniki AN SSSR  
Institute of Applied Mechanics, Academy of Sciences USSR

IPPM  
Institut prikladnykh problem mekhaniki i matematiki  
AN UkrSSR  
Institute of Applied Problems in Mechanics and  
Mathematics, Academy of Sciences Ukrainian SSR, L'vov

IPTMOM  
Institut problem tekhnologii mikroelektroniki i  
osobochistykh materialov AN SSSR  
Institute for Problems of the Technology of  
Microelectronics and Extra Pure Materials, Academy of  
Sciences USSR, Chernogolovka

IRE  
Institut radiotekhniki i elektroniki AN SSSR  
Institute of Radioengineering and Electronics, Academy  
of Sciences USSR, Moscow

IRFEANUK  
Institut radiofiziki i elektroniki AN UkrSSR  
Institute of Radiophysics and Electronics, Academy of  
Sciences Ukrainian SSR

ISAN  
Institut spektroskopii AN SSSR  
Institute of Spectroscopy, Academy of Sciences USSR

ISE  
Institut sil'notochnoy elektroniki SOAN  
Institute of High-Current Electronics, Siberian Branch  
Academy of Sciences USSR, Tomsk

ITEF  
Institut teoreticheskoy i eksperimental'noy fiziki  
Institute of Theoretical and Experimental Physics, Moscow

ITeFUK  
Institut teoreticheskoy fiziki AN UkrSSR  
Institute of Theoretical Physics, Academy of Sciences  
Ukrainian SSR, Kiev

ITF  
Institut teplofiziki SOAN  
Institute of Thermophysics, Siberian Branch Academy of  
Sciences USSR, Novosibirsk

ITMO  
Institut teplo- i massoobmena AN BSSR  
Institute of Heat and Mass Exchange, Academy of Sciences  
Belorussian SSR

ITPM  
Institut teoreticheskoy i prikladnoy mekhaniki SOAN  
Institute of Theoretical and Applied Mechanics, Siberian  
Branch Academy of Sciences USSR, Novosibirsk

IVTAN  
Institut vysokikh temperatur AN SSSR  
Institute of High Temperatures, Academy of Sciences USSR

IYaFANUZ  
Institut yadernoy fiziki AN UzSSR  
Institute of Nuclear Physics, Academy of Sciences  
Uzbek SSR, Ulugbek

IYaFSOAN  
Institut yadernoy fiziki SOAN  
Institute of Nuclear Physics, Siberian Branch Academy of  
Sciences USSR, Novosibirsk

IYaIAN  
Institut yadernykh issledovaniy AN SSSR  
Institute of Nuclear Research, Academy of Sciences  
USSR, Moscow

IZMIRAN  
Institut zemnogo magnetizma, ionosfery i  
rasprostraneniya radiovoln AN SSSR  
Institute of Terrestrial Magnetism, the Ionosphere  
and Radiowave Propagation, Academy of Sciences USSR

KabbalkGU  
Kabardino-Balkarskiy GU  
kabardino-Balkarskian State University, Nal'chik

**KaGU**  
 Kazanskiy gos universitet  
 Kazan' State University

**KalinGU**  
 Kalininskiy gos universitet  
 Kalinin State University

**KeGU**  
 Kemerovskiyy gos universitet  
 Kemerov State University

**KGU**  
 Kiyevskiy gos universitet  
 Kiev State University

**KhGU**  
 Khar'kovskiy gos universitet  
 Khar'kov State University

**KIYaI**  
 Institut yadernykh issledovaniy AN UkrSSR  
 Institute of Nuclear Research, Academy of  
 Sciences Ukrainian SSR, Kiev

**KPIA**  
 Kiyevskiy politekhnicheskiy institut  
 Kiev Polytechnic Institute

**KuAI**  
 Kuybyshevskiy aviatsionnyy institut  
 Kuybyshev Aviation Institute

**LatGU**  
 Latviyskiy gos universitet  
 Latvian State University

**LETI**  
 Leningradskiy elektrotekhnicheskiy institut  
 Leningrad Electric Engineering Institute

**IGU**  
 Leningradskiy gos universitet  
 Leningrad State University

**LIAP**  
 Leningradskiy institut aviatsionnogo priborostroyeniya  
 Leningrad Institute of Aviation Instrument Manufacture

**LITMO**  
 Leningradskiy institut tochnoy mekhaniki i optiki  
 Leningrad Institute of Precision Mechanics and Optics

**LIYaF**  
 Leningradskiy institut yadernoy fiziki im B.P.  
 Konstantinova, AN SSSR  
 Leningrad Institute of Nuclear Physics imeni B.P.  
 Konstantinov, Academy of Sciences USSR, Leningrad

**LNIVTs**  
 Leningradskiy NI vychislitel'nyy tsentr AN SSSR  
 Leningrad Scientific Research Computer Center,  
 Academy of Sciences USSR

LPI  
Leningradskiy politekhnicheskii institut  
Leningrad Polytechnic Institute

LSGMI  
Leningradskiy sanitarno-gigiyenicheskii  
meditsinskiy institut  
Leningrad Medical Institute of Public Health

LvGU  
L'vovskiy gos universitet  
L'vov State University

MAI  
Moskovskiy aviatsionnyy institut  
Moscow Aviation Institute

MarGU  
Mariyskiy GU  
Mari State University, Yoshkar-Ola

MATI  
Moskovskiy aviatsionnyy tekhnologicheskii institut  
Moscow Aviation Technical Institute

MEI  
Moskovskiy energeticheskii institut  
Moscow Power Engineering Institute

MEIS  
Moskovskiy elektrotekhnicheskii institut svyazi  
Moscow Electrotechnical Institute of Communications

MFTI  
Moskovskiy fiziko-tekhnicheskii institut  
Moscow Physicotechnical Institute

MGU  
Moskovskiy gos universitet  
Moscow State University

MIET  
Moskovskiy institut elektronnoy tekhniki  
Moscow Institute of Electronic Engineering

MIFI  
Moskovskiy inzhenerno-fizicheskii institut  
Moscow Engineering Physics Institute

MIIT  
Moskovskiy institut inzhenerov zheleznodorozhnogo  
transporta  
Moscow Institute of Railroad Transport Engineers

MinGMI  
Minskiy gos meditsinskiy institut  
Minsk State Medical Institute

MIREA  
Moskovskiy institut radiotekhniki, elektroniki i  
avtomatiki  
Moscow Institute of Radio Engineering, Electronics  
and Automation

MKhTI  
Moskovskiy khimiko-tekhnologicheskii institut  
im Mendeleeva  
Moscow Institute of Chemical Technology imeni  
Mendeleev

MRI  
Minskiy radiotekhnicheskii institut  
Minsk Radio Engineering Institute

NEIS  
Novosibirskiy elektrotekhnicheskii institut svyazi  
Novosibirsk Electrotechnical Institute of Communications

NETI  
Novosibirskiy elektrotekhnicheskii institut  
Novosibirsk Electrical Engineering Institute

NIFKhI  
NI fiziko-khimicheskii institut im Karpova  
Scientific Research Institute of Physicochemistry  
imeni Karpov

NIIBIKhS  
NII po biologicheskim ispytaniyam khimicheskikh  
soyedineniy  
Scientific Research Institute for Biological Tests  
of Chemical Compounds, Kupavna, Moscow Region

NIIFKS  
NII fiziki kondensirovannykh sred Yerevanskogo  
gos universiteta  
Scientific Research Institute of the Physics of  
Condensed Media of Yerevan State University

NIIFL  
NII fiziki pri Leningradskom gos universitete  
Scientific Research Institute of Physics at Leningrad  
State University

NIIFOd  
NII fiziki Odesskogo gos universiteta  
Scientific Research Institute of Physics  
of Odessa State University

NIIFRGU  
NII fiziki Rostovskogo gos universiteta  
Scientific Research Institute of Physics of  
Rostov State University

NIIFTT  
NII fiziki tverdogo tela Latviyskogo GU  
Scientific Research Institut of Solid State Physics  
of the Latvian State University, Riga

NIIGAiK  
Novosibirskiy institut inzhenerov geodezii,  
aerofotos"yemki i kartografii  
Novosibirsk Institute for Engineers of Geodesy,  
Aerial Surveying and Cartography



NIIMPS

NII meditsinskikh problem Severa SO AMN SSSR  
Scientific Research Institute of Medical  
Problems of the North, Siberian Branch  
Academy of Medical Sciences USSR

NIIYaF

NII yadernoy fiziki pri Moskovskom gos universitete  
Scientific Research Institute of Nuclear Physics at  
Moscow State University

NIIYaFEA

NII yadernoy fiziki, elektroniki i avtomatiki pri  
Tomskom politekhnicheskoye institute  
Scientific Research Institute of Nuclear Physics,  
Electronics and Automation at Tomsk Polytechnic  
Institute

NIIYaFT

NII yadernoy fiziki Tomskogo politekhnicheskoye  
instituta  
Scientific Research Institute of Nuclear Physics  
of Tomsk Polytechnic Institute

NITsTLAN

NI tsentr po tekhnologicheskim lazeram AN SSSR  
Scientific Research Center for Industrial Lasers,  
Academy of Sciences USSR

NSPGAN

Nauchnyy sovet AN SSSR po probleme "Golografiya"  
Scientific Council on Holography, Academy of Sciences USSR

OIYaI

Ob"yedinennyy institut yadernykh issledovaniy  
Joint Institute of Nuclear Research, Dubna

RRTI

Ryazanskiy radiotekhnicheskoye institut  
Ryazan' Radio Engineering Institute

SAO

Spetsial'naya astrofizicheskaya observatoriya  
AN SSSR  
Special Astrophysical Observatory, Academy of  
Sciences USSR

SGI

Sverdlovskiy gornyy institut  
Sverdlovsk Mining Institute

SKBAPNTO

Spetsial'noye konstruktorskoye byuro analiticheskogo  
priborostroyeniya Nauchno-tekhnicheskogo obshchestva  
AN SSSR  
Special Design Bureau for Analytical Instrument  
Manufacture of the Scientific and Technical  
Society, Academy of Sciences USSR

SMI

Smolenskiy gosudarstvennyy meditsinskiy institut  
Smolensk State Medical Institute

TashGU  
 Tashkentskiy gos universitet  
 Tashkent State University  
 ToPI  
 Tomskiy politekhnicheskiy institut  
 Tomsk Polytechnic Institute  
 TsNIIE  
 Tsentral'nyy NII "Elektronika"  
 "Elektronika" Central Scientific Research Institute,  
 Moscow  
 TsNIIGAik  
 Tsentral'nyy NII geodezii, aerofotos"yemki i kartografii  
 Central Scientific Research Institute of Geodesy, Aerial  
 Photography and Cartography, Moscow  
 TsNIKIF  
 Tsentral'nyy NII kurortologii i fizioterapii Ministerstva  
 zdravokhraneniya SSSR  
 Central Scientific Research Institute of Health Resort  
 Treatment and Physiotherapy, USSR Ministry of Health  
 TsNIIMTMash  
 Tsentral'nyy NII materialov i tekhnologii  
 tyazhelogo i transportnogo mashinostroyeniya  
 Central Scientific Research Institute of  
 Materials and Technology for Heavy and  
 Transportation Machine Building, Sverdlovsk  
 TyUGU  
 Tyumenskiy gos university  
 Tyumen State University  
 UDN  
 Universitet druzhby narodov im Lumumby  
 University of Friendship Among Peoples  
 imeni Lumumba, Moscow  
 UkrIIVKh  
 Ukrainskiy institut inzhenerov vodnogo khozyaystva  
 Ukrainian Institute of Water Management Engineers, Rovno  
 UkrNIINTI  
 Ukrainskiy NII nauchno-tekhnicheskoy informatsii i  
 tekhniko-ekonomicheskikh issledovaniy Gosplana  
 UkrSSR  
 Ukrainian Scientific Research Institute of Scientific  
 and Technical Information and of Technical Economic  
 Studies for the State Plan of the Ukrainian SSR, Kiev  
 UralNIITP  
 Ural'skiy NII trubnoy promyshlennosti  
 Ural Scientific Research Institute of the  
 Pipe Industry  
 UrPI  
 Ural'skiy politekhnicheskiy institut  
 Ural Polytechnical Institute, Sverdlovsk

UzhGU  
Uzhgorodskiy gos universitet  
Uzhgorod State University

VGI  
Vysokogornyy geofizicheskiy institut  
High-Altitude Geophysical Institute, Nal'chik

VilGU  
Vil'nyusskiy gos universitet  
Vilnius State University

VINITI  
Vsesoyuznyy institut nauchnoy i tekhnicheskoy  
informatsii  
All-Union Institute of Scientific and Technical  
Information, Moscow

VMI  
Voroshilovgradskiy mashinostroitel'nyy institut  
Voroshilovgrad Machine Building Institute

VNIFTRI  
VNII fiziko-tekhnicheskikh i radiotekhnicheskikh  
izmereniy  
All-Union Scientific Research Institute of Physico-  
technical and Radiotechnical Measurements, Moscow

VNIINP  
VNII po pererabotke nefi  
All-Union Scientific Research Institute  
of Oil Refining, Moscow

VNIISV  
VNII sinteticheskikh volokon  
All-Union Scientific Research Institute of  
Synthetic Fibers, Kalinin

VNIITEMR  
VNII informatsii i tekhniko-ekonomicheskikh  
issledovaniy po mashinostroyeniyu i robototekhnike  
Ministerstva stankostroitel'noy i instrumental'noy  
promyshlennosti  
All-Union Scientific Research Institute of Information  
and Technical Economic Studies on Machinebuilding  
and Robotics, Ministry of the Machine Tool and  
Instrument Industry, Moscow

VNIYYaGG  
VNII yadernoy geofiziki i geokhimii  
All-Union Scientific Research Institute of Nuclear  
Geophysics and Geochemistry, Moscow

VI. AUTHOR INDEX

ABAZEKHOV M M	84	ANIKIN S A	34	BARLEA M	4
ABDUPATAYEV R	84	ANIKIN V I	37	BARMASHENKO B D	15,16
ABIL'SIITOV G A	36	ANSEL'M A A	46	BARYBIN D F	82
ABLEKOV V K	8	ANTIPENKO A G	58	BARYSHEVSKIY V G	34
ABRAMOV A A	37	ANTIPENKO B M	70	BASHAROV A M	30
ABRAMOV A G	12	ANTONOVA K	24	BASHMAKOV YU A	33,34
ABRAMSKI K M	56,76	ANTOV K	37	BASKIN B L	85
ABRASHIN V N	34	APAI P	10	BASOV N G	12,14,15
ACHASOV O V	56	APANASEVICH P A	2,34,71		31,33,87
ADAM A	52,59	APOLLONOV V V	34,86	BASOV YU G	2
ADAM F	17	APOLONSKIY A A	86	BASS F G	44
ADAMENKO V	36	APOSTOL D	9,58,83	BATANOV G M	17
ADAMIEC M	57	APOSTOL I	83	BATISHCHE S A	2
ADAMOWICZ T	10	ARAKELOV A G	58	BATYRBKOV G A	14
ADOMAYTIS E I	58	ARAKELIAN S M	24	BAUER J	19,22,38
ADONTS G G	49	ARDELYAN N V	87	BAYBORODIN YU V	59
AFANAS'YEV A A	34	ARESHEV I P	24	BAYEV V M	71
AFANAS'YEV YU V	86	ARISTOV YU V	50	BAYRAMOV B KH	71
AGAL'TSOV A M	70	ARKHIPOV V M	59	BAYTSUR G G	34
AGEYEV A N	40,43	ARSENT'YEV I N	4	BAZAKUTSA P V	79
AGEYEV L A	66,82	ARTEM'YEV YE F	52	BAZAROV A YE	59
AGEYEV V P	81	ARTYUSHIN L F	37	BAZYK A I	66
AGLADZE N I	70	ARUTYUNYAN A G	66	BEDILOV M R	84,87
AGOV B S	36	ASHCHEULOV YU V	52	BEKKIYEV A YU	49
AKHIANOV S A	70	ASHMARIN I I	66	BEKOV G I	71
AKHMEDIYEV N N	28,37,41	ASIMOV M M	7	BELINSKIY A V	49
AKHMEDZHANOV R	70	ASINOVSKIY E I	12	BELOGLAZOV V I	38
AKHOYAN A P	58	ASLANOV G A	85	BELOKON' M V	75
AKHSAKHALYAN A D	86	ASLANYAN L S	24	BELOTELOVA O A	37
AKOPYAN D G	49	ASTADIOV D N	13	BELOUSOV A V	71
AKOPYAN R S	24	ASTAKHOV A V	37	BELOUSOV N A	52
AKOS GY	58	AVDEYEVA V I	6	BELOUSOV P YA	56
AKSENOV V P	46	AVERBUKH I SH	24	BELOUSOV V I	87
AKSENOV YE T	58	AVER'YANOV YE M	25	BELOV N	82
AKTSIPETROV O A	28	AVETISOV V A	34	BELOVOLOV M I	38
ALBRECHT H	68	AYVAZIAN YU M	74	BELYAYEV A A	36
AL'BREKHT G	68	AZAROV V V	79	BELYAYEV A K	66
ALEKPEROV O Z	66	AZHIYEV N U	48,92	BELYAYEV M V	25
ALEKSANDROV A YU	12			BELYAYEV V P	36
ALEKSANDROV I V	62	BAARS G	37,38	BELYKH A D	11
ALEKSANDROV S A	62	BABIN S A	86	BELYY M U	32
ALEKSANDROV YE B	46	BABLUMYAN A S	52	BELYY N M	71
ALEKSANDROV YU M	45,53	BABUKOVA M V	5	BENEDICT M G	25
ALEKSEYEV A S	69	BADALYAN A A	2	BERENBERG V A	5
ALEKSEYEV N N	6	BADANYAN N SH	30	BERESTNEV S P	38
ALESHENKO U A	70	BADZIAK J	10	BEREZHHINSKIY L I	22
ALESHIN V A	58	BAGAYEV S N	71	BEREZHNNOY A A	28
ALESHKEVICH V A	90	BAGDANSKIS N I	70	BERGNER H	66
ALEYNIKOV V S	11,36	BAGDASARYAN KH S	1	BERNSHTEYN V M	22
ALFEROV D F	33,34	BAGDASARYAN M G	52	BEROZASHVILI YU N	58
ALFEROV ZH I	4	BAGNO A N	82	BESPALOV V G	30,52
ALIMARDONOV E	70	BAGRATASHVILI V N	56	BESPALOV V I	90
ALIMBARASHVILI N A	53	BAGROV A M	38	BETIN A A	32,50
ALIMOV D T	82	BAGROV V V	51	BEYSEMBAYEVA KH B	84
ALLAKHVERDIYEV A M	84	BAGROWSKI J	57	BEZAYEVA L G	22
ALLAKHVERDIYEV K R	70	BAKHYSHOV N A	70	BEZUGLYY B A	59
ALTAYSKIY YU M	66	BAKLUNOV YU A	38	BIBINOV N K	15
AL'TSHULER G B	24	BAKOS J S	87	BIRUS D	38
ALYAB'YEV B V	8	BAKUN A A	19	BIRYUKOV S A	14
AMBARTSUMYAN R V	58	BAKUT P A	52	BIUSHVILI L L	79
AMEROV A K	27	BALAGUROV A YA	31	BLANARU C	58
AMINOV F KH	37	BALAYEV V I	40	BLINOV N A	10,46
AMIRYAN A S	24	BALYKIN V I	66,71	BLOKHA V B	66,82
ANAN'YEV V YU	12	BANAKH V A	46	BLUSCHKE A	38
ANDREYEV A A	28,66	BARANNIK I G	59	BOBROV A V	71
ANDREYEV I A	37	BARANOV A N	37	BOBROV B D	12
ANDREYEV V M	84	BARANOV A V	30	BOBROVSKAYA I P	26
ANDREYEV YU A	36	BARANOV V YU	13,14	BOBYR' A V	71
ANDRIYESH A M	19,37	BARANOVA I M	28	BOGAR I	59
ANDRONOVA I A	20	BARANTSEVA S YA	53	BOGDANOV A L	38
ANDRUSHCHAK YE A	58	BARBANEL' I S	52	BOGDANOV S F	2
ANDRYUNAS K	30	BARIKHIN B A	6	BOGDANOVA I P	9

BOGDANOVA T I	79	BUZYALIS R R	31	DANILOV D G	77
BOHRISCH H J	19	BUZYKIN O G	82	DANILOV YU I	38
BOKHAN P A	67	BYALKO A V	46	DANILOVA I N	36
BOKUT' B V	44	BYCHKOV YU I	15	DANILOVSKIY M I	64
BOLDENKOV G F	71	BYKADOROV A V	23	DANILYCHEV V A	12,14,31
BOLOGA M K	23	BYKOV A P	59	DAN'SHCHIKOV YE V	80,88
BOLOTIN O A	85	BYKOV V N	87	DARBINYAN S M	25
BOL'SHAKOV A A	72	BYKOVSKIY YU A	59,66,87	DASHUK P N	72
BOL'SHAKOV O P	62	BYSTRITSKIY V M	87	DATSKEVICH N P	88
BOL'SHINSKIY L G	25	BYSTROV YE M	22	DAUBAYEV U	64
BOL'SHOV M A	72			DAVYDCHENKO A G	76
BONCH-BRUYEVICH A M	82	CANDEA R M	4	DAVYDOV A A	49
BONCH-OSMOLOVSKIY M M	69	CATUNEANU V M	9	DAVYDOV I A	72
BONDAREV YE F	22	CHALEY A V	26	DAVYDOV V YU	73
BONDUR V G	38	CHALKIN S F	89	DAYLYUDENKO V F	51
BOR ZS	6	CHANKIN A V	53	DEKAL'CHUK A A	4
BOREYSHO A S	14	CHAPLIYEV N I	21,83	DEKAL'CHUK T V	4
BORISENOK N I	52	CHARUKHCHEN A V		DEKANOZISHVILI G G	53
BORISKEVICH A A	51	CHAZOV YE I	36	DEMCHENKO N N	87,89
BORISOV A V	36	CHEBOTAYEV V P	25,56,71	DEMCHUK M I	6
BORISOV V A	59	CHEBURKIN N V	10,46	DEMENT'YEV A S	31
BORISOV V M	14	CHEGOTOV M V	31	DEMGIN V N	13
BORISOV YE N	67	CHEKHLOV O V	5	DEMOCHKO YU A	79
BORKINA G YU	37	CHEKMAREV A M	87	DEM'YANOV A V	11
BORKOVA V N	72	CHEKMAREV V M	21	DEM'YANTSEVA S D	23
BORKOWSKA A	23	CHEPILKO A G	26	DENISKIN S A	63
BORODIN I P	79	CHERNEVSKAYA E G	21	DENISOV L K	73
BORODIN V G	46	CHERNIKOV I A	22	DENISOV V I	72
BORODINA L V	64	CHERNOBROD B M	72	DENISOV V N	73
BORSHCH A A	67	CHERNOV S A	84	DENISOV YU N	8
BORZECKI M	10	CHERNYAYEVA YE B	36	DENISYUK YU N	90
BOUTIN J G	20	CHERNYKH D F	60	DENUS S	88
BOYARSKIY K K	46	CHERNYKH V A	40	DERBISALIN M A	47,92
BOYKO B B	5	CHERNYSHEV A P	40	DERKACH V N	17
BOYKO S A	27	CHERNYSHOV YE E	52	DERZHIYEV V I	8
BOYKO V V	10	CHERTANOV S P	58	DEVDAIANI A Z	66
BRAGIN M A	36	CHESNULYAVICHYUS Y Y	7	DEVYATYKH G G	38
BRATIVNIK YE V	82	CHETVERUSHKIN B N	86	DEYEV L YE	56
BRAYERSKAYA V I	85	CHIGIREV A N	40	DIANOV YE M	33,37,38,39
BRAZOVSKAYA N V	44	CHIKISHEV A	36	DIDENKO A N	87
BRAZOVSKIY V YE	44	CHILINGARYAN YU S	24	DIDENKO A YA	67
BRITOV A D	75	CHILLAG L	68	DIK V P	44
BRODIN M S	67	CHIRAKADZE A A	58	DIKOV YU P	47
BRODZELI M I	53	CHIRKIN M V	89	DINESCU M	83
BROUN L M	36	CHIRTOC M	4	DINEV D	88
BRUECKNER V	66	CHISLER E V	73	DMITRIYEV A K	9
BRUNKE W	41	CHISTYAKOV A	59	DMITRIYEV A YE	34
BRUY V P	53	CHISTYAKOV A A	66	DMITRIYEV N I	50
BRUY YE B	52	CHMEL' A YE	84	DNEPROVSKIY V S	25
BRYSKIN V Z	52	CHOJNACKA A	10	DOBROV G S	38
BRYUKOV M G	12	CHUBAROV M S	63	DOBROVOL'SKIS Z P	58
BUACHIDZE Z E	39	CHUBRIK N I	78	DOBRZHANSKIY G F	73
BUBNOV M M	37	CHUKANOV O P	65	DOLGIKH V A	12
BUDAK V P	46	CHUKHROV A S	22	DOLININA V I	11
BUDZULYAK I M	85	CHUKIN G D	77	DOLNY A	49
BUKIN O A	46	CHUPAZHIN V N	51	DOMBROVSKIY V V	22
BULANIN M O	70,72	CHUPLANOV A N	40	DOMELUNKSEN V G	17
BULANIN V V	87	CHUPRYNA V A	32,57	DOMORYAD I A	59
BULDAKOV V M	46	CHURAKOV V V	11,73	DONSKOY YE I	74
BULYSHEV A YE	72	CHURBANOV M F	38	DOROFEYEV I A	8
BUNKIN A F	72	CHVYALEVA L V	78	DOROFEYEV O A	31
BUNKIN F V	8,82	CHVYREV I M	39	DOVCHENKO N K	39
BURAKOV V A	82	COJOCARU E	87,88	DOVGII YU O	53
BURAKOVA N M	82	COSMA B T	12	DOVZHENKO A V	81
BURBAYEV T M	85	CSILLAG L	10	DRAZEK W	12
BURGHOFF U	19,38,63	CSOMOR R	58	DROKIN A I	22
BURIMOV V N	56			DRYAPIKO N K	66
BURLAK G N	32	DADARLAT D	4	DUBETSKIY B YA	25,67
BURLIKOWSKI R	39	DALAKISHVILI G L	60	DUBOVSKIY P YE	11
BURMISTROV A V	82	DAMIAN V	58	DUBROV M N	58
BUSS W	23	DANILEVICH O I	85	DUBYANSKIY V A	12
BUSURIN V I	59	DANILEYKO M V	9	DUMAREVSKIY YU D	38
BUTUSOV M M	37,39	DANILEYKO YU K	84	DUMBRAVYANU R V	70

DVOFFINA M I	36	FURZIKOV N P	48	GORBUNOV L M	25
D'YACHENKO V F	88	FURZIKOV N P	36	GORDIYENKO V N	40
D'YACHKOV P I	80	FUZESSY Z	59,60	GORDON YE B	15
DYAD'KIN A P	13	GABIBOV F S	56	GORELENKO A YA	6
DYANPOV G L	38	GAFIYCHUK V V	59,60	GORELENOK A T	4
DYCHKOV A S	71	GALKIN S L	56	GORELIK D O	47
DYKMAN M I	27	GALKINA N B	85	GORELIK V S	70,73
DYMSHAKOV V A	80,88	GALKINA T I	37	GORELOVA YE L	44
DYUBA V M	36	GAL'PERN A D	44	GORNIC G	58
DYULAI I	78	GALUMYAN A S	69	GOROBCHENKO A A	22
DZHAPIASHVILI V P	60	GAMALIY V F	53	GORODECHNYY B V	23
DZHUN' I V	60,64	GAMALIY YE G	72	GORODETSKAYA O G	75
DZMURAN P	80	GANGRSKIY YU P	71	GORODETSKIY I YA	58
DZWIGALSKI Z	10	GANZHERLI N M	87	GORKHOV A A	28
DZYUBENKO M I	18	GAPONENKO S V	73	GORYACHEV B V	45
EBEPLEIN D	41	GAPONOV S V	60	GRANSKIY P V	70
ECKAPET P	21	GAPONOV-GREKHOV A V	67	GRASYUK A Z	8
EPENDIYEV T SH	6, 7,33	GAPOTCHENKO N I	86	GRAVCHIKOV A S	2
EM A S	86	GARBYZOV D Z	90	GREBENYUK YE I	64
ENGLAGE P	39	GARYAGDYEV G	17	GREBNEV A A	64
ERPEET G	3	GASHIMZADE F M	4	GRIKOVSKIY V P	67
ETSIN S S	64	GASHIAP V YE	58	GRIDNEV V N	40
FADEYEV A V	86	GASHIAP V YE	70	GRIGORYAN G L	24
FADEYEV V V	49	GASPARYAN S S	85	GRIGORYAN V G	24
FALK H	76	GASS A N	90	GRIGOR'YEV I S	53
FAL'Y KB	76	GATEVA S V	70	GRIGOR'YEV YU A	67
FAM CIA M B	76	GAUBAS E	9	GRIMAL'SKIY V V	32
FAPADZHEV B G	24	GAVRIKOVA N N	69	GRIMBLATOV V M	19
FASOLD D	39	GAVRILENKO V N	13	GRINCHENKO B I	34
FAVORSKIY A P	87	GAVRILOV S P	7	GRINCHUK V A	67
FAYZULLOV T F	70	GAVRILOV V V	17	GRINEV A YU	53
FEDENEYEV A V	8	GAYDAY YU A	84	GRINKEVICH V E	1
FEDOBCHENKO A M	29	GAYDIDEY YU B	81	GRINSHTEYN M L	40
FEDOROV A A	12	GEKKER I R	28	GRISHINA N V	20
FEDOROV B N	44	GEORGEBIANI A N	58	GRISHINA S P	67
FEDOROV S YE	74	GERASIMCHUK A G	85	GRITSININ S I	17
FEDOROV V B	21	GERASIMOV B P	11	GROMOVOY YU S	68
FEDOROV V B	89	GERASIMOV M V	25	GROZHIC V A	6
FEDOROVA O M	84	GERAS'KO YU V	47	GROZNOV M A	23
FEDOROVICH V YU	68	GILEL'S A M	8	GRUBER H	83
FEDOSOV A I	63	GINAK S N	53	GRUDIN O M	44
FEDOSOV V P	47	GINZBURG S L	60	GRUZDOV V G	4
FEDULEYEV P V	61	GITSU D V	88	GUBANOV V A	71
FEDULOV V M	53	GIZATULIN SH KH	21	GUBAREV A V	14
FEDYANIN A O	87	GLADKIKH V V	14	GUDKOV A N	88
FEKESHGAZI I V	20,28	GLADUSH G G	39	GUETHER R	19
FEL'DMAN A I	63	GLAS P	80,92	GUHR B	21
FEORTISTOV V A	87	GLASER W	3	GUL'BINAS V	7
FERANCHUK I D	34	GLEBOV L B	39	GULIN A V	57
FILIMONOVA L M	43	GLEBOV L S	5,80,84	GUMENNYI S A	5
FILIPPOV A V	38	GLYADKOVSKIY V I	71	GURASHVILI V A	11
FILIPPOV S S	10,46	GNATOVSKIY A V	74	GUREVICH S B	55,60,90
FINKEL'SHTEYN V YU	25	GOLDINA N D	50	GUREVICH V Z	28
FIRSOV K B	34,86	GOL'DORT V G	20	GUR'YANOV A N	37,38
FIRSOV V A	53	GOLENISHCHEV-KUTUPOV A V	56	GURZAN M I	48
FISCHEP P	45	GOLOVASHKIN A I	49	GUSAKOV G M	86
FOLDES I B	87	GOLOVLEV V V	80	GUSAROVA T V	64
FOMENKOV I V	89	GOLUBEV V V	69	GUSEV M YU	20
FOMICHEV B N	39	GOLUBEV A D	56	GUS'KOV S YU	87
FOMIN N A	56	GOLUBEV G P	25	GUS'KOVA M S	60
FOMIN V A	13	GOLUBEV P G	2	GUSOVSKIY D D	38
FORBPIG P	37	GOLUBEV V G	66	GUTIN M A	12
FOYGEL' M G	69	GOLUBKOVA M N	20	GUTOROV M M	47
FRADKOV A B	80	GOLUBNICHII P I	49	GUTOV G S	56
FRANTSESSON A V	42	GONCHARENKO A M	40	GUTYANTOV S V	20
FRIDLJANDER I N	21	GONCHARENKO V P	82	GUZHEVSKAYA A V	43
FRIDMAN P A	65	GONCHAROV V K	83	GVOZDOVSKIY I V	44
FRIDNEV V N	43	GONOV S ZH	85	GYEMANT I	25
FRITZSCHE K	83	GORASHCHENKO N G	33	GYIMESI F	60
FROLOV YU G	75	GORBACHEV M N	18	GYULAI I	78
FROMM V A	80	GORBAN' I S	71		
		GORBAN' S I	20		
		GORBUNOV A A	81		

HAENSCH G	21	KABESHEV V D	40	KERSTAN F	66
HANSSKE A	42	KACHINSKIY A V	5	KEVORKOV A M	1
HARSANY A	83	KADAN V N	67	KHABIBULINA L R	69
HARTWIG P	3	KADYRAKUNOV K B	85	KHABIBULLAYEV P K	82
HEBLING J	6	KALBARCZYK A	10,88	KHALTAKOV I V	15
HEJJAS I	58	KALENT'YEV V A	1	KHANOV V A	91
HELDT J R	73	KALINICHENKO L F	19	KHAPALYUK A P	16
HERRMANN K	78	KALININ A N	60	KHARLAMOV B M	69
HERRMANN R	57	KALININA I V	53	KHASANOV I SH	86
HEVESI I	80	KALININA O D	19	KHASENOV M U	14
HNATOWICZ V	80	KALITEYEVSKIY N I	74	KHASHIMOV R N	70,73
HOFFMANN M	41	KALITIN S P	1	KHATTATOV V U	78
HORAK M	78	KALMYKOV I V	40	KHAYDAROV A V	37
		KALNIN'SH A YA	42	KHAYTBAYEV K	87
IBRAGIMOV SH SH	14	KALOSHA I I	6	KHIMENKO M V	85
IBRAYEV R A	86	KALUGINA T I	80	KHIZHNYAK A I	62
IGNACZ P N	87	KAMALOV V F	36	KHIZHNYAK S M	14
IGNATKOV V D	57	KAMENCHUK A I	20	KHIZHNYAKOV V	26
IGNATOV A V	59	KAMENCHUK N V	20	KHODATAYEV K V	88
IGNAT'YEV S V	38	KANAVIN A P	86	KHOKONOV KH B	90
IGNAT'YEV V G	31	KANAYEV A V	15	KHOLBAYEV A	87
IGOSHIN V I	80	KANDAUROV A S	2	KHOLODNYKH A I	22
IKRAMOV G I	90	KANDIDOV V P	48	KHOMA M M	48
IL'IN A I	80	KAPAYEV V V	86	KHOMCHIK L M	35
IL'IN N A	14	KAPENIYEKS A E	26	KHOMICH A V	67
IL'INSKAYA N D	4	KAPITSKIY YU YE	31	KHOROSHILOVA YE V	56
IL'INSKAYA T A	62	KAPLUN M G	63	KHRISTOV KH G	15
IL'YUSHKO V G	8	KAPTSOV L N	22	KHRYASHCHEV L YU	17,46
IMAS YA A	82	KAPUSTA O I	70	KHRYASHCHEVA A V	17
IONIN A A	12	KARABAN' V I	83	KIM I S	20
IRIMESCU D	25,29	KARABUT E K	8	KIMEL'FEL'D YA M	71
IRISOVA K N	77	KARABUTOV A A	32,57	KIPSHAKBAYEV A I	11
IRODOV YE I	10	KARAMALIYEV R A	45	KIRILLOV V I	40
ISAYEV A A	13,81	KARAMAN YE N	37	KIRILLOV YU F	56
ISAYEV V I	21,22	KARASEV A V	13	KIRIYENKO G A	47,92
ISHCHENKO YE F	57	KARASIK A YA	33	KIRKIN A N	69
ISMAILOV I	4	KARAVANSKIY V A	39	KIRKOV V I	83
ISPIRYAN K A	25	KARFIDOV D M	87	KIRYUKHIN YU B	14
IVANCHENKO A I	10	KARKASHADZE D D	58	KISELEV D F	90
IVANENKO M M	11,73	KARLOV N V	88	KISELEV S N	40
IVANENKO S G	86	KARNAUKHOV YE N	76	KISELEV V A	41
IVANOV A P	44	KARPENKO A N	81	KISELEV V M	12
IVANOV A V	22,29,53	KARPOV A V	60	KISH G	78
IVANOV E I	73	KARPOV S YU	3	KISHKURNO N A	6
IVANOV L I	83	KARPUKHINA L I	36	KISS G	78
IVANOV M B	21	KARTALEVA ST S	9	KITAYEVA V F	68
IVANOV V S	16	KARTHE W	23	KITYK I V	53
IVANOV V V	43,74	KARU T Y	36	KIYACHENKO YU F	60
IVANOV YE K	47	KARUZSKIY A L	80	KIYAK S G	85
IVANOV YU L	3	KASHCHEYEVA G A	64	KLEMENT'YEV V G	57
IVANOV-OMSKIY V I	66	KASHKAROV P K	68	KLEYMAN I S	50
IVANOVA L N	36	KASHPAROV V A	88	KLIBANOV M V	46
IVANOVA N A	26	KASPRZAK H	55	KLIGER G A	71
IVANOVA YE A	42	KAS'YAN V G	13	KLIM B P	61
IVASHCHENKO M I	45	KATARKEVICH V M	33	KLIMASHINA A G	7
IVASHKIN P I	5	KATSAUROV L N	85	KLIMENKO I S	61
IVCHENKO YE L	31	KATSAVETS N I	23	KLIMIN S A	70
IVLEV V I	50	KATUSHKINA N V	60	KLIMKIN V F	61
IWANEJKO L	10	KAUL' B V	47,92	KLIMKOV YU M	57
IZOTOV A N	31	KAZAK N S	7	KLIMOV S A	54
IZYUMOV S V	11	KAZAKOV A YA	64	KLIMZO E F	52
		KAZAKOV S A	13	KLIOT-DASHINSKAYA I M	52
JANKIEWICZ Z	2	KAZAKOV V V	13	KLITZKE K	41
JANOSSY M	10	KAZANSKIY P G	40	KLOCHKOV V P	22,45,47,61
JANULEWICZ K	10	KAZANTSEV A P	25,67		64,74,90
JAWORSKI K	10	KAZARYAN M A	28,58,81	KLOKISHNER S I	1
JELINKOVA H	80	KAZARYAN R A	90	KNYAZ'KOV A V	22,53,54
JEMIN W I	38	KAZILIN YE YE	83	KOCH E O	21
JEROMINEK H	40	KEDA C A	1	KOCHANOV V F	29
		KELOGIU O YU	71	KOCHELAP V A	15,16,26
KABANOV I S	26	KERIMOV A A	40	KOCHETOV I V	11,14
KABANOVA V G	26	KERIMOV O I	14	KOEFRE CZ	6
KABELKA V	7,30,48,78	KERIMOV O M	12	KOGAN M N	82

KOKHANENKO G P	48	KOTOVA S P	51	KUDRYASHOVA G S	75
KOKHANOVSKIY S A	70	KOTOWSKI T	6	KUKHTAREV N V	69
KOLBENKOV V A	47	KOTSARENKO N YA	32	KUKUSHKIN V G	6
KOL'CHENKO A P	12	KOVAL'CHUK YU V	4	KULAGIN O V	50
KOLESNIK A S	32	KOVALENKO S A	74	KULAK G V	32
KOLESNIK A V	83	KOVALENKO S YE	15	KULAKOV M P	86
KOLESOV G V	57,60	KOVALENKO V F	66	KULAKOV YE V	37
KOLIKOV V M	60	KOVALEV A A	6	KULAKSUZOV P I	18
KOLIN'KO V G	65	KOVALEV A S	87	KULIKOV S M	35
KOLOBANOV V N	53	KOVALYUK Z D	25	KULIPANOV G N	81
KOLOBASHKIN V M	88	KOVARSKIY V A	68,71	KULISH N R	57
KOLOBRODOV V G	74	KOVSH I B	11	KUL'MINSKIY A M	44
KOLOMIYETS B T	59	KOVTONYUK N F	38	KULYAK I P	37
KOLOSHNIKOV V G	72,75	KOVTUN A V	72	KUMYKOV KH K	49
KOLPAKOVA I V	18	KOZACHOK A G	91	KUNDZIN'SH M A	26,27,42
KOL'TSOV I M	62	KOZHEVNIKOV I V	21	KUPRIYANOVA YE B	87
KOLYADIN A I	60	KOZICH V P	2	KURAMATOV D	87
KONDRASHOV V N	88	KOZIN G I	45	KURATEV I I	1, 5
KONIN K P	67	KOZINTSEV V I	47	KURBATOV V A	85
KONONOV N N	88	KOZLOV G I	16	KURITSYN YU A	75
KONONOV V A	1	KOZLOV L F	45,47,61,90	KURKHULI G V	60
KONOPEL'KO L A	47	KOZLOV N A	73	KURSAKOVA A M	52
KONOPLEV YU N	20	KOZLOVA N V	75	KURSKIY A N	71
KONOV A S	37	KOZLOVSKIY V I	64	KURZYNSKI Z	10
KONOV V I	21,81,82,83,86	KRAMAR V K	53	KUTLIN A P	45
KONOVALOV I P	45	KRAPOSHIN V S	80	KUYBIDA L V	74
KONSTANTINOV V B	60	KRASHENINNIKOV V V	10	KUZIN YE F	67
KONVISAR P G	2	KRASIK YA YE	87	KUZ'MIN G P	88
KONYAYEV P A	47	KRASILOV YU I	1	KUZ'MIN V S	26
KOPTYAYEV A F	77	KRASNOPEVTSEV V V	85	KUZ'MIN V V	12
KOPVILLEM U KH	90	KRASNOPROSHINA A A	41	KUZ'MIN YU YE	14
KOPYLOV V B	84	KRASNOVOBODTSEV S I	80	KUZ'MINA T I	57
KOPYTIN YU D	47	KRASYUK I K	51	KUZNETSOV A V	38
KORBUTYAK D V	68	KRASYUKOV YU N	77	KUZNETSOV I V	79
KORCHAZHKIN S B	89	KRAVCHENKO A V	60	KUZNETSOV N T	1
KORCHAZHKIN V V	90	KRAVCHENKO V B	43	KUZNETSOV V M	26
KORCHIKOV S D	49	KRAVCHENKO V F	8	KUZNETSOV V P	47,92
KOREN' N N	59	KRAVCHUK A L	5	KVACH V B	71
KORESHEVA YE R	88	KRAVTSOV S B	89	KVACH V V	2
KORMER S B	35	KRAWCZACK L	41	KVERNADZE A M	60
KORNEYEV A A	26	KRAWCZAK L	41	KVITEK J	80
KORNEYEV K K	83	KRAYSKIY A V	51,72,75	LAMEKIN V F	39
KORNEYEV V I	41	KRAYUSHKIN I YE	14	LANDA K A	5
KORNEYEVA N T	36	KREMENCHUGSKIY L S	26	LANDA P S	22
KORNILOV S T	11	KRESTININ V V	9	LANIN S N	59
KORNIYENKO N YE	29	KREYCHI V	11	LAN'KOVA S M	23
KOROBAYNICHIEV O P	74	KRIVOSHCHEKOV V A	31	LAPSHIN V I	21
KOROBAYNIK G S	74	KRIVOSHLYKOV S G	41	LAPTEV S A	14
KOROL'KOV M V	34	KRIVTSUN V M	75	LAPTEV V B	56
KOROL'KOV V I	37	KROO N	68,78	LAPTEV V V	1
KORONKEVICH V P	91	KROTKUS A I	58	LAPUTINA O D	59
KOROSTELIN YU V	64	KRUGLIK G S	75	LARIONOV N P	62
KOROTAYEV O N	74	KRUMIN' A E	54,55	LARIONOV V V	45
KOROTEYEV N I	70	KRUPKIN V KH	56	LARKIN A I	59
KOROTKOV V I	50	KRUTIKOV V A	48	LASHKEVICH YE G	68
KORSAKOVA YE G	74	KRUTOVA L V	40	LATUKHIN D V	63
KORSUNSKAYA N YE	58,86	KRUTYAKOVA V P	80	LATYSHEV S V	89
KORTOV V S	1	KRUZEVICH YU K	62	LAVROV A P	65
KORYAKOVSKIY A S	14	KRUZHAILOV S V	16,75	LAZAREV V V	2
KORYAKOVTSSEV V S	51	KRYLOV I R	73	LE TRONG MUU	10
KORYUKIN E M	77	KRYLOV M S	84	LEBEDEV F V	80,88
KORZHENEVICH I M	60	KRYLOV V N	30	LEBEDEV M V	75
KOSENKO YE K	31	KRYLOVA D D	34	LEBEDEV N F	38
KOSICHKIN YU V	78	KRYLOVA I	41	LEBEDEV V B	60
KOSOV V M	82	KRYMOVA A I	6	LEBEDEV V I	1
KOSSY I A	17	KRYUCHKOV G YU	68	LEBO I G	87
KOSTRITSA S A	14	KRYUKOV P G	15	LEDNEVA G P	62
KOSTYSHIN M T	53	KUBICKI J	10	LEIDENBERGER G	41
KOSTYUKEVICH A YE	22	KUCHERENKO O K	20	LEMESHKO B D	67
KOTLIKOV YE N	17,46,74	KUCHINSKIY V I	4	LEONAS V B	68
KOTLYAR V V	46	KUCHUK ZH S	33	LEONOV V N	21
KOTLYAROV A A	88	KUDIM T V	37	LEONOV YE I	23
KOTOV B V	23	KUDRYASHOV O V	40		



LEONOV YU S	43	MARKHOV V N	53	MIGACHEV S A	49
LEONT'YEV I A	10,46	MAKIN V S	82	MIHAILESCU I N	83
LEONYUK L I	33	MAKUSHKIN YU S	79	MIKHALEVSKIY V S	8
LEONYUK N I	33	MALAMA YU G	89	MIKHAYLIN V V	53
LETOKHOV V S	36,66,71	MALEVICH N A	2	MIKHAYLOV A B	28
LEVITINA E I	21	MALIKOV M M	13	MIKHAYLOV G V	3
LEVSHIN L V	90	MALINOWSKI M	5	MIKHAYLOV M M	68
LEZHININ V P	87	MALISCO L	80	MIKHAYLOV V I	77
LIBENSON M N	82	MALKOV A N	89	MIKHAYLOV V P	6
LIBERTS G V	26,27	MAL'TSEV D V	72	MIKHAYLOVA M P	37
LICHKOVA N V	71	MAL'TSEV M G	52	MIKHEYENKOVA R R	79
LIKHANSKIY V V	17	MALYAVKIN L P	29	MIKHEYEV L D	15
LINNIK L F	67	MALYGIN A A	29	MIKHOV S A	1
LINNIK L G	67	MALYUKIN YU V	65	MIKLAVSKAYA YE M	7
LIPATNIKOV S I	63	MALYUTENKO V K	22	MILITSYN YU A	14
LIPOVSKAYA M YU	58	MAMAYEV A V	31	MILOSLAVSKIY V K	66,82
LIPPENYI T	20,36	MAMAYEV YU A	20	MILOVZOROV O V	59
LIPUGA A I	22	MAMEDOV A K	42	MILYAUSKAS A	48,78
LISITSA M P	27,28	MAMYSHEV P V	33	MILYUTIN YE R	90
LITOVCHENKO V G	68	MANAK I S	2	MINAYEV YU P	84
LITVINOV YU I	60	MANISHIN V G	50	MINDAK M	2
LITVINOV YU M	81	MANOSHKIN YU V	9	MINENKOV A A	36
LIVSHITS M G	12	MARCHENKO V G	16	MINOGIN V G	66,71
LOBANOV M N	54	MARCHENKO V M	14	MIRONOV A V	19
LOBASHEV V M	70	MARCHENKO V S	89	MIRONOV S G	8
LOGAK L G	63	MARCZAK J	57	MIRONOV V L	46,50
LOGIN M A	42	MARGOLIN A D	27	MIROVITSKAYA S D	44
LOKTEV S M	71	MARINCIC A	3	MIRZAYEV A T	65
LOMAKIN G S	61	MARKIN A S	17	MISHACHEV V I	43
LOMANOV V G	40	MARKOV B N	73	MISHIN A V	5
LOMTEV A I	25	MARKOV V B	54	MISHINA YE D	28
LOPINA S V	65	MARKOV YU F	73	MISHNAYEVSKIY P A	38
LOPASOV V P	79	MARTHON P	58	MITROPOL'SKIY O V	32,50
LOSEV G M	40	MARTIROSOV V A	72	MITYAKOV V G	21
LOSEV V F	15	MARTYNOV I YU	79	MITYKO G	18
LOSHIN A F	73	MARTYNOV V YE	43	MITYURICH G S	32
LOTKOVA E N	11	MARTYNOVA T A	41	MKHEIDZE G P	35,58
LOTOV V V	74	MARTYNOVICH YE F	1,76	MNATSAKANYAN A O	66
LOYKO L S	6	MARUSIN V D	9	MNATSAKANYAN E A	51
LOYKO V A	44	MARUSIY T YA	62	MNUSKIN V YE	7
LOZA O T	58	MARYUKOV M A	42	MOCHALOV I V	30
LOZOVENKO A YE	31	MASCHKOWITZ F	42	MOENCH H	18
LUCHIN V I	86	MASHCHENKO A I	59	MOGIL'NITSKIY S B	45
LUCHT H	6	MASLENNIKOV V L	79	MOIN M D	86
LUCKNER H	57	MASYCHEV V I	11	MOISEYENKO N G	81
LUEMKEMANN B	18	MATSKO M G	67	MOKINA I A	4
LUGINA A S	7	MATSONASHVILI R B	65,89	MOLODYAN I P	21
LUKASHENKO S V	72	MATVEYENKO I D	78	MOLOTKOV I A	27
LUKASHENKO V I	76	MATVEYEV B A	19	MOLOTKOV N YA	50
LUKIN V P	47,50	MATVIYENKO V M	87	MONICH N V	6
LUKOMSKIY V P	67	MATYUGIN YU A	56	MONTANARI S G	74
LUK'YANCHUK B S	82	MAURER I A	60	MORICHEV I YE	23
LUK'YANENKO S F	79	MAVRIN B N	73	MOROZOV A V	14
LUTSENKO A P	14	MAYOROV A P	25	MOROZOV V A	64
L'VOV K M	66	MAYOROV S A	20	MOROZOV N	39
LYADZHIN V A	47,92	MAYOROV V S	80	MOROZOVA M M	47
LYAKHOV G A	7	MAYYER A A	1,33	MOROZOVA YE A	23
LYAPLIN YU A	52	MAZHUKIN V I	83	MORSHNEV S K	42
LYAPTSEV A V	27	MAZURENKO S N	81	MOSKALENKO A I	59
LYSENKO V G	75	MAZURENKO YU T	54	MOSKALEV A N	46
LYSIKOV YU I	49	MEDINSKAYA L N	63	MOSKALEVA M A	79
LYTKIN A P	12	MEDNIKOV V A	42	MOSKVICHEVA I YU	89
LYUBCHENKO F N	8	MEDVEDEV V S	62	MOSTOVNIKOV V A	2,36
LYUBIMOV V V	16,23	MEDVEDEVA L L	36	MOTYUNAS R	48
LYUBIN V M	59	MEKHTIYEV A SH	66	MOZHAROVSKIY	69
LYUTSKANOV V L	15	MELEDIN V G	56	MOZOL' M YE	76
		MELEKHIN G V	89	MUELLER H U	57
MACHAVARIANI S Z	58	MELISHCHUK M V	32	MUELLER R	39
MAGUNOV A N	17	MEL'NIKOV I F	40	MUGENSKI E	68
MAJEWski W	6	MEL'NIKOV L YU	15,16	MUKHA V V	17
MAKAREVICH I P	64	MEL'NIKOV N A	31	MUKHIN L M	47
MAKAREVICH R N	40	MERKER W	22,38	MUKHINA T I	60
MAKAROV V N	2	MESYATS G A	8	MUKHTAROV E I	77

MURAVITSKIY M I	31	NOVODEREZHIN V I	10	PAVLENKO V K	7
MURAV'YEV V V	87	NOWAK J	54	PAVLOV S V	79
MUSHINSKIY V P	91	NOWAK R	63	PAVLOV V I	50
MYACHIN V YE	4	NOWAK W	42	PAVLYUK A A	30
MYAGCHENKO YU A	62	NOWICK W	66	PECHENOVA O I	14
MYAKOV V N	37	NOWICKI R	76	PEKA G P	66
MYL'NIKOV V S	23	NURGALIYEV K	85	PEKAREK L	11
MYSHALOV P I	2	NURYAGDYEV O	58	PELEVIN V N	46,48
MYSHETSKAYA YE YE	87			PELIPENKO V P	18
MYZNIKOV YU F	12	OBRAZTSOV YU V	75	PENIN A N	29
		OBUKHOV A S	63	PENIN N A	85
NABOYKIN YU V	65	OCHIN YE F	20	PENIN S T	47
NADENENKO A V	7	ODARICH V A	85	PENKIN N P	67
NADEZHDIINSKIY A I	78	ODINTSOV A YU	32	PENTEGOVA L I	48
NADKHIN A I	15	ODINTSOV V I	50	PERCAK H	57
NADZHAKOV E G	73	ODZAJEV V	80	PERCHUK O V	74
NAGAYEVA M L	67	OGANESYAN A V	90	PEREL'MAN N F	24
NAGIBINA I M	62,91	OGANESYAN V A	66	PERGAMENT A KH	50,87
NANAI L	80	OGANESYAN YU	73	PERINOVA V	50
NANU L	83	OKHRIMENKO B A	32	PERLIN YU YE	70
NAPARTOVICH A P	11,17	OLEYNIKOV A D	18	PERLINSKI L	10
NASEL'SKIY S P	5	OMANCHUKOVSKAYA I V	85	PERMINOV N I	75
NASONOV N N	44	OMAROV T B	92	PERMOGOROV S A	64
NATAROVSKIY S N	19	OMEL'CHUK N N	32	PEROV P I	67
NATSVLISHVILI A G	58	ONHEISER P	80	PERSHAKOV V V	18
NAULIK L R	32	OPEKAN A G	75	PERSONOV R I	69
NAUMENKO N A	10	OPILSKI Z	40	PERVAK YU A	20
NAUMOV A P	62	ORLAMUENDER U	21	PERVOMAYSKIY V A	62
NAUMOV K P	32	ORLOV S V	20	PERZINA I	50
NAUMOV V S	37	ORLOV S YU	23	PESTRYAKOVA G A	83
NAZAROV V V	75	ORLOVICH V A	2,71	PETNIKOV A YE	52
NEDBAY A I	64	OSADCHIYEV V M	26	PETRASCU H	12
NEDBAYEV N YA	23	OSELEDCHIK YU S	17,27,29	PETRASH G G	13,28,58,81
NEDEL'KO S G	85	OSHEMKOV S V	72,76	PETRENKO R A	23
NEDRANETS YU I	42	OSIKO V V	1	PETROSYAN K B	33
NEFEDOV B K	77	OSTROVSKIY V A	67	PETROV A A	72,76
NEFED'YEV L A	50,54	OSVENSKIY V B	67	PETROV A V	68,87
NEKRASOV L P	22	OVCHAROV YE I	38	PETROV M P	29
NEKRASOV YU V	9	OVCHINNIKOV A A	35	PETROV M V	1
NEL'SON D K	3	OVCHINNIKOV A V	4	PETROV N I	41
NEMCHINOV I V	45	OVECHKO V S	27	PETROV N S	27
NEMILOV S V	81	OVILKO O G	37	PETROV V A	84
NEMTINOV V B	54	OVSEPYAN R K	54	PETROVICH V I	63
NENCHEV M N	16	OVVYAN P P	38	PETROVSKIY G T	5,30,80
NEOFITNYY M V	51	OZHOVAN M I	35		84,90
NERISYAN S TS	24			PETRUN'KIN V	75
NESTEROV N I	36	PADUN N G	62	PETRUN'KIN V YU	16
NESTEROV V V	62	PADURETS G I	43	PETRYAKOV V M	89
NESTEROVA Z V	62	PAETZOLD H	76	PETTSOL'D G	76
NEUDACHIN A V	56	PAK I	75	PETUKH M L	89
NEULEIB H	63	PAK N I	83	PETUKHOV V A	6
NICAYEV YE V	85	PAKHOMOV L N	16,75	PEVTSOV A B	76
NIKIFOROV V G	7,73	PALME M	63	PEYEVA R	24
NIKISHIN S A	3	PANAYOTOV K	24	PEYEVA R A	24
NIKITIN A K	70	PANAYOTOV K P	24	PHAM GIA MON	76
NIKITIN P I	86	PANCHENKO V YE	81	PICHUGIN S YU	80
NIKOLAYEV G N	34	PANCHUK O E	85	PIELES H	63
NIKOLAYEV I V	29	PANFILOV A G	3	PIGUL'SKIY S V	13
NIKOLAYEV YE P	63	PANFILOVA YE YE	64	PIKUS YU G	77
NIKOLAYEVA R I	36	PANIN V F	43	PHLIPETSKIY N F	31
NIKOLAYEV N V	5,80	PANOV V P	45	PIROGOVA I YU	29
NIKOLAYEV S T	39	PANOVA YE YU	46	PISKAREV M G	14
NIL'YEV V	47	PARAMONOV A A	53	PISKARSKAS A	2
NISIP L G	83	PARFENOV V A	16,75	PIS'MENNY V D	80
NITTE B	58	PARFENOV V G	81	PITATELEV G V	76
NIVIN A B	4	PAROL N	39	PLATONENKO V T	57
NIZOVITIN V V	59	PARSHKOV O M	34	PLATONOV YE M	55
NIZOVITIN P	42	PASHININ P P	35,51	PLATOV YU M	83
NOVAR M	11	PASMANIK G A	90	PLAVSKIY V YU	36
NOVAR O R	28	PATEK M	16	PRESHAKOV I V	29
NOVAK V M A	20,32,58,76	PATON P YE	91	PRESHAKOVA R I	89
NOVITSKIY T F	9	PAUGERT A P	29	PLETNEV V A	29
NOVITSKIY V I	14,32,58,76	PAUL H	45	PLETNEVA N I	29

PLETYUSHKIN A A	66	PYATAKHIN V I	40	RULEVA S S	58
PLINSKI E F	21,76	PYNDYK A M	69	RUMYANTSEV V D	84
PLOTNICHENKO V G	38			RUSOV V A	47
PLYATSKO G V	65,85	RABA O B	70	RUSTAMOV S R	2
PLYATSKO S V	68	RACZ B	6	RUTKIN O G	40,43
POCHAPSKIY YE P	61	RADAYEV V N	71	RUZICKOVA A	35
PODOBEDOV V B	73	RADCHENKO YE D	77	RYABENKO G A	67
PODOLEANU A GH	9	RADLOFF V	68	RYABOV A I	5
PODOL'SKIY B S	66	RADLOFF W	68	RYABOV S YE	16
PODPALYY YE A	54	RAGIMOV S E	36	RYABOV YE A	56
POGOSYAN K P	90	RAKHIMOV A T	87	RYABUKHO V P	61
POGREBNIYAK A D	81	RAKITIN S V	81	RYAZANOV A V	80,88
POKHSRARYAN K M	33	RAL'CHENKO V G	21,82	RYAZANOV N S	79
POKORA L	12,88	RASCH A	23	RYAZANOVA N D	86
POKROVSKIY V P	23	RASTOSKUYEV V V	47	RYBKA V	80
POLISHCHUK I YA	13	RATSEYEV S A	85	RYLOV G YE	90
POLISHCHUK S V	57	RAUTIAN S G	91	RYSAKOV V M	50
POLOGRUDOV V V	76	RAYKHMAN B A	80	RYZHKOVS S S	63
POLTORATSKIY E A	37	RAZABIRIN B S	3	RYZHKOVS YE G	46
POLTORATSKIY V A	55	RAZENSHTSEYN P S	51		
POLYAKOV A A	85	RAZVALYAYEV V N	29	SAAVEDRA F	42
POLYAKOV YE V	59	REBANE K K	77	SABOTINOV N V	13
PONOMAR' V V	37	REBANE L A	77	SACHKOV V I	59
PONOMARENKO A G	10	RED'KO T P	67	SAFONOV A N	80
PONOMAREV I V	13	REINHOLD B	36	SAFRONOV YE K	2
PONOMAREV YU N	49,79	REJTO K	36	SAGDEYEV R Z	21
PONYAVINA A N	45	REKHARSKIY V I	47	SAGITOV S I	78
POPEL' A M	69	RENCH S	77	SAKHNO S P	74
POPESCU GH	9	RENSCHEN C	37	SALISTRA G I	19
POPESCU I M	25,29	RENTSCH S	77	SALIVON G I	71
POPOV A M	87	RESHETNYAK V YU	62	SAL'KOV YE A	67
POPOV I I	27	REZNIKOV YU A	62	SAL'NIKOV YU V	62
POPOV M B	6	REZNITSKIY A N	64	SALOMONOVICH A YE	21
POPOV YE G	83	RIESE B	19,22,38	SAMARSKIY A A	87
POPOVA M N	70	RIMKLYAVICHYUS R	48	SAMARTSEV V V	27,65
POPUHOV V V	21	RINKEVICHYUS B S	63,65	SAMGINA T YU	77
POROSHINA M YU	65	RISTICI M	9	SAMOKHVALOV I V	47,91
PORTNOY G YA	85	RITTSE G G	68	SAMOKHVALOV K P	92
PORTNOY YE L	3	RITZE H H	68	SANNIKOV YU A	7
PORTNOY YE L	4	RIZAKHANOV M A	56	SAPONDZHYAN S O	2
POSTNOV A I	59	RODIONOV I D	68	SARDARLY R M	70
POTAPOV M M	66	RODIONOV N B	88	SARDYKO V I	16,19,20,62,63
POTAPOV YU A	21	RODIONOV N T	36	SARKISYAN D G	2
POTEKHIN A O	45	RODIONOV V N	66	SARKISYAN S S	86
POTEMKIN A V	1	ROGACHEVA L F	50	SARYCHEV A G	42
POTYKEVICH TS V	22,90	ROGOVTSEV P N	84	SATTAROV D K	43
POZDNYAKOV S G	26	ROMANCHENKO P M	43	SAVATINOVA I	73
POZHAR V E	32,33	ROMANENKO A V	82	SAVEL'YEV B A	45
PRAKHOV M S	48	ROMANENKO P F	53	SAVIN A A	35,58
PRANTS S V	90	ROMANOV G P	38	SAVIN A I	38
PRAVEDNIKOV A N	23	ROSS W	8	SAVINTSEVA L A	81
PRAVILOV A M	15,16	ROTSCHALK M	23	SAVITSKIY G V	85
PREOBRAZHENSKIY N G	72	ROZANOV V B	87	SAYKIN A S	53
PRIKHOT'KO A F	77	ROZANOV V B	87,89	SAYKO A P	26
PRILEPSKIKH V D	17	ROZENBERGS YA A	63	SCHIRMER G	21
PRIVALOV V YE	57	ROZHKOVS B K	53	SCHMIDT E	21
PRIYEZZHEV A V	65	ROZMAN M	26	SCHROETER B	39
PRODUVNOV A B	12	ROZNIAKOWSKI K	49	SCHURIG T	57
PROGNJMAR A B	49	ROZOV B S	62	SEBYSKIN YU N	66
PROKHORENKO V I	32	ROZSA K	10	SEDOVA A D	62
PROKHOROV A M	14,21,33,34	RUBANOV A S	26	SEGLIN'SH YA A	42,54,55,63
	38,39,40	RUBANOV V S	26	SEKOWSKI B	18
	79,81,82	RUBINOV A N	6,7,33,77	SEL'KIN A V	76
	83,86,89	RUBTSOVA N N	78	SEMAK D G	69
	11,45	RUDENKO O V	32	SEMENOV A B	43
PROTSENKO YE D	51	RUD'KO G YU	27	SEMENOV A S	39
PRZHEVSKIY	38	RUDNITSKIY A L	74	SEMENOV A T	59
PSHENTSOV YU A	82	RUDOY I G	31	SEMENOV O G	43
PUDKOV S D	25,29	RUDSKOY I V	89	SEMENOV V L	46
PUSCAS N N	38	RUECKMANN I	69	SEMENOV YE P	35
PUSHKIN A A	32,33	RUGOY I G	12	SEMENTSOV S S	52
PUSTOVOYT V I	52	RUKA M YA	36	SEMEROK A F	53
PUTILIN A N	11	RUKMAN G I	77	SEMIBALAMUT V M	71
PUTILIN V M					

SEMIDALOV S YU	77	SHTERT V	68	SNYTSEREV V V	16
SEMIOSHKO V N	67	SHTEYNASHRAYBER V YA	70	SOBEK W	83
SENCHILO A G	4	SHTIRAND O	11	SOBIROV M M	31
SENTIRMAY ZH	78	SHTYKHNO V V	20	SOBOLEV A G	78
SERBEZOV B S	18	SHUL'GIN B V	1	SOBOLEV I A	35
SERGEYCHEV K F	87	SHULYAT'YEV V B	57	SOBOLEV N N	11,68
SERGIYENKO A V	29	SHUMSKIY S A	87	SOBOLEV S S	89
SERGOYAN G M	87	SHUR V V	36	SOBOLEV V S	64
SERIKOV V V	40	SHUVALOV V V	45	SOBOLEVA YE M	78
SERKIN V N	33,39	SIBEL'DIN N N	69	SOBOLEWSKI A	76
SEROV R V	35	SIDORENKO V I	27	SOGORIN A V	43
SEVERIKOV V N	26	SIDORENKO YU P	62	SOKOLOV I A	4
SHABALIN V V	73	SIDORIN A V	84	SOKOLOV V A	8
SHABANOV V F	91	SIDOROV A I	71	SOKOLOV V E	14
SHABUNYA S I	56	SIDOROV I I	15	SOKOLOV V I	88
SHAGIDULLIN A G	27	SIDOROV N V	77	SOKOLOV V N	26
SHAGOV A A	75	SIEJCA A	10	SOLDAK G V	30
SHAKHNAZARYAN N V	66	SIKORSKI Z	10	SOLIKHOV D K	25
SHAKIN V A	27	SILAKOV V P	17	SOLODUKHA A M	84
SHALIMOVA K V	92	SILAYEVA N B	65	SOLOMONO A A	81
SHAMARIN YU YE	83	SILENKO A S	86	SOLOMONOV YU F	69
SHAMUKHAMEDOV SH SH	84	SILIN I V	58	SOLOTOV S I	78
SHANDYBINA G D	82	SILIN V P	31	SOLOUKHIN R I	14
SHANSKIY L I	77	SILKINA T G	34	SOLOV'YEV N A	28
SHAPAREV N YA	69	SIL'KIS E G	29	SOLOV'YEVA N N	2
SHAPIRO D A	89	SIL'NITSKIY A F	47	SOMS L N	23
SHAPKIN P V	39	SIL'VANOVICH N I	45	SONNEFELD D	36
SHARAKHIMOV M SH	65	SIMAKOV S V	83	SORLEI ZS	87
SHARANGOVICH S N	32	SINEL'NIKOV V P	10,46	SOROCHENKO V P	86
SHARGORODSKIY A G	36	SINEV S N	28	SOROKA A M	12,31
SHARKOV A V	81	SINYAVSKIY D V	3	SOROKIN YU M	64
SHAYAKHOV R F	65	SINYAVSKIY E P	71	SOSKIN M S	64,90
SHCHEBUNYAYEV A G	37	SISAKYAN I N	41	SOSNOVSKIY A T	36
SHCHEKOTIKHIN O V	43	SITNIK D N	62	SOTNICHENKO S A	15
SHCHENNIKOV M I	52	SITNIKOV L L	63	SPICKERMANN G	18
SHCHEPKIN D N	72	SITNIKOV S F	88	SPIRIDONOV V A	89
SHCHERBAKOV I V	30	SITNIKOV V P	36	SRAPIONOV V A	43
SHELEMIN YE B	77	SIUZDAK J	48	STABINIS A	30
SHELUKHIN G G	14	SIYUCHENKO O G	1	STADNIK V A	25
SHEPELENKO A A	10,57	SIZOV F F	68	STANCHEVA V	44
SHEPOT'KO A D	43	SKAKUN V S	8	STANKEVICH T F	54
SHERMERGOR T D	41	SKIBINA N B	38	STARODUBTSEV A I	13
SHESTAKOV A V	1, 5	SKOROKHODOV V A	15	STASEL'KO D I	30,52,55
SHESTOPALOV V P	17	SKOROD'KO S N	13	STASYUK I V	69
SHEVCHENKO A L	13	SKRIPACHEV I V	38	STEFANOV V Y	9
SHEVCHENKO V V	18	SKRIPKIN A M	48	STEMKOVSKIY A I	48
SHEVELEVICH R S	31	SKRIPKO G A	75	STEPANOV B M	60
SHEVTSOV V M	37	SKUBISZAK W	6	STEPANOV S A	39
SHEVYAKOV N A	51	SLAVENAS YU YU	7	STEPANOV V A	89
SHIKANOV A YE	89	SLAVNIN M G	20	STEPANOV V I	58
SHILO V P	59	SLIVKA V YU	48	STEPANOV YE V	78
SHIPOV P M	51	SLOBODNYUK A V	62	STEPANOV YU I	21
SHIPUNOV V A	38	SMAKOVSKIY YU B	11	STEPANOVA N V	36
SHIRKOV A V	21	SMELOV V S	54	STEPURA V I	43
SHISHAYEV A V	29	SMELYAKOV L V	58	STERIAN P E	9,25,29
SHISHKOV V F	54	SMIRENKINA I I	72	STERIN KH YE	73
SHKADAREVICH A P	5,75	SMIRNITSKIY V B	4,19	STERLIGOV V A	4
SHKAPA A F	35	SMIRNOV L S	85	STERT V	68
SHKLOVSKIY YE I	51	SMIRNOV M Z	65	STOHN I	63
SHKUNOV V V	31,55	SMIRNOV V A	25	STOICA M	83
SHMAGIN YU I	84	SMIRNOV V G	8	STOLYARCHUK S YU	46
SHMELEV V M	27	SMIRNOV V I	43	STRAUCH B	78
SHOKHUDZHAYEV N	4	SMIRNOV V N	80	STROKIN M V	37
SHOLOKH V F	44	SMIRNOV V S	7	STUDENOV V B	17
SHORIN V P	63	SMIRNOV YE A	57	STUDENOV V I	7
SHOTOV A P	75,78	SMIRNOVA A S	19,37	STUS' N M	19
SHPAK A M	27	SMIRNOVA S A	76	STYS L YE	69
SHPAK L P	87	SMIRONOV V L	39	SUBASHIYEV V K	24
SHPIL'RAYN E E	13	SMOLENSKIY G A	40	SUCHKOV A F	10,71
SHTALENKOV N F	60	SMOLINSKA B	51	SUD'YENKOV YU V	64
SHTANCHAYEV M I	21	SNEGIREV YE P	75	SUKHANOV V I	52
SHTERN E K	77	SNITKO O V	4	SUKHAREV S A	35
SHTERNBERG A R	92	SNOPKO V N	57	SUKHAREVA L K	70

SUKHOIVANOV I A	43	TILCH J	76	UDAL'TSOV B V	9
SUKHOROSOV S YU	11	TIL'KH I	76	UFIMTSEVA R N	77
SUKHORUKOV A P	29,68	TIMCHENKO B A	56	UGLOV A A	83
SULTANOV T T	51,72	TIMOFEYEV T T	20,86	UJDA Z	88
SULTANOVA N	55	TIMOFEYEV V D	71	ULITSKIY N I	69
SUMETSKIY M YU	45	TIMOFEYEV YE M	35	UMANETS A G	76
SUMINOV I V	81	TIMOKHIN A A	77	URBANKOVA G	11
SUMINOV V M	64	TIMOV V D	29	URIN B M	11
SURAZYNSKI L	43	TISHCHENKO A YU	78	URSAKI V V	85
SURDUTOVICH G I	67	TISHKIN V P	87	URSU I	83
SURSKIY K O	72	TITOV YE A	71	USENKO V P	23
SUSHCHINSKIY M M	70,73	TKACHENKO A P	40	USKOV A V	78
SUTORSHIN V N	63	TKACHUK A M	1	USKOV V I	1
SUVOROV A YE	72	TKACHUK G B	44	UTKIN K G	22
SVELOKUZOV A YE	4	TLEUZHANOV A B	14	UTOCHKIN K P	47,92
SVET V D	53	TODOROV T V	18	UVAKINA V F	20
SVIRGUN V P	27	TOKAREV A G	1	UVAROVA N N	5
SVIRIDENKOV E A	71	TOKAREV O D	47,92		
SVIRIDOV A P	56	TOKAREVA A N	7	VAGIN N P	15
SVIRIDOV S A	48	TOLKACHEV A V	63	VAKAROV B S	69
SVIRINA L P	26	TOLKACHEV V A	6	VAKHNENKO A A	28
SVIRKO YU P	7	TOLOK V A	27	VAKULENKO S A	27
SYCHUGOV V A	79	TOLSTIK A L	26	VALAKH M YA	27
SYRBU A V	21	TOLSTOROZHEV G B	78	VALIYEV K A	38
SYRBU N N	76	TOMA D	58	VALYUKHOV A A	75
SYRKINA M L	84	TOMIN V I	77	VANIN V A	55
SYRUS V	30	TOMM J W	78	VANYUSHEV B V	51
SYWINSKI R	68	TOMOV I V	15	VARAVKA V N	82
SZENTIRMAY SZ	78	TOPCHYAN I I	79	VARGA P	78
SZPIGLER Z	39	TOPOROV V V	71	VARNAVSKIY O P	69
SZUSTAKOWSKI M	43	TOROPKIN G N	5	VARTANYAN T A	28
SZYDLAK J	2	TOROPOVA T P	47,92	VASENKOV A A	81
		TOROSYAN G A	2	VASHKEVICH I M	5
TABARIN V A	23	TOSCH R	83	VASIL Y S	16
TABIRYAN N V	28	TRAMPIL'TSEV V N	48	VASILENKO G I	92
TABRIN V N	31	TRAYBER A S	27	VASILENKO L S	29,78
TACANTSEV D K	81	TREMBLAY R	40	VASILENKO M V	1
TAGIYEV Z A	29	TRIFONOV A S	43	VASILENKO N A	23
TALALA N S	82	TRINCHUK B F	7	VASILISHCHEVA I V	39
TALALAKIN G N	19	TRUBAYEV V V	82	VASILIU V	9
TAOVA T M	84	TRUBETSKOY A V	36	VASILYAK L M	12
TARANUKHIN V D	33	TRUBNIKOV A I	59	VASILYAUSKAS V	30
TARASENKO V F	8	TRUKHIN V N	85	VASIL'YEV A F	50
TARASOV G G	27	TRUSHIN YE V	21	VASIL'YEV A V	38
TARASOV I S	4	TRUS'KO V L	37	VASIL'YEV B I	8
TARASOVA N M	17	TSAGARELI R V	58	VASIL'YEV M G	4
TARCHENKO A A	40	TSAR'KOV V A	9	VASIL'YEV M P	55
TARCHENKO N V	40	TSARYUK O V	57	VASIL'YEV N N	5
TARKOV V A	51	TSATSULIN M I	10	VASIL'YEV YE N	83
TASHENOV B T	92	TSELINKO A M	9	VASIL'YEV YU P	51
TASHENOV B T	47,48	TSELYKOVSKIY A F	11	VASIL'YEVA E A	60,64
TATARINOVA T S	21	TSIBUL'KIN L M	92	VASIN L N	43
TEELEVAN V YE	85	TSIRULE I KH	27	VASSILEV YA	81
TEM E L	48,92	TSOPP L E	58	VAVILOVA L S	4
TEMCHENKO V S	53	TSUKANOV A A	19	VECHKANOV N N	37
TEMROKOV A I	84	TSVETKOV V A	69	VEDENEYEVA G V	75
TEODORESCU V S	83	TSYBESKOV L V	69	VEDENOV A A	92
TEPLYAKOV I M	22	TSYGANOVA I YU	40	VEDLIN B	17
TEREKHIN A V	45	TUAN ANH M	81	VERLENKO B A	45
TERESHCHENKO A G	74	TUCHKEVICH V M	55	VELIKHOV YE P	36
TERESHCHENKO A I	43	TUCHKOVA YE A	81	VELIKIKH V S	82
TERPUGOV V S	5	TUMANOVA L M	74	VELIKOV L V	38
TESLENKO V P	43	TURKIN A A	20	VENTSKOVSKIY O M	41
TETER J	10	TURUKHANO B G	51	VERBIN S YU	64
TIBILOV S S	77	TURYANITSA I I	69	VERBOVETSKIY A A	51
TIGINYANU I M	85	TVOREMIROVA T A	43	VEREMEYENKO T V	34
TIKHOMIROV B A	49	TYAGAY V A	4	VERESHCHAGIN V G	45
TIKHOMIROV S A	78	TYAKHT V V	56	VERETENNIKOV V A	43
TIKHOMIROVA O V	46	TYAPKIN V A	46	VERGUN V V	48
TIKHONCHUK V T	31	TYCHINSKIY V P	58	VERKHOVSKIY YE B	74
TIKHONOV YE A	32	TYMCHIK G S	64,74	VERNER V D	86
TIKHONRAVOV A V	20	TYMPER S I	11	VERTIY A A	17
TIKUNOV A V	4	TYUGAY V K	82	VERTOSHI G	78

VERTOSI G	78	YASEN' A I	1	ZAVOROTNYY S I	35
VIDMANT F V	60	YASHCHUK V P	32	ZAYTSEV A S	85
VIFANSKIY YU K	44	YASHIN V YE	50	ZAYTSEV I A	46
VIL'GEL'MI B	77	YAS'KOV A	82	ZAYTSEV N K	69
VINETSKIY V L	69	YASTREBOV V M	51	ZAYTSEV S V	37
VINNIK M L	15	YATSENKO L P	9	ZAYTSEVA L A	79
VINOGRADOV A V	21	YAVOKHIN A N	80	ZBROJA J	39
VINOGRADOV B A	84	YEFIMOV O M	80,84	ZBYKOVSKAYA N I	85
VINOGRADOV I P	15	YEFREMOV V G	22	ZBYRAD S	39
VINOGRADOV YE A	70	YEGOROV A S	71	ZEL'DOVICH B YA	31
VINOKHODOV A YU	14	YEGOROV K D	48	ZELENSKIY A N	70
VISHCHAKAS YU	7,30,48,78	YELIGULASHVILI I A	53	ZEMLYANOV A A	28
VISHNEVSKAYA M A	55	YELISEYEV A I	55	ZEMSKOV K I	28,58,81
VITMAN A D	64	YELISEYEV P G	3,4	ZEYLIKOVICH I S	55
VITRICHENKO E A	21	YELIZAROV A YU	7	ZHARIKOV YE V	1
VITRIKHOVSKIY N I	58	YELIZAROVA T G	25	ZHARNIKOV S D	2
VITUSHKIN L F	64,65	YELKHOV V A	35	ZHAROV V F	65
VIZNER A A	23	YELOKHIN V A	16	ZHDANOK S A	14
VLADIMIROV F L	23	YELOKHINA G N	79	ZHDANOV V S	36
VLASENO YU V	28	YEMEL'YANOV I D	74	ZHDANOVSKIY V A	57
VLASOV N G	65,89	YENGOYAN T M	47	ZHIDKOV YE P	46
VLCKOVA B	78	YEPATKO I V	35	ZHIGLINSKIY A G	79
VODOP'YANOV L K	70	YEPISHIN V A	51	ZHIL'TSOV V I	7
VOIGT P	19,22,38	YEREMENKO A S	23	ZHINGAREV M Z	37
VOINOV V V	22	YEREMEYEV B V	58	ZHIROVETSKIY V M	65
VOLKOV L I	17	YEREMKO A A	28	ZHITKOV P M	70
VOLKOV S A	65	YERMAKOV V P	29	ZHITNYUK V A	1
VOLOSTNIKOV V G	46	YERMOLAYEV M M	52	ZHIZHIN G N	70,79
VOL'POV A L	52	YERMOLENKO N N	75	ZHORNIK V P	19
VOL'SKAYA S P	11	YEROKHOVETS V K	51	ZHUCHKOV N A	59
VOLYAK T B	51	YERSHOV B V	89	ZHUK A YE	36
VORONTSOV A A	44	YERSHOV-PAVLOV YE A	78	ZHUKOV O K	84
VORZOBOVA N D	52,55	YESADZE G G	56	ZHUKOV YE A	50
VOYTOV V N	49	YESAKOVA I N	59	ZHURAVLEV O A	63
VOYTOVICH A P	1	YESEPKINA N A	65	ZHURAVSKIY V L	82
VSEVOLODOV N N	55	YEVDOKIMOV M V	65	ZHURKIN B G	80
VTYURIN A N	29	YEVSEYEV O A	21	ZHURKOV S N	84
VUCHKOV N K	13	YEVTIKHEYEV V P	4	ZIMIN B I	40
VURBANOV N	44	YEVTIKHIEVA O A	65	ZIMIN L G	67
VUS B S	65	YUDIN A V	60	ZIMIN YU A	52
VYACHESLAVOV L N	65	YUMASHEV K V	6	ZINOV'YEV P V	65
VYSIKAYLO F I	14	YUNOVICH A E	78	ZIOLKOWSKI Z	57
VYSOCHANSKIY YU M	48	YURCHIKOV B M	18	ZNAMENSKIY N V	14
		YUREVICH V A	1	ZLOTAREVA L YE	75
		YUR'YEV B V	65	ZLOT'KO A S	31
WENGLER P	36	YURYSHEV N N	15	ZOLOTOVSKAYA YE F	57
WESOLOWSKI P	65			ZOLOTOY YU G	63
WESTPHAL K D	18,19	ZABOLOTNYKH A V	56	ZOZULYA A A	31
WIEDERHOLD G	23	ZABOLOTSKAYA YE A	30	ZSCHOCKE W	23
WIESNER P	81	ZADORIN A S	32	ZUBAREV YU B	44
WILGELMI B	77	ZAFIROVA B	24	ZUBKOV A I	42
WINKELMANN S	38	ZAJAC M	54,63	ZUBOV V A	51,72
WITKO W	78	ZAKHARCHENKO S V	48	ZUYEV A N	27
WOJCIK J	2,39	ZAKHAROV A K	49	ZUYEV V S	15
WOLINSKI W	5	ZAKHAROV A V	14	ZUYEV V YE	49,79
WOLSKI R	5	ZAKHAROV M I	17	ZUYEVA T V	66
WURLITZER G	21	ZAKHAROV S D	58	ZVEREV A F	82
		ZAKHAR'YASH V F	56	ZVEREV G M	1
YAFAYEV N R	49	ZAKIROV SH KH	65	ZVEREV YU K	65
YAGUPOL'SKIY L M	6	ZAKREVSKIY S I	18	ZVEREVA S G	31
YAKHONTOVA V YE	9	ZAMKOVETS N V	69	ZYBIN A V	72
YAKIMOV K S	52	ZAMULYUKIN A T	87	ZYBURA A	12
YAKOVLENKO S I	8	ZAPOROZHCHENKO V A	5	ZYKOV L I	35
YAKOVLEV V A	79	ZARGAR'YANTS M N	44		
YAKOVLEV P P	25,67	ZARIPOV SH KH	17		
YAKOVLEVA T V	37	ZAROSLOV D YU	38		
YAKUBENAS R	55	ZARTOV G	24		
YANKAUSKAS A	48	ZARTOV G D	24		
YANKOVSKIY A A	30	ZARUBIN A M	59		
YANUSHKEVICH V A	89	ZASAVITSKIY I I	75,78		
YARASHYUNAS K	83	ZASLAVSKIY B I	65		
YAREMENKO YU I	69	ZASLAVSKIY V YA	51		
YAROSHETSKIY I D	90	ZAULS V A	27		
	85				

END

DATE

FILMED

4-88

DTIC