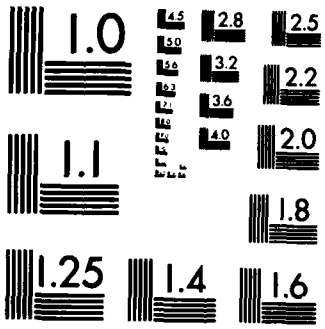
AD-A151 199 BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS NUMBER 67 1/2
SEPTEMBER-OCTOBER 1983(U) DEFENSE INTELLIGENCE AGENCY
WASHINGTON DC DIRECTORATE FOR SCI.. 05 DEC 84
UNCLASSIFIED DIA-DST-2700Z-001-85 F/G 20/5 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

UNCLASSIFIED

DST-2700Z-001-85

(12)

DEFENSE
INTELLIGENCE
AGENCY

AD-A151 199

Bibliography of Soviet Laser Developments (U)

September-October 1983

DTIC FILE COPY

DTIC
ELECTE
MAR 1 4 1985
S D
E

JANUARY 1985

This document has been approved for public release and sale; its distribution is unlimited.

85 03 01 011

UNCLASSIFIED

BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 67

SEPTEMBER - OCTOBER 1983

Date of Report

December 5, 1984

Vice Director for Foreign Intelligence
Defense Intelligence Agency

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	2. GOVT ACCESSION NO. AD-A151 199	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS, No. 67 SEPTEMBER - OCTOBER 1983		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 December 5, 1984
		13. NUMBER OF PAGES 114
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 1983, and is No. 67 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; crystal growing; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; 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 1983, 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.

Starting with this issue, we are 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.

Accession For
NTIS GRA&I ☒
DTIC TAB ☐
Unannounced ☐
Justification
By
Distribution/
Availability Codes
Dist | Avail and/or Special
A-1

SOVIET LASER BIBLIOGRAPHY, SEPTEMBER - OCTOBER 1983

TABLE OF CONTENTS

I. BASIC RESEARCH

A. Solid State Lasers

1. Crystal

a. Miscellaneous 1

b. Ruby 2

2. Rare Earth

a. Miscellaneous 2

b. Nd3+ 2

c. Er3+ 3

d. Ho3+ ..... ---

e. Tm3+ ..... ---

3. Semiconductor

a. Theory 3

b. Miscellaneous Homojunction ..... ---

c. Miscellaneous Heterojunction 4

d. GaAs 5

e. CdS 5

f. ZnSe ..... ---

g. Pb(1-x)Sn(x)Te 5

4. Glass

a. Miscellaneous ..... ---

b. Nd 6

c. Er 6

B. Liquid Lasers

1. Organic Dyes

a. Miscellaneous 6

b. Rhodamine 7

c. Polymethine ..... ---

d. Coumarin ..... ---

e. Phthalimide ..... ---

f. Cyanine ..... ---

g. Xanthene ..... ---

h. POPOP ..... ---

C. Gas Lasers

1. Theory 7

2. Simple Mixtures

a. Miscellaneous ..... ---

b. He-Ne 9

c. He-Xe ..... ---

d. He-Kr ..... ---

e. Ar-Xe 10

3. Molecular Beam and Ion

a. Miscellaneous 10

b. CO_2 10

c. CO 12

d. Noble Gas 12

e. N_2 12

f. I_2 12

g. H_2 ..... ---

h. NH_3 12

i. CF_4 ..... ---

j. N_2O ..... ---

k. H_2O ..... ---

l. D_2O ..... ---

m. Submillimeter 13

n. Metal Vapor 13

o. Gasdynamic 14

4. Excimer 16

D. Chemical Lasers

1. Miscellaneous 17

2. $F_2+H_2(D_2)$ 17

3. Photodissociation 18

4. Transfer 18

5. O_2+I_2 ..... ---

6. CS_2+O_2 ..... ---

7. SF_6+H_2 18

E. Components

1. Miscellaneous ..... ---

2. Resonators

a. Design and Performance 18

b. Mode Kinetics ..... ---

3. Pump Sources 19

4. Cooling Systems ..... ---

5. Deflectors 21

6. Attenuators ..... ---

7. Collimators ..... ---

8. Diffraction Gratings 21

9. Focusers 21

10. Windows ..... ---

11. Polarizers 22

12. Amplifiers ..... ---

13. Lenses ..... ---

14. Filters 22

15. Beam Splitters 22

16. Mirrors 22

17. Detectors 22

18. Modulators 23

F. Nonlinear Optics

1. General Theory 25

2. Frequency Conversion 27

3. Parametric Processes 27

4. Stimulated Scattering

a. Miscellaneous Scattering 28

b. Raman 28

c. Brillouin 29

d. Rayleigh ..... ---

5. Self-focusing 30

6. Acoustic Interaction 30

G. Spectroscopy of Laser Materials 31

H. Ultrashort Pulse Generation 32

J. Crystal Growing 33

K. Theoretical Aspects of Advanced Lasers ... 33

L. General Laser Theory 33

II. LASER APPLICATIONS

A. Biological Effects 36

B. Communications Systems 37

C. Beam Propagation

1. Theory 41

2. Propagation in the Atmosphere 42

3. Propagation in Liquids 47

4. Adaptive Optics 47

D. Computer Technology 48

E. Holography 49

F. Laser-Induced Chemical Reactions 53

G. Measurement of Laser Parameters 55

H. Laser Measurement Applications

1. Direct Measurement by Laser 57

2. Laser-Excited optical Effects 67

3. Laser Spectroscopy 71

J. Beam-Target Interaction

1. Miscellaneous Targets 76

2. Metal Targets 77

3. Dielectric Targets 78

4. Semiconductor Targets 79

K. Plasma Generation and Diagnostics 79

III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS ... 84

IV. SOURCE ABBREVIATIONS 89

V. AUTHOR AFFILIATIONS 94

VI. AUTHOR INDEX 104

I. BASIC RESEARCH

A. SOLID STATE LASERS

1. Crystal

a. Miscellaneous

1. Basiyev, T.T.; Burakov, V.S.; Karpushko, F.V.; Kovalev, D.V.; Mirov, S.B.; Morozov, V.P.; Prokhorov, A.M.; Sinitsyn, G.V.; Shkadarevich, A.P. (IFANB). Lasing characteristics of LiF:F2 negative ion crystal lasers under high-power pumping. KVEKA, no. 9, 1983, 1919-1921.

2. Blaszczak, Z ; Ludwiczak, M.; Kaczmarek, F. (). Bleaching of F2 centers in LiF:F2 color center lasers. PSSAB, v. A75, no. 2, 1983, K195-K198. (RZFZA, 83/9D645).

3. Dubovik, M.F.; Bondar', V.G.; Drogaytsev, Ye.A.; Maysov G.V.; Lakin, Ye.Ye.; Nazarenko, B.P.; Nezguretskiy, B. (VNIIMono). Growth and properties of calcium orthovanadate crystals. IVNMA, no. 9, 1983, 1521-1524.

4. Loktyushin, A.A.; Soldatov, A.N.; Sukhanov, V.B.; Troitskiy, V.O.; Chernyshev, A.I. (SKBOptika). Color-center laser pumped by radiation from copper vapor and dye lasers. KVEKA, no. 10, 1983, 2132-2134.

5. Mikhnov, S.A. (). Dynamics of color center formation in alkali-halide crystals under the effect of ionizing radiation. ZPSBA, v. 39, no. 3, 1983, 454-462.

6. Mikhnov, S.A.; Stratskevich, L.A., Khyuppenen, V.P.; Shkadarevich, A.P. (). Stability of LiF:F2 negative ion laser elements under UV radiation. ZPSBA, v. 39, no. 4, 1983, 552-556.

7. Mirov, S.W. (FIAN). Tunable lasers using color centers in LiF crystals. FIAN. Dissertation, 1983, 27 p.

8. Zharikov, Ye.V.; Il'ichev, N.N.; Kalitin, S.P.; Laptev, V.V.; Malyutin, A.A.; Osiko, V.V.; Ostroumov, V.G.; Pashinin, P.P.; Prokhorov, A.M.; Smirnov, V.A.; Umyskov, A.F.; Shcherbakov, I.A. (FIAN). Tunable gadolinium-scandium-gallium garnet laser operating at an electron-vibrational transition in chromium. KVEKA, no. 9, 1983, 1916-1919.

9. Zharikov, Ye.V.; Zhitkova, M.B.; Zverev, G.M.; Isayev, M.P.; Kalitin, S.P.; Kuratev, I.I.; Kushnir, V.R.; Laptev, V.V.; Osiko, V.V.; Pashkov, V.A.; Pimenov, A.S.; Prokhorov, A.M.; Smirnov, V.A.; Stel'makh, M.F.; Shestakov, A.V.; Shcherbakov, I.A. (IOF). Lasing characteristics of a repetitively pulsed gadolinium-scandium-gallium garnet laser. KVEKA, no. 10, 1983, 1961-1963.

b. Ruby

10. Agashkov, A.V.; Morgun, Yu.F. (). Effect of a secondary electrooptic effect on lasing in distributed feedback lasers. ZPSBA, v. 39, no. 3, 1983, 384-389.

11. Krivoshchekov, G.V., Prots', M.I.; Stupak, M.F. (IAESOAN). External-signal-initiated laser with a resonator using stimulated Brillouin scattering/stimulated thermal scattering mirrors. PZTFD, no. 17, 1983, 1035-1039.

12. Morgun, Yu.F.; Muravitskiy, M.A.; Lavrovskiy, L.A. (). The IRIS pulsed ruby laser. PRTEA, no. 5, 1983, 231.

13. Morgun, Yu.F.; Muravitskiy, M.A.; Lavrovskiy, L.A. (). The IRIS pulsed ruby light source. ZPSBA, v. 39, no. 4, 1983, 684-687.

2. Rare Earth

a. Miscellaneous

14. Antipenko, B.M.: Raba, O.B.; Seyranyan, K.B.; Sukhareva, L.K. (). Quasi c-w lasing from LiYF4:Er+Pr at 0.85 microns. KVEKA, no. 9, 1983, 1874-1877.

15. Demirkhanyan, G.G.; Safaryan, F.P. (). Calculating the Debye-Waller factor in impurity laser crystals. DANAA, no. 2, 1983, 83-88. (RZFZA, 83/9D1234).

b. Nd3+

16. Andreyev, R.V.; Gulidov, S.S.; Papernyy, S.B.; Serebryakov, V.A.; Tarasov, A.A. (). Periodic pulsed multicolor Raman laser. OPSPA, v. 55, no. 4, 1983, 764-766.

17. Asayenok, N.A.; Kostenich, Yu.V.; Rubinov, A.N.; Khulugurov, V.M.; Chepurnoy, V.A.; Shkadarevich, A.P.; Efendiyev, T.Sh. (). Tunable F2 color center laser with distributed feedback. PZTFD, no. 18, 1983, 1144-1146.

128. Vayndiner, A.A. (KazNIIMM). Package of practical programs for designing a gasdynamic laser. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 124-134.

129. Vayndiner, A.A.; Kiselev, O.M.; Krasnov, S.I. (KazNIIMM). Approximate method for calculating the gas flow in the nozzle unit of a gasdynamic laser. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 30-48.

130. Vayndiner, A.A.; Kiselev, O.M.; Semichev, A.Ya. (KazNIIMM). Problem of optimizing a gasdynamic CO2 laser. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 64-71.

131. Yelov, V.V.; Cherepenin, N.D. (KazNIIMM). Effect of the shape of the radiator on the intensity and energy distribution in the far zone. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 107-115.

4. Excimer

132. Arslanbekov, G.U.; Derzhiyev, V.I.; Yurovskiy, V.A.; Yakovlenko, S.I. (FIAN). Analysis of the characteristics of the active medium of a helium hydride exciplex laser in a steady-state approximation. FIAN. Preprint, no. 101, 1983, 16 p. (RZFZA, 83/9D1224).

133. Baranov, V.Yu.; Borisov, V.M.; Vinokhodov, A.Yu.; Vysikaylo, F.I.; Kiryukhin, Yu.B. (). Effect of stepped processes on the stability of an internal discharge during increase of the discharge pulse rate in an XeCl laser. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 366-368.

134. Bibinov, N.K.; Vinogradov, I.P. (LGU). Kinetics of XeF(B) excimer formation during photoexcitation of an Xe-F2 mixture. KVEKA, no. 9, 1983, 1931-1934.

135. Borisov, V.M.; Vysikaylo, F.I.; Kiryukhin, Yu.B.; Khristoforov, O.B. (IAE). Periodic pulsed grazing discharge. KVEKA, no. 10, 1983, 2110-2112.

136. Buchnev, V.M.; Klementov, A.D.; Sergeyev, P.B. (FIAN). High-efficiency excimer KrF laser with e-beam pumping. KVEKA, no. 10, 1983, 2048-2053.

137. Burakov, V.S.; Bokhonov, A.F.; Titarchuk, V.A. (IFANB). Study on the effect of intracavity absorption on the lasing spectrum of an electric discharge XeCl laser. DBLRA, no. 10, 1983, 885-888.

118. Cherepenin, N.D. (KazNIIMM). Propagation of a turbulent jet in a channel. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 71-79.

119. Doroshenko, V.M.; Kryuchkov, S.I.; Kudryavtsev, N.N.; Novikov, S.S. (). Study on the transfer of IR radiation and distribution of molecules by the vibrational degrees of freedom in a thermodynamically nonequilibrium molecular gas. KHPLD, no. 10, 1983, 209-263. (RZFZA, 83/9D1224).

120. Fayzrakhmanov, R.T. (KazNIIMM). Analysis of the chemical composition of a glow discharge plasma for a CO2-N2-O2-He gas mixture. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 99-107.

121. Fedosov, A.A. (KazNIIMM). Variational method for constructing the contour of a supersonic nozzle, allowing for vibrational nonequilibrium of the flow. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 22-29.

122. Fomin, N.A. (). Possibility of obtaining population inversion by mixing in a supersonic flow. Neravnovesnyye protsessy v gazovoy dinamike. ITMO. Sbornik nauchnykh trudov. Minsk, 1983, 10-32. (RZFZA, 83/10D1087).

123. Galeyev, R.S.; Krasnov, S.I.; Fedosov, A.A. (KazNIIMM). Numerical study on vibrational nonequilibrium flows in Laval nozzles at moderate Reynolds numbers. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 3-22.

124. Goryachev, S.B.; Makeyev, V.S.; Orlov, M.Yu.; Semenychev, L.N.; Khromylev, V.N.; Sharkov, V.F. (). Regenerative electric gas heater for a gasdynamic laser. INFZA, v. 45, no. 3, 1983, 359-365.

125. Khizhnyak, S.M. (). Numerical modeling of gasdynamic methods for obtaining population inversion in carbon monoxide. Neravnovesnyye protsessy v gazovoy dinamike. ITMO. Sbornik nauchnykh trudov. Minsk, 1983, 48-55. (RZFZA, 83/10D1088).

126. Shel'pyakov, V.Yu. (KazNIIMM). Generator of programs for solving equations of vibrational kinetics. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 134-141.

127. Shmotkin, Yu.S. (FIAN). Theoretical study on homogeneous condensation and its characteristics in gasdynamic lasers. FIAN. Dissertation, 1983, 23 p.

109. Trofimov, A.N. (FIAN). Study on pulsed copper halide vapor lasers. FIAN. Dissertation, 1983, 18 p. (KLDVA, 10/83, 15359).

110. Zayakin, A.A.; Klimovskiy, I.I. (IVTAN). Relaxation of concentrations of metastable copper atoms in the afterglow of a CuI laser with higher-than-optimum wall temperatures. KVEKA, no. 9, 1983, 1866-1868.

111. Zubov, V.V.; Lyabin, N.A.; Mishin, V.I.; Muchnik, M.L.; Parshin, G.D.; Chernyak, Ye.Ya.; Chursin, A.D. (ISAN). Study on a copper vapor laser with a long service life and inproved pump pulse parameters. KVEKA, no. 9, 1983, 1908-1910.

o. Gasdynamic

112. Akhmed'yanova, F.A.; Belyakov, Yu.M.; Vayndiner, A.A.; Kiselev, O.M.; Krasnov, S.I.; Cherepenin, N.D. (KazNIIMM). Calculating the flow in the resonator of a gasdynamic CO2 laser. Comparison of models. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 48-63.

113. Antropov, Ye.T.; Yefremov, N.M.; Karpukhin, V.T.; Konev, Yu.B.; Chernyshev, S.M.; Shal'nova, N.I. (IVTAN). Some lasing parameters of CO2 gasdynamic lasers with high-temperature regenerative heat transfer heating of the active gas. INFZA, v. 45, no. 3, 1983, 357-359.

114. Araslanov, Sh.F. (KazNIIMM). Calculating the electron distribution function by the energies in a weakly ionized gas-discharge plasma. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 80-91.

115. Araslanov, Sh.F.; Yelov, V.V.; Kiselev, O.M.; Shel'pyakov, V.Yu. (KazNIIMM). Designing a gas-discharge CO2 laser with a given energy input. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 91-99.

116. Belykh, A.D.; Gurashvili, V.A.; Dem'yanov, A.V.; Kochetov, I.V.; Napartovich, A.P. (IAE). Experimental and theoretical study on HCl gasdynamic lasers. IAE. Preprint, no. 3757/12, 1983, 29 p. (RZFZA, 83/10D1089).

117. Cherepenin, N.D. (KazNIIMM). Field distribution behind a system of radiators in the far zone. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 115-124.

i. CF4

j. N2O

k. H2O

l. D2O

m. Submillimeter

101. Fesenko, L.D.; Dyubko, S.F.; Bogatyrev, A.Ye.; Polevoy, B.I.; Shevyrev, A.S. (UZPI; KhGU). Stabilization of the power level in optically pumped submillimeter lasers. KVELA, no. 25, 1983, 50-55.

102. Gerasimov, V.G.; Dyubko, S.F.; Yefimenko, M.N.; Fesenko, L.D.; Yartsev, V.I. (KhGU). Optically pumped c-w submillimeter laser using ammonia and its deuterated substituents. UFZHA, no. 9, 1983, 1323-1327.

n. Metal Vapor

103. Direktor, L.B.; Karasev, A.V.; Malikov, M.M.; Skovorod'ko, S.N. (IVTAN). Method for measuring the wall temperature in a metal vapor laser. PRTEA, no. 5, 1983, 191-192.

104. Fuchko, V.Yu.; Kel'man, V.A.; Zapesochnyy, I.P. (UZhGU). Cuvette with a hollow cathode for pulsed lasers using metal vapors and their chemical compounds. PRTEA, no. 5, 1983, 189-190.

105. Galkin, A.F.; Klimovskiy, I.I.; Selezneva, L.A. (IVTAN). Numerical analysis of the parameters of self-heating copper vapor lasers. TVYTA, no. 5, 1983, 976-981.

106. Litvinenko, A.Ya.; Odulov, S.G. (IFANUk). Copper vapor laser with a self-recording nonlinear mirror based on frequency-degenerate stimulated optical scattering. UFZHA, no. 9, 1983, 1427-1429.

107. Marazov, O.R.; Angelov, M.A.; Zhekov, V.L.; Ivanov, S.S.; Borisov, V.T. (). High-average-power copper vapor laser. ELPBA, no. 12, 1982, 528-531. (RZRAB, 83/10Ye53).

108. Soldatov, A.N.; Fedorov, V.F. (IOA). Copper vapor laser with a 230 kHz pulse rep rate. IVUFA, no. 9, 1983, 80-84.

c. CO

93. Averin, A.P.; Basov, N.G.; Glotov, Ye.P.; Danilychev, V.A.; Drachuk, L.N.; Kerimov, O.M.; Matveyev, I.N.; Sorkin, A.M.; Soroka, A.M.; Ustinov, N.D.; Cheburkin, N.V.; Yugov, V.I. (FIAN). Study on the energy characteristics of a 10 KW c-w electroionization industrial CO laser. KVEKA, no. 10, 1983, 2090-2092.

94. Dubovskiy, P.Ye.; Lotkova, E.N.; Sobolev, N.N.; Ponomarev, D.I. (FIAN). Compact CO laser. KVEKA, no. 9, 1983, 1895-1896.

95. Kornilov, S.T.; Protsenko, Ye.D.; Tymper, S.I.; Chirikov, S.N. (MIFI). Waveguide CO laser with broadband tuning of the radiation frequency. KVEKA, no. 9, 1983, 1924-1926.

d. Noble Gas

96. Golovanivskiy, K.S.; Dugar-Zhabon, V.D.; Safonov, S.A. (UDN). Charge composition of argon ions in an electron-cyclotron-resonance discharge. PZTFD, no. 7, 1983, 443-446.

e. N2

97. Abramov, A.G.; Asinovskiy, E.I.; Vasilyak, L.M. (IVTAN). Study on the space-time dynamics of pump and radiation waves in a nitrogen laser. KVEKA, no. 9, 1983, 1824-1828.

98. Aranchuk, L.Ye.; Bogolyubskiy, S.L.; Vikharev, V.D. (). Multimode nitrogen laser for diagnostics of plasmas produced by relativistic e-beam generators. KVEKA, no. 10, 1983, 2098-2099.

f. I2

99. Taszner, A.; Wojtkowiak, J. (). Gain measurements in an He-I+ laser. APYCA, no. 2, 1982, 129-135. (RZFZA, 83/9D1280).

g. H2

h. NH3

100. Yastrebkov , A.B. (FIAN). Ammonia laser at atmospheric pressure with continuous tuning and passive longitudinal mode lock. FIAN. Dissertation, 1983, 15 p. (KLDVA, 10/83, 15378).

83. Bertel', I.M.; Petukhov, V.O.; Solodukhin, A.S.; Trushin, S.A.; Churakov, V.V. (). Nontraditional transitions of the CO2 molecule for diagnostics of the active media of CO2 lasers. Neravnovesnyye protsessy v gazovoy dinamike. ITMO. Sbornik nauchnykh trudov. Minsk, 1983, 86-120. (RZFZA, 83/10D1069).

84. Bertel', I.M.; Petukhov, V.O.; Trushin, S.A.; Churakov, V.V. (IFANB). Study on gain and conditions for efficient lasing at hot band lines in a TEA-CO2 laser. IFANB. Preprint, no. 289, 1983, 58 p. (RZRAB, 83/10Ye30).

85. Bugayev, V.A.; Shliteris, E.P. (). Laser optoacoustic spectroscopy of molecular gases and its use for generation of submillimeter laser radiation and Q-switching of CO2 lasers. ZPSBA, v. 39, no. 4, 1983, 573-580.

86. Bychkov, Yu.I.; Orlovskiy, V.M.; Osipov, V.V.; Poteryayev, A.G. (ISE). Compact pulsed CO2 laser with a sealed-off electron source. PRTEA, no. 5, 1983, 185-186.

87. Gubarev, A.V.; Nekrasov, A.A. (). Wavelike flow of gases in a gas-discharge chamber with a periodic pulsed energy source. KVEKA, no. 9, 1983, 1829-1833.

88. Gudkov, V.I.; Dmitriyev, B.L.; Dmitriyev, K.I.; Kusenko, A.I.; Panasyuk, V.F.; Remigaylo, Yu.L.; Shulakov, V.N. (IAE). Determining the efficiency of a fast-flow CO2 laser with a self-sustained discharge. IAE. Preprint, no. 3737-15, 1983, 12 p. (RZRAB, 83/10Ye26).

89. Kornilov, S.T.; Chirikov, S.N. (). Study on the gain of a waveguide CO2 laser. ZPSBA, v. 39, no. 4, 1983, 563-567.

90. Kudryavtsev, N.N.; Novikov, S.S. (IPMe). Theoretical and experimental studies on IR radiation transfer in a vibrationally nonequilibrium molecular gas containing CO2 and CO. IPME. Preprint, no. 210, 1982, 64 p. (RZFZA, 83/9D560).

91. Lopantseva, G.B., Napartovich, A.N.; Starostin, A.N. (). Effect of nitrogen oxides on the energy characteristics of a CO2 laser with a semi-self-maintained discharge. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 372-374.

92. Petukhov, V.O. (IFANB). Optimizing the output power of c-w CO2 lasers at various bands. DBLRA, no. 10, 1983, 893-896.

c. He-Xe

d. He-Kr

e. Ar-Xe

76. Baranov, V.Yu.; Isakov, I.M.; Leonov, A.G.; Malyutta, D.D.; Novobrantsev, I.V.; Smakovskiy, Yu.B.; Strel'tsov, A.P. (). Effect of pump conditions on IR lasing in Ar:Xe mixtures. PZTFD, no. 18, 1983, 1124-1128.

3. Molecular Beam and Ion

a. Miscellaneous

77. Kupriyanov, N.L. (FIANKuy). Electroionization hydrogen-iodine laser. KVEKA, no. 10, 1983, 2124-2125.

b. CO2

78. Apollonov, V.V.; Akhunov, N.; Derzhavin, S.I.; Kononov, I.G.; Sirotkin, A.A.; Firsov, K.N.; Yamshchikov, V.A. (FIAN). CO2 laser with adjustable radiation pulse length. KVEKA, no. 9, 1983, 1929-1931.

79. Artamonov, A.V. (). Experimental study on the energy balance in the positive column of a self-sustained glow discharge in an air-CO2 flow. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 369-371.

80. Averin, A.P.; Basov, N.G.; Glotov, Ye.P.; Danilychev, V.A.; Kerimov, O.M.; Malysh, M.M.; Soroka, A.M.; Tsepelev, V.Ye.; Cheburkin, N.V. (FIAN). Increasing the energy characteristics and service life of c-w industrial electroionization CO2 lasers by using five-component laser mixtures. PZTFD, no. 20, 1983, 1224-1228.

81. Averin, A.P.; Basov, N.G.; Glotov, Ye.P.; Danilychev, V.A.; Kerimov, O.M.; Matveyev, I.N.; Soroka, A.M.; Ustinov, N.D.; Yugov, V.I.; Cheburkin, N.V. (FIAN). Universal industrial electroionization CO2-CO laser. IANFA, no. 8, 1983, 1519-1526.

82. Bakanov, D.G.; Kulikov, A.O.; Odintsov, A.I.; et al. (IAE). Saturation characteristics in fast-flow CO2 lasers. IAE. Preprint, no. IAE-3684/12, 1982, 14 p. (KNLTA, 42/83, 38069).

2. Simple Mixtures

a. Miscellaneous

b. He-Ne

68. Atutov, S.N. (IAESOAN). Controlling the spectral characteristics of an He-Ne laser by a magnetic field. $IAESOAN. Dissertation, 1982, 16 p. ($KLDVA, 10/83, 15263).

69. Dem'yantseva, S.D.; Lazarev, G.A.; Tabarin, V.A. (). Effect of amplitude anisotropy on controlling the polarization of laser radiation. ZPSBA, v. 39, no. 4, 1983, 670-672.

70. Fofanov, Ya.A. (). Study on the shift in frequency of various strata in the active elements of He-Ne lasers. OPSPA, v. 55, no. 4, 1983, 723-729.

71. Gavrilov, D.N.; Rabinovich, E.M.; Tuchin, V.V. (IMFS). Using light focusing by a gas-discharge medium to stabilize the power of an He-Ne laser at 6401 angstroms. PRTEA, no. 5, 1983, 187-188.

72. Maksjan, K.; Torjanowski, W.; Dabrowski, M.; Szumowski, L. (). Ring laser. Patent Poland, no. 116235, 30 Oct 1982. (RZRAB, 83/10Ye77).

73. Mogil'naya, T.Yu.; Savel'yev, I.I.; Timonin, P.V.; Yakushev, A.I. (). Interaction of opposed circularly polarized waves in an He-Ne ring laser with gain greatly exceeding losses. KVEKA, no. 10, 1983, 2032-2038.

74. Ristici, M.; Maris, Z.; Vasiliu, V.; Apostol, D.; Blanaru, C.; Bachmann, P.; Medianu, R. (). He-Ne laser for use in the field. SCEFA, no. 4, 1983, 398-402. (RZFZA, 83/10D1063).

75. Vasiliu, V.; Nicolau-Rebigan, S.; Ristici, M.; Medianu, R.; Blanaru, C.; Bachmann, P. (). The LG-1-IR He-Ne laser with radiation in the near infrared. SCEFA, no. 2, 1983, 95-102. (RZFZA, 83/10D1062).

58. Izmaylov, I.A.; Kochelap, V.A. (IPANUk). Calculating the gain at electron transitions of diatomic molecules. KVELA, no. 25, 1983, 42-50.

59. Klyucharev, A.N.; Sepman, V.Yu.; Sheverev, V.A. (). Ionization processes in the optical excitation of atoms of the second group and their effect on the characteristics of a TEA discharge in nitrogen. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 25-27.

60. Levin, V.A.; Starik, A.M. (). Vibrational energy exchange in binary mixtures based on hydrogen halides. Neravnovesnyye techeniya gaza i optimal'nyye formy tel v giperzvukovoy potoke. Moskva, 1982, 5-29. (RZFZA, 83/9D1203).

61. Paul, H.; Fischer, R.; Paul', Kh. (translit); Fisher, R. (translit) (). Absorption of light by dipoles. UFNAA, v. 141, no. 2, 1983, 375-381.

62. Petrova, M.D.; Atanasov, P.A. (). Gas laser with a transverse discharge. Author's certificate, no. 31450, 29 Jan 1982. (RZRAB, 83/10Ye53).

63. Savinov, S.Yu.; Tskhay, S.N. (FIAN). Doppler broadening of spectral lines during excitation by head-on electron collisions. KRSFA, no. 9, 1983, 3-7.

64. Strel'chenya, V.M. (). Calculating the efficiency of vibrational excitation and relaxation of polyatomic molecules in a low-temperature plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 138-140.

65. Strokan', G.P.; Tolmachev, G.N.; Khasilev, V.Ya. (). Effect of electrons on the population of levels in a high-frequency discharge plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 61-63.

66. Yelagin, V.V.; Fotiadi, A.E. (). Study on the positive column of a helium capillary discharge. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 21-23.

67. Zakrevskiy, N.V.; Tserkovnyy, S.I. (). Population kinetics at cadmium ion levels in a helium mixture. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 447-449.

52. Mayyer, G.V.; Galeyeva, A.I.; Bazyl', O.K.; Danilova, V.I. (SFTI). Calculating some of the lasing characteristics of active media in organic compound lasers. KVEKA, no. 10, 1983, 2094-2097.

53. Mirza, S.Yu.; Soldatov, A.N.; Sukhanov, V.B. (). Distributed feedback laser pumped by copper vapor laser radiation. ZPSBA, v. 39, no. 4, 1983, 548-552.

54. Vartanyan, S.A.; Dadivanyan, A.K.; Melik-Sarkisyan, A.A.; Nazaryan, A.A.; Piruzyan, E.V.; Tarumyan, S.Kh. (). Laser properties of some new dyes. IAAFA, no. 1, 1983, 48-51. (RZFZA, 83/9D1225)

b. Rhodamine

55. Korol'kova, N.V.; Akimov, A.I.; Denisov, L.K.; Uzhinov, B.M. (). Lasing efficiency of rhodamine dye solutions in various solvents. ZPSBA, v. 39, no. 3, 1983, 406-412.

c. Polymethine

d. Coumarin

e. Phthalimide

f. Cyanine

g. Xanthene

h. POPOP

2. Inorganic liquids

C. GAS LASERS

1. Theory

56. Alferov, G.N. (IAESOAN). Study on the plasma parameters and lasing characteristics of ion lasers with transverse pumping of the gas. IAESOAN. Dissertation, 1982, 9 p. (KLDVA, 9/83, 13903).

57. Breyev, V.V.; Dvurechenskiy, S.V.; Pashkin, S.V. (). Numerical study on the characteristics of current flow for various methods of producing a discharge in fast-flow lasers and the mechanism of current flow in a positive glow discharge column. TVYTA, no. 5, 1983, 865-870.

44. Lubashevskiy, I.A.; Ryzhiy, V.I.; Mizerina, N.Yu. (). Theory on temperature dependence of the threshold current in injection lasers based on Pbl-xSnxTe semiconductors. FTPPA, no. 9, 1983, 1631-1634.

4. Glass

a. Miscellaneous

b. Nd

45. Shcherbakov, A.A.; Mak, A.A.; Sklizkov, G.V. (FIAN). Limit efficiency of neodymium glass lasers. KRSFA, no. 9, 1983, 8-12.

c. Er

46. Lunter, S.G.; Murzin, A.G., Tolstoy, M.N.; Fedorov, Yu.K.; Fromzel', V.A. (). Feasibility of increasing the efficiency of flashlamp pumping of erbium glass lasers. OPSPA, v. 55, no. 3, 1983, 583-586.

B. LIQUID LASERS

1. Organic Dyes

a. Miscellaneous

47. Al'tshuler, G.B.; Isyanova, Ye.D.; Karasev, V.B.; Krylov, K.I.; Okishev, A.V. (LITMO; LOMO). Amplification of picosecond pulses in a synchronously pumped dye laser. KVEKA, no. 9, 1983, 1946-1949.

48. Anufrik, S.S.; Zeylikovich, I.S.; Kukushkin, V.G.; Pul'kin, S.A. (GrodGU). Concentration of the radiation from a dye laser with an intracavity absorption cell. KVEKA, no. 10, 1983, 2053-2060.

49. Baraulya, V.I.; Mayorov, A.P.; Makukha, V.K.; Smirnov, V.A.; Tarasov, V.M. (ITF). Tunable jet-stream dye laser with synchronous pumping by the second harmonic of YAG:Nd laser radiation. KVEKA, no. 9, 1983, 1880-1881.

50. Itskhoki, I.Ya.; Seregin, S.L.; Cherednichenko, O.B. (). Study on dye lasers with pulsed longitudinal pumping. ZPSBA, v. 39, no. 3, 1983, 390-396.

51. Logunov, O.A. (FIAN). New active media for lasers using solutions and vapors of complex organic compounds. FIAN. Dissertation, 1983, 22 p. (KLDVA, 10/83, 15314).

36. Fronts, K.; Kuchinskiy, V.I.; Lazutka, A.S.; Mayorova, N.I.; Mishurnyy, V.A.; Portnoy, Ye.L.; Smirnitskiy, V.B. (FTI). Tunable semiconductor lasers with distributed feedback and injection heterolaser pumping. PZTFD, no. 17, 1983, 1043-1046.

37. Garbuzov, D.Z.; Agayev, V.V.; Khalfin, V.B.; Chalyy, V.P. (FTI). Radiative and Auger processes during photoexcitation of an electron-hole plasma in an InGaAsP/InP double heterostructure at 1.3 microns. FTPPA, no. 9, 1983, 1557-1563.

38. Gorelenok, A.T.; Kolyshkin, V.I.; Tarasov, I.S. (FTI). Stripe-geometry lasers based on double heterostructures in an InGaAsP/InP system produced by implanting oxygen ions. ZTEFA, no. 10, 1983, 1973-1978.

39. Karpov, S.Yu.; Kuchinskiy, V.I.; Lazutka, A.S.; Portnoy, Ye.L.; Smirnitskiy, V.B. (FIAN). Monolithic integrated semiconductor waveguide heterostructure produced by an optical interference illumination system. PZTFD, no. 17, 1983, 1047-1050.

40. Novotny, J.; Srobar, F.; Zelinka, J. (). Double heterostructure lasers prepared by liquid-phase epitaxy on medium-quality GaAs substrates under controlled As vapor conditions. Crystal Research and Technology [GDR], no. 5, 1983, 651-658. (RZFZA, 83/10D1122).

41. Yevtikhiyev, V.P.; Garbuzov, D.Z.; Agayev, V.V.; Khalfin, V.B.; Chalyy, V.P. (FTI). Edge band shape in InGaAsP/InP double heterostructures at 1.3 microns at high and low levels of optical excitation. FTPPA, no. 9, 1983, 1652-1655.

d. GaAs

e. CdS

42. Brodin, M.S.; Dmitrenko, K.A.; Taranenko, L.V.; Shevel', S.G. (). Lasing from CdS single crystals under pulsed flashlamp excitation. ZTEFA, no. 9, 1983, 1852-1854.

f. ZnSe

g. Pb1-xSnxTe

43. Dadarlat, D.; Candea, R.M.; Barlea, M. (). Majority carrier concentration and quasi-Fermi level for Pb1-xSnxTe double-heterodyne diode lasers. PSSAB, v. A76, no. 1, 1983, K61-K65. (RZFZA, 83/9D1266).

27. Hamal, K. (). Repetitive-pulse-pumped laser. Author's certificate Czechoslovakia, no. 203354, 15 Oct 1982. (RZRAB, 83/9Ye178).

28. Nasibov, A.S. (IAE). Semiconductor lasers with longitudinal e-beam pumping and their use in devices for recording information readout and display. IAE. Dissertation, 1982, 32 p. (KLDVA, 10/83, 15586).

29. Semenov, A.S.; Yeliseyev, P.G. (auth of reviewed book) (). Timely book on the fundamentals of laser diode physics [Review of book: Vvedeniye v fiziku inzhektsionnykh lazerov (Introduction to the physics of injection lasers) by P.G. Yeliseyev]. KVEKA, no. 9, 1983, 1951-1952.

30. Yeliseyev, P.G.; Kochetkov, A.A. (FIAN). Quick estimation of the service life of injection lasers and transmission modules. KVEKA, no. 10, 1983, 2118-2120.

31. Zibrov, A.S.; Zubkov, V.M.; Nikitin, V.V.; Perevalov, M.G. (FIAN). Stabilizing the frequency of an injection semiconductor laser by external confocal interferometry. KVEKA, no. 9, 1983, 1888-1889.

b. Miscellaneous homojunction

c. Miscellaneous heterojunction

32. Andreyev, V.M.; Zadiranov, Yu.M.; Rumyantsev, V.D.; Saradzhishvili, N.M.; Sulima, O.V. (FTI). Photoelectroluminescence in AlGaAs heterostructures. PZTFD, no. 17, 1983, 1058-1061.

33. Braginskaya, A.G.; Yelyukhin, V.A.; Kuchinskiy, V.I.; Nemenov, M.I.; Portnoy, Ye.L.; Skvortsov, A.M.; Sorokina, L.P. (FTI). Polarization characteristics of coherent radiation generated in multilayer heterostructures. ZTEFA, no. 9, 1983, 1843-1845.

34. Davarashvili, O.I.; Zlomanov, V.P.; Krialashvili, I.V.; Saginuri, M.I.; Chikovani, R.I.; Shotov, A.P. (). Conductivity type and composition of Pbl-xSnxSel-y epitaxial layers. DANKA, v. 272, no. 6, 1983, 1371-1374.

35. Dryapko, N.K.; Kovalenko, V.F.; Peka, G.P. (). Effect of isovalent In impurities on radiative recombination in GaAs. UFZHA, no. 9, 1983, 1424-1426.

18. Borisov, B.N.; Borodulina, O.S.; Kruzhilin, Yu.I.; Maslakov, S.Yu.; Mel'nikov, A.V. (). Periodic pulsed neodymium laser with wavefront-reversing stimulated Brillouin scattering mirrors and frequency doubling. KVEKA, no. 10, 1983, 2113-2115.

19. Golovin, A.D.; Lakhno, P.R.; Petrov, V.A. (MVTU). Formation of subnanosecond pulses in a YAG:Nd-isotope laser with an LiF(F2 negative ion) crystal Q-switch. MVTU. Trudy, no. 397, 1983, 4-10. (RZRAB, 83/9Yel30).

20. Krenert, Yu.; Soskin, M.S.; Khizhnyak, A.I. (IFANUk). Relationship of the lasing characteristics of YAG:Nd3+ crystals to their passive optical parameters. KVEKA, no. 25, 1983, 24-41.

21. Makovetskiy, A.A.; Tishchenko, R.P. (IRE). Estimating the cross-section for stimulated emission in a four-level active medium from its superluminescence quenching kinetics. KVEKA, no. 9, 1983, 1843-1850.

22. Malkov, A.N. (FIAN). Nd laser with a plasma mirror. FIAN. Dissertation, 1983, 17 p. (KLDVA, 10/83, 15318).

23. Varnavskiy, O.P.; Leontovich, A.M.; Mozharovskiy, A.M.; Solomatin, I.I. (FIAN). High-energy high-brilliance YAG:Nd laser with self mode-lock. KVEKA, no. 9, 1983, 1890-1892.

c. Er3+

24. Zhekov, V.I.; Lobachev, V.A.; Murina, T.M.; Prokhorov, A.M. (FIAN). Efficient cross-relaxation laser at 2.94 microns. KVEKA, no. 9, 1983, 1871-1874.

d. Ho3+

e. Tm3+

3. Semiconductor

a. Theory

25. Bayborodin, Yu.V.; Katkovskiy, O.B. (KPIA). Methods for designing the basic parameters and characteristics of a semiconductor injection laser. VKPRB, no. 20, 1983, 38-42. (RZRAB, 83/10Yel64).

26. Bogatov, A.P.; Yeliseyev, P.G.; Okhotnikov, O.G.; Rakhval'skiy, M.P.; Khayretdinov, K.A. (FIAN). Mode interaction and self-stabilization of single-frequency lasing in injection lasers. KVEKA, no. 9, 1983, 1851-1865.

138. Dement'yev, V.G.; Dudin, Yu.Yu.; Klementov, A.D.; Pendyur, S.A. (FIAN). Study on spectral characteristics of radiation from Xe2* and XeKr* excimers. KRSFA, no. 10, 1983, 35-38.

139. Dresvyannikov, V.G.; Fisun, O.I. (IED). "Runaway" electron current and the formation of spatial structures in excimer laser plasmas. ZTEFA, no. 10, 1983, 1952-1958.

140. Dubov, V.S.; Lapsker, Ya.Ye. (IVTAN). Feasibility of lasing from chemical radiative collisions. KVEKA, no. 9, 1983, 1877-1880.

141. Mikheyev, L.D. (FIAN). Optical pumping of gas lasers based on electron phototransfer processes. Review and conclusions. FIAN. Preprint, no. 296, 1983, 40 p.

142. Pastor, A.A.; Serdobintsev, P.Yu.; Shubin, N.N. (). Optical diagnostics of a pulsed transverse discharge plasma in inert gas mixtures with molecular additives. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 267-269.

143. Shevera, V.S.; Malinin, A.N.; Shuaibov, A.K. (). Study on excitation and quenching of B[sup 2]Sigma[sub 1/2] states of CdI* in a pulsed discharge through a dielectric. ZPSBA, v. 39, no. 3, 1983, 476-478.

144. Zuyev, V.S.; Kanayev, A.V.; Mikheyev, L.D. (FIAN). Optical inhomogeneities in a bleaching wave propagating in the active medium of a photochemical Kr2F laser. KVEKA, no. 9, 1983, 1868-1871.

D. CHEMICAL LASERS

1. Miscellaneous

145. Vasil'yev, G.; Markin, Ye.; Orayevskiy, A.; Tal'roze, V. (). Chemical lasers. NAUZA, no. 10, 1983, 50-57.

2. F2+H2(D2)

146. Baranov, V.Yu.; Vysikaylo, F.I., Dem'yanov, A.V.; Kochetov, I.V.; Malyuta, D.D.; Tolstov, V.F. (). Spectral-time and energy characteristics of a pulsed non-chain-reaction HF laser. KVEKA, no. 10, 1983, 2075-2081.

147. Bashkin, A.S.; Kiselevskiy, A.L.; Orayevskiy, A.N.; Tomashov, V.N.; Frolov, M.P.; Yuryshev, N.N. (FIAN). Efficiency of initiating a pulsed H2-F2 laser by photolysis or by e-beam. KVEKA, no. 10, 1983, 2126-2128.

148. Igoshin, V.I.; Pichugin, S.Yu. (FIANKuy; KuyGU). Chemical HF laser triggered by vaporization of finely dispersed particles under the effect of IR radiation. KVEKA, no. 9, 1983, 1922-1924.

3. Photodissociation

149. Bobrov, B.D.; Kiselev, V.M.; Grenishin, A.S. (). Effect of gasdynamic shock waves on the lasing kinetics of a flashlamp-pumped photodissociation iodine laser. KVEKA, no. 9, 1983, 1781-1786.

4. Transfer

150. Igoshin, V.I.; Pichugin, S.Yu. (FIAN). Numerical analysis of the dynamics of the photon branching process triggered in a DF-CO2 laser by IR vaporization of a disperse metal. FIAN. Preprint, no. 79, 1983, 19 p. (RZFZA, 83/10D1093).

151. Igoshin, V.I.; Pichugin, S.Yu. (FIAN). Numerical analysis of the dynamics of the photon branching process triggered in a DF-CO2 laser by resonant vibrational excitation of CH3F molecules. FIAN. Preprint, no. 75, 1983, 25 p. (RZFZA, 83/10D1092).

5. O2+I2

6. CS2+O2

7. SF6+H2

152. Bel'kov, Ye.P.; Dashuk, P.N.; Spichkin, G.L.; Fomin, V.M.; Chistov, Ye.K. (). Internal discharge stabilized by a dielectric in gas mixtures with a high SF6 content. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2, Leningrad, 1983, 363-365.

153. Karachevtsev, G.V.; Marutkin, A.Z.; Savkin, V.V.; Tal'roze, V.L. (). Ion molecular processes in SF6/H2O mixtures. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1, Leningrad, 1983, 126-128.

E. COMPONENTS

1. Miscellaneous

2. Resonators

a. Design and Performance

154. Arakelyan, S.M.; Karayan, A.S.; Chilingaryan, Yu.S. (). Dynamics of a Fabry-Perot resonator with a nematic liquid crystal. OPSPA, v. 55, no. 3, 1983, 507-512.

155. Lyubimov, V.V. (). Effect of small-scale perturbations on the correlation function for the field in an unstable resonator. KVEKA, no. 9, 1983, 1897-1899.

156. Sardyko, V.I. (IFANB). Effects of axial inhomogeneities in ring lasers. IFANB. Preprint, no. 287, 1982, 50 p. (RZFZA, 83/10D1154).

157. Semenov, V.Ye. (GOI). Numerical analysis of transverse field structure in optical resonators containing inhomogeneous and nonlinear elements. GOI. Dissertation, 1982, 13 p. (KLDVA, 10/83, 15346).

158. Sprachta, A. (). Laser with a slotted resonator. Author's certificate Czechoslovakia, no. 201658, 15 Jul 1982. (RZRAB, 83/10Ye150).

b. Mode Kinetics

3. Pump Sources

159. Alekseyev, I.A.; Baranov, G.A.; Butayev, Yu.B.; Volkov, V.N.; Zhilinskiy, A.P.; Zinchenko, A.K.; Karasev, B.G.; Kuteyev, B.V.; Nezhentsev, B.Yu.; Makarov, N.V.; Smirnov, A.S.; Frolov, K.S.; Shevchenko, Yu.I. (). Study on a high-frequency discharge in a gas flow. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 141-143.

160. Alferov, G.N.; Donin, V.I.; Shapiro, D.A. (). Discharge for ion lasers in a transverse gas flow. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 441-443.

161. Aubakirov, R.G.; Murzin, A.G.; Fromzel', V.A. (). Increasing the efficiency of intracavity laser pumping of selectively absorbing media. OPSPA, v. 55, no. 3, 1983, 501-506.

162. Bystritskiy, V.M.; Tolmachev, V.G. (NIIYaFEA). Ion beam. OIPOB, no. 28, 1982, 947929. (RZRAB, 83/10Ye448).

163. Dutu, D.C.A.; Dumitras, D.C. (). Power supply for an electric-discharge tube in a gas laser. Patent Romania, no. 77687, 30 Oct 1981. (RZRAB, 83/10Ye447).

164. Gadiyak, G.V.; Travkov, I.V.; Shveygert, V.A. (). Ignition of a self-sustained internal discharge. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 237-239.

165. Gavrilova, L.I.; Kovalev, V.F.; Pechenegov, S.M.; Trinchuk, B.F. (). Spectral distribution of radiation from coaxial high-frequency electrodeless krypton lamps. ZPSBA, v. 39, no. 3, 1983, 374-379.

166. Goykhman, V.Kh.; Pankova, R.B.; Pevzner, Ya.B. (). Processes near the cathodes in a glow discharge transverse to the gas flow. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 249-251.

167. Kolpakova, I.V. (). Spectral energy characteristics of arc lamps with alkali metal vapor. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 402-404.

168. Kuemmel, G. (). Laser device. Patent GDR, no. 158977, 9 Feb 1983. (RZRAB, 83/10Ye123).

169. Kulczuga, K. (). High-frequency current pulse generators for pumping high-power semiconductor lasers. Elektronika [Poland], no. 1-2, 1983, 38-45,79-80. (RZRAB, 83/9Ye397).

170. Machulka, G.A.; Repnikov, N.N.; Soboleva, S.D.; Chuzhko, R.K.; Tsyba, P.G.; Fenin, M.A.; Demichev, G.I. (). Sealed-off gas laser cathode and method for its fabrication. OIPOB, no. 40, 1983, 1051611.

171. Obidin, A.Z.; Pechenov, A.N.; Popov, Yu.M.; Frolov, V.A. (FIAN). Optical pumping of a CdS0.5Se0.5 laser by radiation from a CdS streamer laser. KVEKA, no. 9, 1983, 1942-1944.

172. Osykin, V.A.; Stepanov, V.A. (). Radial distribution of the plasma parameters in a high-frequency transverse discharge. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 144-146.

173. Patsevich, V.Ye. (). Charge from high-capacitance constant-power capacitor banks. VAFEA, no. 2, 1983, 93-96,127. (RZFZA, 83/10D874).

174. Roland, K.; Mory, S.; Ewers, R. (). Device for transverse pumping of dye lasers. Patent GDR, no. 158978, 9 Feb 1983. (RZRAB, 83/10Ye446).

175. Sulakshin, S.S. (ISE). Study on high-current ion pumping of gas lasers. ISE. Dissertation, 1983, 17 p. (KLDVA, 10/83, 15353).

176. Zavorotnyy, S.I.; Karpov, O.V.; Muzalevskiy, V.Ye.; Mkheidze, G.P.; Savin, A.A. (). Experimental laser scattering study on the concentration and temperature of a beam plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 288-290.

4. Cooling Systems

5. Deflectors

177. Gorshkov, G.F.; Gushcho, Yu.P.; Zubov, V.V. (MIREA). Device for deflecting a light beam. OIPOB, no. 2, 1983, 989519. (RZRAB, 83/10Ye226).

178. Semenkov, V.P.; Kheyniluoma, R.E. (). Piezoceramic deflector. OIPOB, no. 36, 1983, 1045207.

6. Attenuators

7. Collimators

8. Diffraction Gratings

179. Novodvorskiy, O.A.; Korn, G.; Zorov, N.B.; Kuzyakov, Yu.Ya.; Pol'ze, S. (MGU). Study on the lasing characteristics of a longitudinally pumped laser with a holographic grating at a grazing angle. KVEKA, no. 10, 1983, 1997-2001.

180. Peysakhson, I.V.; Chernyak, N.Yu. (). Correction for aberration in a symmetrical monochromator with a concave holographic diffraction grating. OPSPA, v. 55, no. 4, 1983, 737-741.

181. Rykhlov, A.F. (LPI). Diffraction of light by holographic volume phase gratings. LPI. Dissertation, 1982, 20 p. (KLDVA, 9/83, 13986).

9. Focusers

182. Danilov, V.A.; Popov, V.V.; Prokhorov, A.M.; Sagatelyan, D.M.; Sisakyan, Ye.V.; Sisakyan, I.N.; Soyfer, V.A. (FIAN). Optical elements focusing coherent radiation into an arbitrary focal line. FIAN. Preprint, no. 69, 1983, 41 p. (RZFZA, 83, 9D945).

10. Windows

11. Polarizers

183. Gavrilov, N.I.; Pashinin, P.P.; Prokhorov, A.M.; Prilyuk, O.M.; Sergeyev, S.N.; Serov, R.V.; Furman, Sh.A.; Yanovskiy, V.P.; Vvedenskiy, V.D. (FIAN). Damage resistant thin-film interference polarizers for high-power lasers. KVEKA, no. 9, 1983, 1914-1916.

12. Amplifiers

13. Lenses

14. Filters

184. Suslikov, L.M.; Gad'mashi, Z.P.; Slivka, V.Yu. (). Cadmium thiogallate optical filter. OPSPA, v. 55, no. 4, 1983, 748-752.

15. Beam Splitters

185. D'yachenko, N.G.; Mandel', V.Ye.; Tyurin, A.V.; Nechayeva, T.A. (OGU). Beam splitter. OIPOB, no. 41, 1983, 1053056.

16. Mirrors

186. Bespalov, V.I.; Kulagina, S.N.; Manishin, V.G.; Pasmanik, G.A. (IPF). Self-pumping resonators with four-wave hypersonic reversing mirrors. KVEKA, no. 9, 1983, 1776-1781.

187. Kharitonov, V.V.; Koshelev, S.B. (). Thermoelastic stability of cooled laser mirrors. INFZA, v. 45, no. 4, 1983, 640-646.

188. Smirnova, V.A.; Pridatko, G.D. (). Two-component interference coatings. Optical properties and application. OPSPA, v. 55, no. 4, 1983, 742-747.

189. Specht, E. (). Mirror polygon. Patent GDR, no. 158961, 9 Feb 1983. (RZRAB, 83/10Ye441).

17. Detectors

190. Dubitskiy, A.L.; Kuznetsova, Ye.M.; Osipov, V.V. (GOI). Coherent image reception. OPMPA, no. 9, 1983, 46-49.

191. Pohlack, H. (). Resonance absorber. Patent GDR, no. 152638, 2 Dec 1981. (RZRAB, 83/9Ye417).

192. Renschen, C. (). Device for changing the intensity of light in photodetectors. Patent GDR, no. 159182, 16 Feb 1983. (RZRAB, 83/10Ye431).

193. Schielicke, R. (). Positional detector for weak point light sources. FGRTA, no. 4, 1983, 158-161. (RZRAB, 83/386).

194. Stanciu, I. (). Reversible parabolic lens for detecting laser radiation nonparallel to the axis of the lens. SCEFA, no. 2, 1983, 177-184. (RZFZA, 83/10D1141).

195. Zakharov, S.Ya.; Tamashyavichyus, A.V.; Shatkovskiy, Ye.V. (). The IDP-1 semiconductor photodetector. PRTEA, no. 5, 1983, 232.

196. Zhimskaya, N.V.; Fedorova, Ye.I.; Starchayeva, Ye.Ye.; Perevozchikov, A.N. (IMFS). Spectral characteristics of KEDR-2 photodetectors made from germanium doped with gold. PRTEA, no. 5, 1983, 208-209.

18. Modulators

197. Akimov, Yu.A.; Krutyakov, Yu.A.; Stepanov, B.M.; Fel'dman, N.B. (). DKDP-crystal spatial light modulator. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. $VNIFTRI. Moskva, 1982, 13-20. ($RZRAB, 83/9Ye203).

198. Andreyanov, Yu.P.; Minayev, V.P.; Semenov, A.V. (). An E-O Q-switch for nonpolarized radiation in a laser with intracavity second harmonic generation in crystals exhibiting an aperture effect. KVEKA, no. 10, 1983, 2131-2132.

199. Angelov, A.K.; Bakin, D.V.; Zolotov, Ye.M.; Prokhorov, A.M.; Shcherbakov, Ye.A. (FIAN). Study of a Bragg modulator with an apodized electrode structure based on Ag:LiTaO3 waveguides. KVEKA, no. 10, 1983, 1965-1969.

200. Antsygin, V.D.; Kostsov, E.G.; Sterelyukhina, L.N. (). Pulsed E-O light modulation in thin ferroelectric films. AVMEB, no. 5, 1983, 98-100.

201. Bondarev, L.A.; Budagyan, I.F.; Budrovin, V.F.; Ivanov, G.A.; Mirovitskiy, D.I.; Povetkin, V.A. (MIREA). Converter of multimode e-m radiation to single mode. OIPOB, no. 1, 1983, 987557. (RZRAB, 83/10Ye456).

202. Buritskiy, K.S.; Zolotov, Ye.M.; Kazanskiy, P.G.; Chernykh, V.A. (FIAN). E-O modulator based on Ti:LiNbO3 channeled waveguides coupled with Delta-Beta electrodes. ZTEFA, no. 9, 1983, 1880-1882.

203. Demchuk, M.I.; Vishnevskiy, V.N.; Mikhaylov, V.P.; Yumashev, K.V. (IFANB). Device for synchronizing the "Agat" E-O camera. VBMFA, no. 3, 1983, 64-65.

204. Eberlein, D.; Schwerdtner, A. (). Modulated broadband Fresnel zone plate. Patent GDR, no. 159221, 23 Feb 1983. (RZRAB, 83/9Ye423).

205. Gusev, O.B. (). Designing Chebyshev matching circuits for piezoconverters of acoustic light modulators. Metody i ustroystva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 116-122.

206. Gushcho, Yu.P.; Gavrilov, V.N.; Myagkov, A.A.; Speranskiy, O.A. (MIREA). Optical modulator. OIPOB, no. 34, 1983, 1041978.

207. Ivanov, I.Ts.; Shestakov, B.A.; Yani, Ya. (OIYaI). Timer for laser pulses. OIYaI. Soobshcheniye, no. R13-83-197, 1983, 4 p. (RZFZA, 83/10D1161).

208. Khiminets, V.V. (UZhGU). Chalcogenide glasses: promising materials for quantum electronics. Part 3. Possibilities of practical application. KVELA, no. 25, 1983, 63-76.

209. Marakhonov, V.I. (FTI). Method for modulating light. OIPOB, no. 36, 1983, 963394.

210. Merkishin, G.V. (). Shaping of a reference beam by a ring aperture. RATEA, no. 5, 1983, 75-77. (RZRAB, 83/10Ye453).

211. Mikhaylov, V.P.; Demchuk, M.I.; Yumashev, K.V.; Avdeyeva, V.I. (NIIPFP). Study on passive Q-switches for picosecond laser technology based on dye number 1000. DBLRA, no. 9, 1983, 809-812.

212. Muravitskiy, M.A.; Borshchiyevskiy, V.M. (). Device for controlling an E-O Q-switch for a double-pulsed laser. PRTEA, no. 5, 1983, 221.

213. Nagayev, A.I.; Khorev, A.A.; Shchekoturov, L.V. (). Wideband videoamplifier for an e-beam spatial light modulator. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 83-86. (RZRAB, 83/9Ye205).

214. Nagayev, A.I.; Parygin, V.N.; Pashin, S.Yu. (). Dependence of the resolving power of a space-time light modulator on the orientation of the optical axis of the DKDP crystal. FOOSD, no. 14, 1983, 106-113.

215. Parygin, V.N.; Suslov, A.M. (MGU). E-beam space-time Bi12SiO2 optical modulator. KVEKA, no. 9, 1983, 1937-1940.

216. Pletneva, N.I.; Morichev, I.Ye.; Vladimirov, F.L.; Basyayeva, L.I. (). Optical space-time modulator based on a photoconductor-liquid crystal structure with a fiberoptic element. KVEKA, no. 9, 1983, 1892-1895.

217. Schubert, D.; Scharz, J. (). Method and device for directional compensation in a dye laser. Patent GDR, no. 152661, 2 Dec 1981. (RZRAB, 83/9Ye419).

218. Shchekoturov, L.V. (MGU). Study on the physical characteristics of the operation of electrooptic-crystal-based e-beam spatial light modulators. MGU. Dissertation, 1983, 14 p. (KLDVA, 10/83, 15375).

219. Vogel, J. (). Tunable modulator. Patent GDR, no. 158432, 12 Jan 1983. (RZRAB, 83/9Ye209).

220. Voytovich, A.P. (IFANB). Phase methods for controlling the spectrum of laser radiation. DBLRA, no. 9, 1983, 798-800.

221. Vvedenskiy, V.D.; Levit, A.L.; Ovchinnikov, V.M.; Stolov, Ye.G. (). Phase shifter. OIPOB, no. 1, 1983, 987558. (RZRAB, 83/10Ye457).

222. Walter, B. (). Simultaneous multiple optical beam modulation system. Patent GDR, no. 157123, 13 Oct 1982. (RZRAB, 83/9Ye208).

223. Wiederhold, G.; Zschocke, W. (). Method for mode-locking and Q-switching of a solid state laser. Patent GDR, no. 158293, 5 Jan 1983. (RZRAB, 83/10Ye219).

224. Zemlyanskiy, V.M.; Lossovskiy, V.A. (KIIGA). Device for single-band modulation. OIPOB, no. 34, 1982, 959104. (RZRAB, 83/10Ye223).

F. NONLINEAR OPTICS

1. General Theory

225. Akopyan, R.S.; Zel'dovich, B.Ya. (IPMe). Orientational optical nonlinearity in a liquid crystal due to thermal convection. PZTFD, no. 19, 1983, 1200-1204.

226. Andreychuk, A.Ye.; Dorozhkin, L.M.; Krasilov, Yu.I.; Maslyanitsyn, I.A.; Portnova, S.M.; Soboleva, L.V.; Khapayeva, L.I.; Chayanov, B.A.; Shigorin, V.D.; Shipulo, G.P. (FIAN). Nonlinear optical properties of yttrium formiate dihydrate crystals. KRISA, no. 5, 1983, 922-924.

227. Baryshevskiy, V.G. (). Superradiance (collective spontaneous emission) of photons by atoms moving in matter. DBLRA, no. 6, 1983, 505-508. (RZFZA, 83/10D1014).

228. Bel'dyugin, I.M.; Galushkin, M.G.; Zemskov, Ye.M. (). Propagation of spatially inhomogeneous radiation in nonlinear resonant media. KVEKA, no. 10, 1983, 2066-2070.

229. Chirkin, A.S.; Yusubov, F.M. (MGU). Spatial coherence of random light beams during thermal blooming. KVEKA, no. 9, 1983, 1833-1842.

230. Drozhov, Yu.P. (). Nonlinear susceptibility of impurity centers in semiconductors. PSSBB, v. B116, no. 1, 1983, 111-118. (RZFZA, 83/10Ye1544).

231. Fedorov, A.A. (GOI). Nonlinear phenomena in disordered activated crystals under laser excitation. GOI. Dissertation, 1982, 20 p. (KLDVA, 9/83, 14069).

232. Garayev, R.A. (MFTI). Nonlinear interactions in a laser radiation field with a regular spatial structure. MFTI. Dissertation, 1982, 17 p. (KLDVA, 9/83, 13924).

233. Goncharova, O.V.; Karpushko, F.V.; Sinitsyn, G.V. (IFANB). Role of surface energy states in the formation of nonlinear optical properties of polycrystal media. IFANB. Preprint, no. 290, 1983, 25 p. (RZFZA, 83/9D1303).

234. Laptev, V.D. (). Effect of spatial inhomogeneity on the kinetics and spectrum of a superradiant pulse in an extended system. OPSPA, v. 55, no. 4, 1983, 754-757.

235. Masalov, A.V. (FIAN). Nonlinear phenomena in a nonmonochromatic field and the problem of measuring. FIAN. Preprint, no. 287, 1983, 19 p.

236. Nikitin, S.Yu. (MGU). Scattering and conversion of laser radiation by coherent molecular vibrations. MGU. Dissertation, 1983, 24 p. (KLDVA, 10/83, 15325).

237. Vo Hong Anh (OIYaI). Electron-phonon interaction and the generalized kinetic equation for systems interacting with high-intensity e-m wave fields. OIYaI. Preprint (in English), no. Ye17-83-293, 1983, 10 p. (RZFZA, 83/10Ye1538).

238. Zuykov, V.A.; Samartsev, V.V.; Trayber, A.S. (). Reverse light echo study on relaxation processes in ruby in a null magnetic field. OPSPA, v. 55, no. 4, 1983, 601-603.

2. Frequency Conversion

239. Dmitriyev, V.G.; Kopylov, S.M. (). Second harmonic generation of quasi-single-mode laser radiation under intense energy exchange. KVEKA, no. 10, 1983, 2008-2013.

240. Gridin, V.A.; Mavritskiy, O.B.; Petrovskiy, A.N. (MIFI). Second harmonic generation of picosecond laser pulses in a diffusion waveguide with vector phase synchronization. PZTFD, no. 19, 1983, 1185-1188.

241. Popescu, I.M.; Puscas, N.; Sterian, P. (). Equations of coupled amplitudes for describing the generation of seventh harmonics in homogeneous nonlinear optical media. RTTLA, no. 9, 1982, 84-87. (RZFZA, 83/10D1182).

242. Skorobogatov, G.A. (LGUNIIKhim). Increasing the frequency of laser radiation up to a wavelength of approximately 1 nm by three-photon stimulated scattering. KVEKA, no. 9, 1983, 1800-1805.

243. Stepanov, V.A. (FIAN). Superconducting point contact as a nonlinear element for synthesizing microwave and laser frequencies. FIAN. Dissertation, 1983, 22 p. (KLDVA, 10/83, 15352).

3. Parametric Processes

244. Aleksandrov, A.V.; Solomatin, V.S. (MGU). Four-photon parametric upconversion during monochromatic and noisy pumping under conditions of weak and strong dispersion in sodium vapors. KVEKA, no. 10, 1983, 2121-2123.

245. Avetisyan, S.K.; Kazaryan, E.M.; Melikyan, A.O.; Minasyan, G.R. (). Parametric generation of submillimeter radiation in semiconductors in the field of a bichromatic pulse. PSSBB, v. B116, no. 2, 1983, 455-463. (RZFZA, 83/9D1318).

246. Baryshevskiy, V.G.; Gorcharuk, I.M. (IFANB). Parametric conversion of gamma quanta in molecular gases. VBMFA, no. 3, 1983, 24-27.

247. Birmontas, A.; Piskarskas, A.; Stabinis, A. (VilGU). Dispersion anomalies in tuning characteristics and the optical parametric lasing spectrum. KVEKA, no. 9, 1983, 1881-1884.

248. Chaplik, A.V. (). Parametric generation of vibrations in a two-dimensional electron plasma. Poverkhnost'. Fizika, khimiya, mekhanika, no. 4, 1983, 5-8. (RZFZA, 83/9D1315).

249. Hamal, K.; Kabelka, V.; Kubecek, V.; Gamal, K. (translit); Kubechek, V. (translit). (IFANLi). Direct measurement of the shape and duration of picosecond pulses from an optical parametric oscillator. KVEKA, no. 10, 1983, 2092-2094.

250. Kolesnikov, E.P.; Mukimov, K.M.; Tron'ko, V.D. (KGU). Parametric optical phenomena in magnetically ordered media occurring at levels of ferromagnetic resonance. KVELA, no. 25, 1983, 76-86.

4. Stimulated Scattering

a. Miscellaneous Scattering

251. Gorelik, V.S.; Ivanova, S.V.; Naumova, I.I. (FIAN). Anomalous intensities of Rayleigh and quasielastic optical scattering near points of phase transition in barium-sodium niobate crystals. KRSFA, no. 10, 1983, 8-13.

252. Ragul'skiy, V.V. (). Relative power of noise and reversed components of stimulated optical scattering. OPSPA, v. 55, no. 3, 1983, 589-591.

253. Vaksman, M.A.; Gayner, A.V. (). Generation of sound and stimulated optical scattering in a gas during velocity-selective optical pumping. PZTFD, no. 19, 1983, 1174-1177.

b. Raman

254. Apanasevich, P.A.; Karpenko, S.G.; Marchevskiy, F.N.; Orlovich, V.A.; Strizhevskiy, V.L. (IFANB; KGU). Generation of stimulated Raman pulses inside a laser resonator. KVELA, no. 25, 1983, 13-24.

255. Averbakh, V.S.; Makarov, A.I.; Potemkin, A.K.; Talanov, V.I. (IPF). Polarization properties of rotational stimulated Raman scattering in media with weak dispersion. IVYRA, no. 9, 1983, 1182-1184.

256. Bobyr', A.V.; Gorban', I.S.; Gubanov, V.A.; Salivon, G.I.; Sushkevich, T.N.; Frizel', V.V. (KGU). Raman scattering of light and vibrational mode symmetry in SnI4 crystals. UFZHA, no. 9, 1983, 1327-1334.

257. Gorelik, V.S.; Zolotukhin, O.G.; Moskaleva, T.V.; Sushchinskiy, M.M. (FIAN). Stimulated Raman scattering by transverse and longitudinal lattice vibrations in LiNbO3 and LiTaO3. KVEKA, no. 9, 1983, 1949-1950.

258. Korniyenko, N.Ye.; Steba, A.M.; Strizhevskiy, V.L. (). Generation of Stokes and anti-Stokes waves induced by two-photon illumination. OPSPA, v. 55, no. 3, 1983, 555-558.

b. Brillouin

259. Grigor'yants, V.V.; Smirnov, V.I. (IRE). Stimulated Brillouin scattering in fiber lightguides. KVEKA, no. 10, 1983, 2002-2008.

260. Krivoshchekov, G.V.; Stupak, M.F. (IAESOAN). Simultaneous and separate excitation of stimulated Brillouin scattering and stimulated thermal scattering. KVEKA, no. 10, 1983, 2071-2075.

261. Pilipetskiy, N.F.; Popovichev, V.I.; Ragul'skiy, V.V. (IPMe). Angular distribution of the noise component in stimulated optical scattering. KVEKA, no. 10, 1983, 1969-1975.

262. Sidorovich, V.G. (). Theory on collective processes in the excitation of stimulated scattering by incoherent optical radiation. OPSPA, v. 55, no. 4, 1983, 700-706.

263. Vasil'yev, M.V.; Venediktov, V.Yu.; Leshchev, A.A.; Semenov, P.M.; Sidorovich, V.G.; Shlyapochnikova, N.S. (). Nonlinear processes competing with stimulated Brillouin scattering. ZTEFI, no. 10, 1983, 1979-1985.

264. Zozulya, A.A.; Silin, V.P.; Tikhonchuk, V.T. (FIAN). Theory of stimulated Brillouin scattering in a rarefied inhomogeneous plasma. FIAN. Preprint, no. 98, 1983, 24 p. (RZFZA, 83/9G57).

265. Zozulya, A.A.; Silin, V.P.; Tikhonchuk, V.T. (FIAN). Stimulated Brillouin scattering in a plasma with reflective boundaries. KRSFA, no. 10, 1983, 38-43.

d. Rayleigh

5. Self-focusing

266. Orlov, Ye.P. (FIAN). Possibility of thermal self-focusing of optical beams from the effect of light on chemical reactions. KVEKA, no. 10, 1983, 2085-2089.

6. Acoustic Interaction

267. Akimov, A.V.; Baklanova, V.N.; Kaplyanskiy, A.A. (). Relaxation kinetics for electronic excitation and nonequilibrium acoustic phonons in CaF2-Dy2+,Eu2+ crystals. OPSPA, v. 55, no. 3, 1983, 564-566.

268. Aksenov, Ye.T.; Vodovatov, I.A.; Yesepkina, N.A.; Rogov, S.A. (). Feasibility of using acoustooptic modulators with superimposed ultrasonic beams in optical information processing systems. RAELA, no. 9, 1983, 1846-1853.

269. Berezhinskiy, L.I. (IPANUk). Theoretical group analysis of the vibrational spectrum of TeO2. KVELA, no. 25, 1983, 86-90.

270. Chaban, A.A. (). Acoustophotorefractive memory in non-centrosymmetric crystals. FTVTA, no. 9, 1983, 2714-1717.

271. Deryugin, I.A.; Pogibel'skiy, A.P.; Simakov, A.N. (). Effect of acoustooptic diffraction on the spatial coherence of light. ZTEFA, no. 9, 1983, 1856-1858.

272. Dombarkas, A.A. (VilGU). Acoustoelectric instability and acoustooptic interaction in indium antimonide. VilGU. Dissertation, 1982, 16 p. (KLDVA, 9/83, 13937).

273. Drzewiecka, M.A.; Szustakowski, M. (). Image conversion by an acoustic wave. Archiwum akustyki, no. 1, 1982, 29-41. (RZFZA, 83/9Zh685).

274. Dykhne, A.M.; Rysev, B.P. (). Possibility for excitation of high-amplitude elastic surface waves in a solid under the thermal action of laser radiation. Poverkhnost'. Fizika, khimiya, mekhanika, no. 6, 1983, 17-21. (RZFZA, 83/9Zh623).

275. Klima, M. (). Acoustooptic laser beam modulator. SDTEA, no. 4, 1983, 137-139. (RZFZA, 83/9Yel99).

407. Kondrashov, V.N.; Rasponin, A.N.; Rudnitskiy, Yu.P.; Sitnikov, S.F.; Sokolov, V.I. (IEM). Developmental dynamics of a long laser spark. IEM. Trudy, no. 31(105), 1983, 110-119.

408. Kostin, B.S.; Naats, I.E. (IOA). Feasibility of studying the bimodal spectra of ground aerosols by a three-frequency lidar. IFAOA, no. 10, 1983, 1091-1095.

409. Lezhen, A.S. (). Experimental coherent optical studies on the microstructure of turbulence. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 191-193.

410. Lipskaya, O.A.; Semenov, L.P. (IEM). Effect of scattered radiation on temperature change in a cleared cloud medium. IEM. Trudy, no. 31(105), 1983, 85-89.

411. Makiyenko, E.V.; Naats, I.E. (IOA). Determining the optical characteristics of stratospheric aerosols by multifrequency laser probing. IFAOA, no. 9, 1983, 991-994.

412. Makushkin, Yu.S.; Yakovlev, N.Ye. (). Automated system for solving problems of molecular spectroscopy and the interaction of laser radiation with the atmosphere. CVShANIs, 16th, Gor'kiy, 17-28 May 1982. Materialy. IPF. Gor'kiy, 1982, 177-184.

413. Mamonov, V.K. (IEM). Breakdown of air initiated by weakly absorbing particles of a liquid droplet aerosol. IEM. Trudy, no. 31(105), 1983, 48-54.

414. Mamonov, V.K. (IEM). Optical breakdown in transparent liquid media and phenomena associated with it (review). IEM. Trudy, no. 31(105), 1983, 35-48.

415. Mamonov, V.K. (IEM). Propagation of pulsed laser radiation through a disperse medium during the development of breakdown in the particles. IEM. Trudy, no. 31(105), 1983, 78-81.

416. Mazurov, I.V.; Sivovolov, V.A.; Fadeyev, V.V.; Chubarov, V.V. (). Remote laser probing of petroleum products in water and on its surface. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 200-204.

417. Mitev, V.M.; Nitsolov, S.L. (). Raman lidar measurements of the atmospheric temperature. Bolgarskiy fizicheskiy zhurnal, no. 1, 1983, 86-87. (RZFZA, 83, 10D1267).

396. Almayev, R.Kh.; Svirkunov, P.N.; Slesarev, A.G. (IEM). Refraction of laser radiation through a cleared droplet aerosol. IEM. Trudy, no. 31(105), 1983, 89-96.

397. Banakh, V.A.; Buldakov, V.M. (). Effect of the initial degree of spatial coherence of an optical beam on fluctuations in intensity in a turbulent atmosphere. OPSPA, v. 55, no. 4, 1983, 707-712.

398. Belen'kiy, M.S.; Ivanov, A.K.; Kopytin, Yu.D. (). Partially coherent reception of laser echo signals in a turbulent atmosphere. VINITI. Deposit, no. 1583-83, 1983. (IVUFA, no. 9, 1983, 120).

399. Budnik, A.P. (IEM). Effect of quantum effects and electron-electron collisions on the electron energy distribution in an optical breakdown plasma. IEM. Trudy, no. 31(105), 1983, 31-35.

400. Budnik, A.P.; Svirkunov, P.N. (IEM). Propagation of ionizing waves of electrons during optical breakdown. IEM. Trudy, no. 31(105), 1983, 25-30.

401. Bychkov, S.I.; Pavlov, V.N.; Shevyakov, M.M. (). Characteristics of optical information-measuring channels using scattering effects. IVUZB, no. 9, 1983, 10-14.

402. Chudnovskiy, V.S. (IFZ). Optimum time of day for measuring distances with an optical rangefinder in a turbulent atmosphere (for the case of significant splitting of the laser beam by underlying surfaces). IVYRA, no. 10, 1983, 1307-1308.

403. Gavrilov, V.M.; Golub, S.L.; Skripkin, A.M. (IEM). Optimal conditions for laser spectrochemical analysis of aerosols. IEM. Trudy, no. 31(105), 1983, 54-60.

404. Gerasimov, B.P.; Yelizarova, T.G.; Sukhorukov, A.P. (IPM). Numerical study on thermal blooming of an optical beam in a moving medium. ZTEFA, no. 9, 1983, 1696-1705.

405. Godlevskiy, A.P.; Ivanov, A.K.; Kopytin, Yu.D. (). Remote gas analysis of a real atmosphere based on intracavity laser reception of scattered radiation. VINITI. Deposit, no. 1725-83, 1983. (IVUFA, no. 10, 1983, 121).

406. Ivanov, V.N.; Korovin, V.Ya.; Uvarov, A.D. (IEM). Interaction of laser radiation with oxidizing aerosol media. IEM. Trudy, no. 31(105), 1983, 81-85.

385. Deryugina, A.I.; Kurashov, V.N. (KGU). Depolarization of partially coherent radiation by birefringent optical elements. KVELA, no. 25, 1983, 99-105.

386. Golubev, Yu.M. (LGU). Noise from light scattered and emitted in gas media. LGU. Dissertation, 1982, 24 p. (KLDVA, 9/83, 13882).

387. Ivashchenko, M.I.; Panov, V.P. (). Propagation of a beam in a moving medium with thermal nonlinearity. KVEKA, no. 10, 1983, 2027-2032.

388. Kalechits, V.I. (MIFI). Study on the interaction of electromagnetic radiation with fluctuations in the shape of liquid droplets. MIFI. Dissertation, 1982, 19 p. (KLDVA, 9/83, 13948).

389. Kudryavtsev, A.N.; Solov'yev, A.S.; Yanenko, N.N. (ITPM). Evolution of a solitary wave in a single nonconservative dispersive system. ITPM. Preprint, no. 3, 1983, 13 p. (RZFZA, 83/10D1195).

390. Makogon, M.M.; Ponomareva, S.B.; Ponomarev, Yu.N. (). Study on the nonlinear transmission of laser radiation by a gas in a multipass cuvette. VINITI. Deposit, no. 3024-83, 3 Jun 1983, 15 p. (RZFZA, 83/9D1306).

391. Maymistov, A.I.; Manykin, E.A. (MIFI). Propagation of ultrashort optical pulses in resonant nonlinear lightguides. ZETFA, v. 85, no. 4, 1983, 1177-1181.

392. Molodtsov, S.N. (). Frequency correlation of optical radiation propagating in a medium with small-scale random inhomogeneities. RAELA, no. 10, 1983, 1895-1899.

393. Remizovich, V.S.; Rogozkin, D.B.; Ryazanov, M.I. (MIFI). Propagation of a pulsed optical signal in a turbid medium. IFAOA, no. 10, 1983, 1053-1061.

394. Senderakova, D.; Vojtek, P. (). Thermal change of the refractive index of a linear absorber by an intense light wave. APSVC, no. 2, 1983, 105-114. (RZFZA, 83/9D1305).

2. Propagation in the Atmosphere

395. Almayev, R.Kh.; Semenov, L.P. (IEM). Effect of longitudinal inhomogeneity in a cleared zone on the fluctuational characteristics of partially coherent probing radiation. IEM. Trudy, no. 31(105), 1983, 96-105.

375. Renschen, C.; Norkus, V. (). Device for stabilization of light intensity in optical communications lines. Patent GDR, no. 157367, 3 Nov 1982. (RZRAB, 83/10Ye408).

376. Renschen, C.; Norkus, V. (). Method for branching of light. Patent GDR, no. 157282, 27 Oct 1982. (RZRAB, 83/9Ye371).

377. Smolinski, A. (). Single-polarization single-mode lightguides. Elektronika [Poland], no. 1-2, 1983, 22-26,79-80. (RZFZA, 83/10D344).

378. Stoeckel, K.G.; Schmidt, D. (). Integrated optical device. Patent GDR, no. 157583, 17 Nov 1982. (RZRAB, 83/9Ye283).

379. Tishchenko, A.V. (MFTI). Study on stripe and periodic structures for integrated optics. MFTI. Dissertation, 1983, 13 p. (KLDVA, 10/83, 15357).

380. Vaysleyb, Yu.V.; Braude, V.B.; Ponomarev, A.L. (EIS). Device for radiation output. OIPOB, no. 38, 1982, 966650. (RZRAB, 83/10Ye292).

381. Voytenkov, A.I.; Mogilevich, V.N. (IFANBMO). Determining the profile of the refractive index in low-mode planar waveguides. KVEKA, no. 10, 1983, 2128-2130.

382. Voytik, M.G.; Gorshkov, B.G.; Kutakhov, V.P.; Sen'ko, V.V. (VVIAZhuk). Effect of heating on optical losses in a bent fiberoptic lightguide. ZTEFA, no. 9, 1983, 1791-1796.

383. Zolotov, Ye.M. (FIAN). Integrated optical elements based on diffused titanium waveguides in lithium niobate. FIAN. Dissertation, 1983, 33 p. (KLDVA, 10/83, 15254).

C. BEAM PROPAGATION

1. Theory

384. Anur'yev, Ye.A.; Puzyrev, V.V. (). Determining the magnitude of a noise signal caused by the reflection of a radiation source flux from optical surfaces of optoelectronic rangefinders. Opticheskiye i optiko-elektronnyye pribory. NIIGAiK. Novosibirsk, 1982, 123-144. (RZRAB, 83/9Ye463).

363. Liferenko, V.D.; Markov, Yu.V.; Khrykin, V.T.; Sokhranskiy, S.S.; Lukin I.A. (). Equipment for a linear section of digital lightguide transmission systems. EKVZA, no. 5, 1983, 35-38. (RZRAB, 83/10Ye329).

364. Livshits, V.Ya.; Kozyrev, V.K. (). Discrete nature of relaxation of variation in the refractive index of graded-index glass during isothermic high-temperature ion-exchange. ZPSBA, v. 39, no. 4, 1983, 663-667.

365. Marciniak, H. (). Elastooptic effect in a bent slab waveguide. OPAPB, no. 2, 1982, 165-172. (RZRAB, 83/9Ye261).

366. Mikheyev, P.A. (GOI). Calculation of spectral prisms for fiberoptic control systems. OPMPA, no. 9, 1983, 12-14.

367. Nakwaski, W. (). Efficiency of coupling an injection laser to a fiber lightguide by means of a microlens. RZETA, no. 1-2, 1982, 233-245. (RZRAB, 83/10Ye304).

368. Nakwaski, W. (). Injection lasers in optical telecommunications. RZETA, no. 4, 1981, 1173-1186. (RZRAB, 83/9Ye287).

369. Orosz, J.; Romaniuk, R. (). Multiple crucible fabrication of multilayer fiber lightguides with a complex refraction profile. Elektronika [Poland], no. 1-2, 1983, 27-31, 79-80. (RZRAB, 83/10Ye389).

370. Plotnichenko, V.G.; Sysoyev, V.K.; Firsov, I.G. (GOI). Cesium iodide: a promising material for fiberoptic lightguides with applications in the visible and IR spectral regions. OPMPA, no. 9, 1983, 23-26.

371. Popkova, L.I.; Popkov, O.I. (). Constructing systems for gathering vibroacoustic information by means of fiberoptic communications lines. Akustika sudov i okeana. Leningrad, 1982, 107-112. (RZFZA, 83/9Zh625).

372. Potapov, V.T.; Sokolovskiy, A.A.; Sosnin, V.P.; Nishchev, G.I. (). Experimental study on a fiberoptic directional coupler. RAELA, no. 10, 1983, 2082-2084.

373. Prokhorov, V.P.; Spiridenko, L.I.; Yakovenko, P.A. (). Numerical evaluation and analysis of the fundamental characteristics of integrated optical directional couplers. AVMEB, no. 5, 1983, 90-97.

374. Regan, Y.P. (). Digital technology and lightguide transmission in communications technology. ZRBEA, no. 5, 1983, 84-89. (RZRAB, 83/10Ye347).

351. Gornyy, M.B.; Matisov, B.G. (). Optimizing the amplitude-frequency rise-time characteristics for optically pumped discriminators. RAELA, no. 9, 1983, 1783-1787.

352. Grigor'yants, V.V. (). Fiber lightguides: present and future. PAKBA, no. 2, 1983, 39-41. (RZFZA, 83/10D927).

353. Grudin, O.M.; Zargar'yants, M.N. (). Dependence of optical communications distances on the thickness of waveguide layers in a semiconductor heterostructure. ZTEFA, no. 10, 1983, 2090-2092.

354. Hartmann, J.; Schmidt, K. (). Optoelectronic semiconductor instrument with a coupled lightguide. Patent GDR, no. 157382, 3 Nov 1982. (RZRAB, 83/9Ye369).

355. Junghanns, F.; Weissbach, B. (). Collar for joining the ends of optical fibers in couplers. Patent GDR, no. 157478, 10 Nov 1982. (RZRAB, 83/9Ye365).

356. Kalugin, M.M.; Kozlov, G.V.; Terent'yev, V.Ye.; Shulekin, S.F. (GOI). Study on the optical strength of fiberoptic elements. OPMPA, no. 9, 1983, 10-11.

357. Kanka, J.; Hora, J. (). Backscatter diagnostics of optical fibers. SLOZA, no. 3, 1983, 105-111. (RZRAB, 83/9Ye221).

358. Kitayev, Yu.V. (LITMO). Monitoring the shape of sections in the extrusion process of optical fiber. VINITI. Deposit, no. 4191-83, 26 Jul 1983, 4 p. (RZRAB, 83/10Ye401).

359. Kolosovskiy, Ye.A.; Petrov, D.V.; Yakovkin. I.B. (IFPSOAN). Quantitative analysis of light propagation in inhomogeneous anisotropic waveguides. KVEKA, no. 9, 1983, 1786-1792.

360. Komitov, L.K.; Suynov, S.Kh.; Suynov, V.Kh. (). Fiberoptic switch. Author's certificate Bulgaria, no. 31755, 23 Mar 1981. (RZRAB, 83/10Ye295).

361. Korotich, A.G.; Ustinov, S.A. (). Use of fiberoptic cables in subscription communication lines. Tsifrovyye i analogichnyye sistemy peredachi. Moskva, 1982, 70-74. (RZRAB, 83, 9Ye298).

362. Kutakhov, V.P.; Khatin, G.A.; Yaremchuk, V.A. (). Constructing a fiberoptic network for data retrieval. RATEA, no. 5, 1983, 67-71. (RZRAB, 83/10Ye376).

341. Chizh, I.G.; Latenko, Ye.I. (KPIA). Study on an optical fiber lens self-reflector system. Vestnik Kiyevskogo politekhnicheskogo instituta. Priborostroyeniye, no. 13, 1983, 45-47. (RZRAB, 83/9Ye334).

342. Danilevich, V.V.; Ryabov, A.P.; Tret'yak, V.I.; Chernyavskiy, A.F. (). Automated system for statistical analysis of energy and time characteristics of signals in an optical channel. CMSSMODD, 1st, Minsk, Sep 1980. Trudy. Moskva, 1983, 58-64. (RZRAB, 83/9Ye305).

343. Dedushenko, K.B.; Semenov, A.S.; Smirnov, V.L.; Shmal'ko, A.V. (MIFI). Methods for making integrated optical devices compatible with fiberoptic communications lines. KVEKA, no. 9, 1983, 1733-1763.

344. Dorosh, V.S.; Oduvalina, I.A.; Khotnyanskaya, Ye.B.; Yakovenko, N.A. (KubU). Study on the optical properties of diffusion glass waveguides. ZTEFA, no. 9, 1983, 1854-1856.

345. Fabian, L.; Kroedel, G. (). Method for fabricating lightguides from semifinished products. Patent GDR, no. 158060, 22 Dec 1982. (RZRAB, 83/10Ye390).

346. Fattakhov, A.M.; Chirkin, A.S. (MGU). Effect of noise on the propagation of light pulses in optical fibers. KVEKA, no. 10, 1983, 1989-1996.

347. Fedoseyev, V.G.; Adamson, P.V. (IFANEst). Characteristics of the absorption spectrum for guided TM modes in metal-dielectric heterostructures with narrowband electronic excitation in a buffer layer. KVEKA, no. 10, 1983, 1981-1989.

348. Forbrig, B.; Baars, G. (). Method for localizing defects in optical cables. Patent GDR, no. 159114, 16 Feb 1983. (RZRAB, 83/10Ye271).

349. Gan'shin, V.A.; Korkishko, Yu.N.; Petrova, V.Z. (MIET). Formation of outdiffusion lightguides in LiNbO3 in salt solutions at low temperatures. PZTFD, no. 19, 1983, 1197-1200.

350. Gladkiy, V.P.; Ivanov, V.N.; Lopatkina, Ye.I.; Yakovenko, N.A. (KubU). Study on a waveguide reflection switch for an integrated optical signal decoder. IVUBA, no. 10, 1983, 90-92.

330. Tsurko, V.V. (NIIREV). Clinical morphological evaluation of laser therapy of rheumatoid arthritis. NIIREV. Dissertation, 1983, 26 p. (KLDVA, 10/83, 16198).

331. Tupikin, G.V. (MGMIVt). Method for treating rheumatoid arthritis. OIPOB, no. 5, 1983, 993959.

332. Yeliseyeva, E.G.; Pivovarov, N.N.; Bagdasarova, T.A.; Likhnikevich, Ye.N.; Bol'shunov, A.V. (VNIIGBol). Diagnostics and treatment of pre-retinal macular fibrosis following surgery for a detached retina. VEOFA, no. 5, 1983, 34-38.

B. COMMUNICATIONS SYSTEMS

333. Aleksandrov, I.V.; Zhabotinskiy, M.Ye.; Shushpanov, O.Ye. (IRE). Physical model for evaluating the reliability of graded-index fiber lightguides. ZTEFA, no. 9, 1983, 1797-1803.

334. Baars, G. (). Lightwave coupler. Patent GDR, no. 158960, 9 Feb 1983. (RZRAB, 83/10Ye297).

335. Baars, G. (). Switch for lightguides. Patent GDR, no. 158148, 29 Dec 1982. (RZRAB, 83/10Ye299).

336. Babkina, T.V. (IRE). Study on dispersion in fiber lightguides. IRE. Dissertation, 1982, 24 p. (KLDVA, 9/83, 13908).

337. Bagrov, A.M.; Baykalov, P.I.; Vasil'yev, A.V.; Devyatykh, G.G.; Dianov, Ye.M.; Plotnichenko, V.G.; Skripachev, I.V.; Sysoyev, V.K.; Churbanov, M.F. (FIAN). As-S and As-Se lightguides for the medium IR with optical losses less than 1 dB/m. KVEKA, no. 9, 1983, 1906-1907.

338. Birkenstock, N.; Engelage, D.; Proske, D.; Shur, K. (). Device for controlling LED's in lightguide communications lines. Patent GDR, no. 159137, 16 Feb 1983. (RZRAB, 83/10Ye406).

339. Braude, V.B.; Vaysleyb, Yu.V. (EIS). Device for frequency separation of channels in an optical communications line. OIPOB, no. 43, 1982, 793136. (RZRAB, 83/10Ye344).

340. Chamorovskiy, Yu.K. (IRE). Experimental study on the propagation of radiation over "Gradan" fiber lightguides. IRE. Dissertation, 1982, 21 p. (KLDVA, 9/83, 14002).

II. LASER APPLICATIONS

A. BIOLOGICAL EFFECTS

319. Aleynikov, V.S.; Belyayev, V.P.; Devyatkov, N.D.; Klimenko, V.I.; Mamedli, L.D.; Masychev, V.I.; Sysoyev, V.K. (IOF). Surgical applications of a CO laser. KVEKA, no. 10, 1983, 1959-1961.

320. Benimetskaya, L.Z.; Kozionov, A.L.; Novozhilov, S.Yu.; Shtokman, M.I. (IAESOAN). Specificity of nonlinear laser sectioning of DNA. DANKA, v. 272, no. 1, 1983, 217-220.

321. Bykov, V.P. (VNIIGBol). Transvitreal removal of foreign bodies from the posterior section of the eye by means of an endophotocoagulator. VEOFA, no. 5, 1983, 52-53.

322. Chernousov, A.F.; Domrachev, S.A.; Ivanov, A.I.; Malyshev, B.N.; Salyuk, V.A.; Skobelkin, O.K.; Brekhov, Ye.I. (). Surgical suturing device for overlapping of linear sutures. OIPOB, no. 35, 1983, 1042742.

323. Fedorov, S.N.; Zakharov, V.D. (MNILEKKh). Device for ophthalmological surgery. OIPOB, no. 41, 1983, 1052232.

324. Ivanishko, Yu.A. (RMEDI). Efficiency of laser coagulation using a new glance fixation point during late stages of disciform maculodystrophy. VEOFA, no. 5, 1983, 42-44.

325. Karu, T.Y.; Kalendo, G.S.; Letokhov, V.S.; Lobko, V.V. (ISAN). Biological effects of low-intensity light on a HeLa cell as a function of coherence, exposure, wavelength and illumination conditions. KVEKA, no. 9, 1983, 1771-1776.

326. Krasnov, M.M.; Bol'shunov, A.V.; Ziangirova, G.G.; Georgiyeva, V.B. (VNIIGBol). Laser surgery of eye appendages. VEOFA, no. 5, 1983, 44-48.

327. Linnik, L.A.; Kolomiyets, A.I.; Kashintseva, L.T.; Chokova, I.B. (ONIIGBTT). Method for treating glaucoma. OIPOB, no. 34, 1983, 1041113.

328. Ovsyannikov, V.A. (NIIEA). Determining maximum allowable exposures to weak UV laser radiation. KVEKA, no. 9, 1983, 1940-1942.

329. Parkhomenko, Yu.G. (NIIMCh). Pathomorphological characteristics of healing laser surgical wounds of the pancreas. ARPTA, no. 9, 1983, 30-35.

316. Ledneva, G.P.; Chekalinskaya, Yu.I. (). Signal-noise ratio in a regenerative laser amplifier. ZPSBA, v. 39, no. 3, 1983, 478-480.

317. Mikhaylov, N.I.; Batov, I.P.; Dzhingov, Kh.G. (). System for thermostabilization of a solid state laser. ELPBA, no. 10, 1982, 439-440. (RZRAB, 83/10Ye149).

318. Orbachevskiy, L.S.; Rozhdestvin, V.N.; Cherkasov, A.S. (MVTU). Synchronization of pulsed lasers and spatial effects in active open resonators. MVTU. Trudy, no. 397, 1983, 11-19. (RZRAB, 83/10Ye218).

304. Andreyev, V.A. (FIAN). Complex solutions to the Maxwell-Bloch equations. KVEKA, no. 10, 1983, 2045-2048.

305. Ayvazyan, Yu.M.; Kovalenko, S.A.; Sozinov, V.A. (VNIFTRI). Dependence of a wideband laser spectrum on the form of selective losses. KVEKA, no. 10, 1983, 2100-2101.

306. Bortsov, A.A.; Il'in, Yu.B.; Konstantinov, V.N. (MEI). Analysis of quasi-steady-state operating conditions for solid state lasers. MEI. Trudy, no. 579, 1982, 86-90. (RZRAB, 83/10Yel48).

307. Galkin, A.L.; Korobkin, V.V. (IPM). Design of an "active mirror" optical amplifier. IPM. Preprint, no. 185, 1982, 16 p. (RZFZA, 83/10D1055).

308. Golubev, Yu.M.; Gryazhevich, V.P. (). Effect of space-time coherence of excited media on the statistical characteristics of lasing. VINITI. Deposit, no. 5652-82, 1982. (VLUFB, no. 10, 1983, 121).

309. Gordov, Ye.P. (TGU). Semiclassical approach and its application in optics problems. TGU. Dissertation, 1982, 35 p. (KLDVA, 9/83, 13883).

310. Gruzinskiy, V.V. (IFANB). Study on the efficiency of energy conversion of high-power optical and electric excitation by free complex molecules. IFANB. Dissertation, 1982, 36 p. (KLDVA, 9/83, 13885).

311. Hamal, K.; Jelinkova, H. (). Laser with pulse extraction. Author's certificate Czechoslovakia, no. 203355, 15 Oct 1982. ($RZRAB, 83/10Yel36).

312. Kil'pio, A.V.; Malyutin, A.A. (FIAN). Laser amplifier. OIPOB, no. 35, 1983, 913878.

313. Kowalski, A.; Wrona, R. (). Pulsed laser. Patent Poland, no. 117054, 25 Nov 1982. (RZRAB, 83/10Yel44).

314. Kutsenko, A.V. (FIAN). Computer system for collective use at the Lebedev Physics Institute of the Academy of Sciences, USSR (draft). FIAN. Trudy, no. 147, 1983, 7-9.

315. Laptev, V.D.; Reutova, N.M.; Sokolov, I.V. (LGU). Effect of transverse inhomogeneity in the radiation field and in the active medium on the dynamics of superluminescence for the whole system. KVEKA, no. 10, 1983, 2060-2066.

J. CRYSTAL GROWING

295. Astashkin, S.A.; Bulatov, Ye.D.; Osiko, V.V.; Otlivanchik, Ye.A.; Prokhorov, A.M.; Sisakyan, I.N.; Strelov, V.I.; Timoshechkin, M.I.; Chervenkov, V.D. (FIAN). Automated crystal growing by the Czochralski method with control of the diameter by mass. FIAN. Trudy, no. 147, 1983, 43-52.

296. Kaminskiy, A.A.; Mill', B.V.; Belokoneva, Ye.L.; Khodzhabagyan, G.G. (IKAN; MGU). Growth and crystal structure of the new inorganic laser material La3Ga5GeO14-Nd3+. KVEKA, no. 10, 1983, 1762-1764.

297. Men'shenina, N.F.; Tadzhi-Aglayev, Kh.G.; Yevdokimov, A.A.; Arsen'yev, P.A. (). Properties of Ba2RTaO6 and Ba3LaTa3O12 compounds. IUZFA, no. 1, 1983, 71-73. (RZFZA, 83/9D633).

K. THEORETICAL ASPECTS OF ADVANCED LASERS

298. Bayyer, V.N.; Milsteyn, A.I. (IYaFSOAN). Efficient compression of the spectral distribution in a complex path of electrons through a free-electron laser. IYaFSOAN. Preprint, no. 81-140, 1981, 13 p. (KNLTA, 35/83, 31455).

299. Belovintsev, K.A.; Serov, A.V. (FIAN). Experimental study on space and time characteristics of an external microtron beam. KRSFA, no. 9, 1983, 18-22.

300. Gruzina, G.A.; Kozhevnikov, A.V.; Medvedev, A.F.; Padalko, S.A. (). Spiral undulator for a free-electron laser. VINITI. Deposit, no. 3207-83, 9 Jun 1983, 22 p. (RZFZA, 83/9D1159).

301. Vysotskiy, V.I.; Kuz'min, R.N. (KGU; MGU). Stimulated shortwave emission from charged particles in natural hollow crystal channels. KVELA, no. 25, 1983, 3-13.

302. Yevdokimenko, Yu.I.; Lukin, K.A.; Revin, I.D.; et al. (IRFEANUk). Characteristics of energy exchange in diffraction radiation oscillators/free electron lasers. IRFEANUk. Preprint, no. 191m 1982, 46 p. (KNLTA, 43/83, 39008).

L. GENERAL LASER THEORY

303. Anan'yev, Yu.A.; Anikichev, S.G. (). Kinetics of lasers with unstable resonators containing media with short inversion times. ZTEFA, no. 10, 1983, 1959-1965.

286. Kryuchkov, S.I.; Kudryavtsev, N.N.; Novikov, S.S. (). Method for reconstructing the populations of electron-vibrational levels of nitrogen by the radiation and absorption in the first positive system of N2 bands. Neravnovesnyye protsessy v gazovoy dinamike. ITMO. Sbornik nauchnykh trudov. Minsk, 1983. (RZFZA, 83/10D497).

287. Martynovich, Ye.F.; Grigorov, V.A.; Gorbovskoy, V.Ye.; Mysovskiy, S.N. (). IR luminescence and stimulated emission in color centers. ZPSBA, v. 39, no. 3, 1983, 419-423.

288. Umarov, K.U. (MGU). Spectroscopic study on intramolecular interactions and photoconversions in solutions and films of various classes of organic compounds. MGU. Dissertation, 1983, 23 p. (KLDVA, 10/83, 15360).

H. ULTRASHORT PULSE GENERATION

289. Bogatov, A.P.; Vasil'yev, P.P.; Morozov, V.N.; Sergeyev, A.B. (FIAN). Direct recording of picosecond pulses from an injection laser with active mode-lock. KVEKA, no. 10, 1983, 1957-1958.

290. Manakov, S.V.; Zakharov, V.Ye. (). Propagation of ultrashort pulses in laser amplifiers. Cited in UFNAA, v. 139, no. 4, 1983, 733-739. (RZFZA, 83/10A17).

291. Mazurenko, Yu.T. (). Spectral-time characteristics of non-steady-state optical radiation and feasibilities for their measurement. OPSPA, v. 55, no. 4, 1983, 603-606.

292. Murav'yev, A.A.; Rubinov, A.N.; Ryzhechkin, S.A.; Efendiyev, T.Sh. (IFANB). Simple method for generating single picosecond pulses in dye lasers. PZTFD, no. 19, 1983, 1165-1169.

293. Peshko, I.I.; Soskin, M.S.; Khizhnyak, A.I. (IFANUk). Ultrashort pulse laser with controlled parameters. IFANUk. Preprint, no. 20, 1982, 41 p. (RZRAB, 83/10Ye2).

294. Rivlin, L.A. (VNIIOFI). Formation of ultrashort laser pulses. KVEKA, no. 9, 1983, 1885-1888.

276. Nikanorova, Ye.A.; Parygin, V.N. (). Acoustooptic interaction in an anisotropic medium. RAELA, no. 10, 1983, 1907-1913.

277. Petrov, D.V. (IFPSOAN). Acoustooptic conversion of guided modes in an out-going wave in a Ti:LiNbO3 waveguide. PZTFD, no. 18, 1983, 1120-1124.

278. Pugovkin, A.V. (). Binary detection of signals in acoustooptic receivers. IVUZB, no. 9, 1983, 75-77.

279. Razzhivin, B.P. (). Nonlinear model of an acoustooptic spectrum analyzer. Metody i ustroystva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 109-116.

280. Sakiyev, S.N.; Zaripov, Sh.B.; Shabalov, V.V. (). Establishing the interrelation between the amplitude of acoustic emission pulses and the size of defects produced by optical excitation. IATOA, no. 4, 1982, 99-101. (RZFZA, 83/9Zh629).

281. Szustakowski, M.; Swietlicki, B. (). Acoustooptic conversion of TE and TM modes in a diffusive planar waveguide. Archiwum akustyki, no. 3-4, 1982, 271-279. (RZFZA, 83/9Zh620).

282. Szustakowski, M.; Swietlicki, B. (). Acoustooptic conversion of TE and TM modes in a diffuse planar lightguide. Archiwum akustyki, no. 3-4, 1982, 327-335. (RZFZA, 83/9D352).

283. Vinokurov, S.A. (GOI). Surface and volumetric absorption during optoacoustic measurements. OPMPA, no. 10, 1983, 14-16.

G. SPECTROSCOPY OF LASER MATERIALS

284. Anisimov, V.A.; Dmitryuk, A.V.; Karapetyan, G.O.; Maksimov, L.V. (). Comprehensive study on the structure of rare-earth phosphate glasses by means of spectral-kinetic methods and light scattering spectra. CVSSSost, 7th, Leningrad, 13-15 Oct 1981. Materialy. Leningrad, 1983, 62-70. (RZFZA, 83/10D778).

285. Bielski, A.; Bobkowski, R.; Dygdala, R.; Wawrzynski, J. (). Low-pressure broadening and shift of the 632.8 nm neon spectral line. APTLB, v. A63, no. 3, 1983, 411-417. (RZFZA, 83/9D408).

418. Mukasheva, S.N.; Somsikov, V.M. (). Generation of acoustic gravity waves in the atmosphere during passage of a laser beam. VINITI. Deposit, no. 3451-83, 24 Jun 1983, 10 p. (RZFZA, 83/10D996).

419. Naboko, V.N.; Mitev, V.M.; Gyrdev, L.L.; Nitsolov, S.L.; (). Measurement of weak lidar signals in the presence of intense background noise during pulsed laser probing of the atmosphere. Bolgarskiy fizicheskiy zhurnal, no. 1, 1983, 231-236. (RZRAB, 83/10Ye505).

420. Nitsolov, S.L. (). Statistical estimates of spectroscopic parameters in multichannel detection of weak optical spectra. Bolgarskiy fizicheskiy zhurnal, no. 1, 1983, 78-86. (RZFZA, 83/10D862).

421. Polkanov, Yu.A.; Ashkinadze, D.A. (). Possible means of photon counting during the reception of a laser scattering signal in the atmosphere. RAELA, no. 10, 1983, 2080-2082.

422. Prishivalko, A.P. (IFANB). Laser heating of large water droplets with surface films. IFANB. Preprint, no. 300, 1983, 36 p. (RZFZA, 83/10I307).

423. Pustovalov, V.K.; Khorunzhiy, I.A. (). Effect of a polydispersed aqueous aerosol microstructure on the parameters of aerosol bleaching by laser radiation. ZPSBA, v. 39, no. 3, 1983, 397-402.

424. Samedov, A.B.; Dul'kin, Vsev.M.; Kozintsev, V.I.; Dul'kin, Vyach.M.; Depuyeva, N.Kh.; Smirnov, V.V. (). Device for determining the optical parameters of the atmosphere. OIPOB, no. 36, 1983, 1045198.

425. Sheveleva, T.Yu. (). Efficiency of an optical method for controlling pollution in a seaport. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 106-109.

426. Sheveleva, T.Yu.; Leus, N.B. (). Sources of errors in an optical instrument for measuring the thickness of an oil slick. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 102-106.

427. Sheveleva, T.Yu.; Rakov, Sh.A.; Petrenko, V.T.; Leus, V.I. (). Remote measurement of the thickness of an oil slick by an IR radiometer. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 100-102.

428. Sidorenko, Yu.K.; Kropotkin, M.A. (). Scanning radar based on a periodic solid-state laser for detecting oil pollution of water. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 182-185.

429. Strelkov, G.M. (IRE). Propagation of intense laser beams in the troposphere. IRE. Dissertation, 1982, 22 p. (KLDVA, 9/83, 13897).

430. Sukhorukov, A.P.; Trofimov, V.A. (IEM). Numerical modeling of the clearing of a liquid droplet medium by high-power optical radiation. IEM. Trudy, no. 31(105), 1983, 105-110.

431. Svirkunov, P.N. (IEM). Optical breakdown in small transparent particles. IEM. Trudy, no. 31(105), 1983, 73-78.

432. Vdovin, V.A.; Korolev, I.Ya.; Kosoburd, T.P.; Krikunova, E.M.; Sorokin, Yu.M. (IEM). Experimental and numerical studies on the dynamics of optical breakdown in an aerosol medium. IEM. Trudy, no. 31(105), 1983, 69-73.

433. Vdovin, V.A.; Sorokin, Yu.M. (GGU). Collective evolution of an optical breakdown plasma in an aerosol medium. IVYRA, no. 10, 1983, 1220-1226.

434. Veretennikov, V.V.; Kaul', B.V.; Krasnov, O.A.; Panchenko, M.V.; Tumakov, A.G. (IOA). Lidar nephelometric study on the microscopic structure of aerosol media. IFAOA, no. 10, 1983, 1027-1034.

435. Yegorov, K.D.; Kandido, V.P.; Laguchev, A.S. (MGU). Nonlinear refraction of an optical beam during propagation through a moderate wind. IVYRA, no. 9, 1983, 1175-1177.

436. Zakharchenko, S.V.; Semenov, L.P.; Skripkin, A.M. (IEM). Optical breakdown in aerodisperse media. IEM. Trudy, no. 31(105), 1983, 11-25.

437. Zakharchenko, S.V.; Sintyurin, G.A.; Skripkin, A.M. (IEM). Effect of aerosol particles on the formation process of a long laser spark. IEM. Trudy, no. 31(105), 1983, 3-11.

438. Zakharchenko, S.V.; Skripkin, A.M. (IEM). Experimental studies on a plasma from a low-threshold collective optical discharge in an aerosol medium. IEM. Trudy, no. 31(105), 1983, 60-69.

3. Propagation in Liquids

439. Khaltgurin, V.I. (MGI). Propagation of luminous fluxes at a uniform ocean depth. VINITI. Deposit, no. 3559-83, 30 Jun 1983, 39 p. (RZFZA, 83/10D1001).

440. Yeflov, V.B.; Il'inskiy, Yu.A. (MGU). Propagation of an optical beam in an optically inhomogeneous medium with anisotropic scattering. VMUFA, no. 5, 1983, 77-79.

4. Adaptive Optics

441. Andreyev, N.F.; Bespalov, V.I.; Dvoretskiy, M.A.; Pasmanik, G.A. (IPF). Non-steady-state stimulated Brillouin scattering of focused light beams in a saturation mode. ZETFA, v. 85, no. 4, 1983, 1182-1191.

442. Anikeyev, I.Yu.; Zubarev, I.G.; Mikhaylov, S.I. (FIAN). Stimulated scattering of spatially incoherent optical radiation. ZETFA, v. 84, no. 5, 1983, 1677-1685.

443. Bakut, P.A.; Belkin, N.D.; Ryakhin, A.D.; Sviridov, K.N.; Ustinov, N.D. (). Analysis of adaptive optical systems with compensation for randomly inclined wavefronts. AVMEB, no. 5, 1983, 72-76.

444. Bespalov, V.I.; Pasmanik, G.A. (). Wavefront reversal and new possibilities for laser optics. VANSA, no. 10, 1983, 54-61.

445. De La Cruz, Guillermo; Tolstik, A.L.; Chaley, A.V.; De Lya Kruz, Giyermo (translit). (IFANB). Spectral characteristics of the reflection coefficient for reversed waves in dye solutions. VBMFA, no. 3, 1983, 21-23.

446. Galushkin, M.G.; Seregin, A.M.; Fedorov, A.B.; Cheburkin, N.V. (). Effect of diffusion of excited particles on wavefront reversal in a gaseous medium. KVEKA, no. 10, 1983, 2115-2118.

447. Guether, R. (). Meridional light path function and coma transfer for corrected holographic concave gratings. OPAPB, no. 3-4, 1982, 451-460. (RZFZA, 83/9D1031).

448. Karpukhin, S.N.; Yashin, V.Ye. (). Efficient reflection of radiation with wavefront reversal during stimulated Raman scattering in crystals. PZTFD, no. 18, 1983, 1115-1120.

449. Korzinin, Yu.L.; Sukhanov, V.I. (). Wave field scattered by a 3D phase hologram with spatial frequency display. PZTFD, no. 20, 1983, 1254-1258.

450. Kovachev, M.I.; Merzlyakov, N.S.; Pushkarova, K.S.; Yaroslavskiy, L.P. (). Experiment with an adaptive optical system. PZTFD, no. 18, 1983, 1113-1115.

451. Novikov, A.D.; Odulov, S.G.; Savchuk, A.V.; Sal'kova, Ye.N. (IFANUk). Wavefront reversal by CdxHgl-xTe film surfaces. UFZHA, no. 10, 1983, 1584-1586.

452. Taranenko, V.G. (GOI). Use of an active deforming mirror for correcting random distortions in a phase front. OPMPA, no. 2, 1983, 22-24. ($RZFZA, 83/9D969).

453. Yerokhin, A.I.; Kovalev, V.I.; Fayzullov, F.S.; Shmelev, A.K. (FIAN). Precision of back-scattering during quasi-degenerate four-wave interactions. KVEKA, no. 9, 1983, 1899-1902.

D. COMPUTER TECHNOLOGY

454. Alekseyev, V.I. (). Optoelectronic image signal analyzer. OIPOB, no. 22, 1982, 935813. (RZRAB, 83/10Ye412).

455. Gudayev, O.A.; Gusev, V.A.; Demenko, S.I. (). Effect of preliminary illumination on optical information recording in metal-dielectric-semiconductor-dielectric-metal structures based on Bil2SiO20. AVMEB, no. 5, 1983, 108-110.

456. Gusev, V.A.; Detinenko, V.A.; Sokolov, A.P. (). Photochromic effect and optical information recording in titanium, silicon and germanium sillenites. AVMEB, no. 5, 1983, 34-44.

457. Kaganovich, E.B.; Ostrovskaya, I.K.; Savchuk, A.V.; Sal'kova, Ye.N.; Soskin, M.S. (IFANUk). Holographic recording on thin films of copper and nickel sulfide. UFZHA, no. 10, 1983, 1556-1557.

458. Kuznetsov, A.I.; Malyutin, A.A.; Pelipenko, V.I.; Filippov, A.N.; Shpuga, S.M. (FIAN). Matrix photodetector with memory. FIAN. Trudy, no. 147, 1983, 40-43.

459. Verbovetskiy, A.A.; Zimoglyadova, Ye.A.; Fedorov, V.B. (). Building multi-user optical memories. AVMEB, no. 5, 1983, 86-90.

460. Yakimovich, A.P. (IAESOAN). Method for producing a parallel digital optical adder. KVEKA, no. 9, 1983, 1944-1946.

461. Yarmosh, N.A.; Kukonin, A.G.; Yerokhovets, V.K.; Sigitov, D.K. (ITK). Method and device for reading holographic information. OIPOB, no. 38, 1983, 647979.

E. HOLOGRAPHY

462. Alekseyev-Popov, A.V.; Knyaz'kov, A.V.; Saykin, A.S. (). Recording of 3D amplitude-phase holograms on PLZT ceramics. PZTFD, no. 18, 1983, 1108-1112.

463. Andreyeva, O.V.; Sukhanov, V.I.; Khazova, M.V.; Bodunov, Ye.N. (). Refractive index of developed photographic layers in three-dimensional holography. PZTFD, no. 19, 1983, 1161-1164.

464. Azamatov, E.T.; Kadyrova, D.R.; Sadykova, Sh.Z.; Minayev, V.S.; Mikhalev, N.I.; Popov, A.I. (). Effect of the past thermal history and composition on photoinduced conversions in As-Se system films. IUZFA, no. 1, 1983, 66-68. (RZFZA, 83/10D946).

465. Bazhenov, M.Yu.; Kuvshinskiy, N.G.; Nakhodkin, N.G. (). Control of thin films of polymer semiconductors during recording of optical holograms. FOOSD, no. 14, 1983, 3-11. (RZFZA, 83/9D1044).

466. Bazhenov, V.Yu.; Burykin, N.M.; Vasnetsov, M.V.; Soskin, M.S.; Taranenko, V.B. (). Holographic recording in bichromated gelatin. AVMEB, no. 5, 1983, 3-9.

467. Belyachits, A.Ch.; Kukharchik, P.D.; Semenchik, V.G. (). Principles and application of multifrequency holography. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 3-14.

468. Berezinskaya, A.M.; Dukhovnyy, A.M.; Stasel'ko, D.I. (). Non-steady-state conversion of spatially inhomogeneous optical beams by 3D dynamic holograms. ZTEFA, no. 10, 1983, 1986-1994.

469. Berezinskaya, A.M.; Stasel'ko, D.I.; Churayev, A.L. (). Effect of instability in amplitude-phase distributions of laser beams on the quality of holographic interference bands during diffuse illumination of objects. ZTEFA, no. 10, 1983, 1995-2003.

470. Bykovskiy, Yu.A.; Larkin, A.I.; Markilov, A.A.; Mironov, Yu.A.; Starikov, S.N. (MIFI). Holographic device for pattern recognition. OIPOB, no. 38, 1983, 862713.

471. Cherkasov, Yu.A. (GOI). Photothermoplastic process in the problem of recording images in real time. GOI. Trudy, no. 51, 1982, 92-99. (RZRAB, 83/9Ye469).

472. Denisyuk, Yu.N.; Zagorskaya, Z.A.; Nizhin, A.M.; Shevchenko, S.B. (GOI). Method for producing light-sensitive media for use in holography. OPMPA, no. 9, 1983, 58-59.

473. Durasov, V.M.; Rubanov, A.S.; Stashkevich, I.V.; Chaley, A.V. (BGU). Recording of IR holograms on polyvinyl alcohol films. PZTFD, no. 19, 1983, 1178-1180.

474. Gal'pern, A.D.; Denisyuk, Yu.N.; Rozhkov, B.K. (). Study on the quality of a system for forming raster-holographic 3D images. OPSPA, v. 55, no. 3, 1983, 495-500.

475. Getmanchuk, Yu.P.; Sokolov, N.I. (). Structure and spectral sensitivity of oligomer photoconductors sensitized by various acceptor electrons. FOOSD, no. 14, 1983, 11-19. (RZFZA, 83/9D1097).

476. Ginzburg, V.M.; Nikolayev, F.Ya.; Stepanov, B.M. (). Hologram recording of dynamic objects in the microwave range. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 5-8. (RZRAB, 83/9Ye577).

477. Jankiewicz, Z.; Nowakowski, W.; Bobak, W.; Yankevich, Z. (translit); Novakovskiy, V. (translit); Bobak, V. (translit). (). The HS-1 holographic camera. Obzor pol'skoy tekhniki, no. 5-6, 1982, 8-11. (RZRAB, 83/9Ye592).

478. Kakichashvili, Sh.D. (TbGU). Polarization holographic recording for the general case of reaction in an optically anisotropic medium. KVEKA, no. 10, 1983, 1976-1981.

479. Kakichashvili, Sh.D.; Vardosanidze, Z.V.; Leselidze, D.V. (). High-efficiency holographic mirror made from bichromated gelatin. PZTFD, no. 18, 1983, 1102-1104.

480. Kanayev, I.F.; Malinovskiy, V.K. (). Displacement holograms in lithium niobate crystals. AVMEB, no. 5, 1983, 63-71.

481. Klimenko, I.S. (LPI). Focused-image holography. LPI. Dissertation, 1983, 33 p. (KLDVA, 9/83, 13889).

482. Klimenko, I.S.; Malov, S.N.; Ryabukho, V.P. (MFTI). Holographic readout of images recorded in the Fourier plane with narrow beam spatial filtering. DANKA, v. 272, no. 2, 1983, 365-369.

483. Klimenko, I.S.; Ryabukho, V.P.; Feduleyev, B.V.; Lokhova, N.V. (). Characteristics of holographic and speckle interferograms produced by recording the optical field of an object in the Fourier plane. OPSPA, v. 55, no. 3, 1983, 483-489.

484. Komar, V.G.; Sokolov, V.N. (). Pulsed lasers for recording color holographic motion pictures. TKTEA, no. 9, 1983, 32-36.

485. Kukharchik, P.D.; Kurilo, N.I.; Semenchik, V.G.; Titovitskiy, I.A. (). Methods for improving the parameters of radioholographic devices. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 14-33.

486. Libera, L.; Ridel', G.; Khamann, K.; Savchuk, A.V.; Sal'kova, Ye.N.; Soskin, M.S.; Chumak, S.M. (). Study on the mechanism for recording holographic gratings on the surface of thin organic films. FOOSD, no. 14, 1983, 43-52. (RZFZA, 83/9D1044).

487. Monosov, Ya.A.; Shavrov, V.G. (IRE). Method for producing 3D holographic images. OIPOB, no. 36, 1983, 1045217.

488. Moskalets, O.D. (). Theoretical study of various problems in the analysis of complex and energy spectra by acoustooptic devices. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 102-109.

489. Peshko, I.I.; Soskin, M.S.; Khizhnyak, A.I. (IFANUk). Properties of holographic gratings in silicon crystals during the recording of ultrashort optical pulses. Part 2. Experiment. UFZHA, no. 10, 1983, 1466-1472.

490. Rakushin, Yu.A. (). Analysis of distortion introduced during recording of speckle photography of deformed objects. ZTEFA, no. 10, 1983, 2004-2008.

491. Rebane, A.K.; Kaarli, R.K.; Saari, P.M. (IFANEst). Dynamic picosecond holography using photochemical hole burning. ZFPRA, v. 38, no. 7, 1983, 320-323.

492. Safronov, G.S. (). Statistics of images reconstructed by radioholograms. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 42-60.

493. Savilova, Yu.I. (). Holographic systems with multi-sided illumination and observation of the studied object (review). Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 70-75. (RZRAB, 83/9Ye580).

494. Sazonov, A.I.; Kalendarev, R.I.; Eydus, Ya.A. (LatGU). Photographic and holographic properties of arsenic trisulfide thin films. ZNPFA, no. 5, 1983, 334-338.

495. Serdyuk, V.M.; Khapalyuk, A.P. (NIIPFP). Method of coupled waves in problems of optical diffraction by phase gratings with arbitrary thicknesses. ZTEFA, no. 10, 1983, 2095-2101.

496. Sherstyuk, V.P.; Mazur, L.Ye.; Shevchenko, S.B.; Lyaletskaya, O.A.; Lysenkova, L.N. (). Chemical conversions in bichromated gelatin while obtaining holograms. FOOSD, no. 14, 1983, 76-84. (RZFZA, 83/9D1100).

497. Svet, V.D. (). Optical reconstruction of broadband acoustic holograms. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 84-102.

498. Vasil'yev, A.M.; Gibin, I.S.; Kibirev, S.F.; Pankov, B.N.; Pen, Ye.F.; Tverdokhleb, P.Ye. (). E-O device for recording and displaying information. OIPOB, no. 38, 1983, 1048491.

499. Venzel', V.I.; Obraztsov, V.S. (). Photometer for holography. OIPOB, no. 37, 1983, 849841.

500. Vorob'yev, S.P. (GOI). Effect of instability in the position of an interference pattern on the quality of a hologram. OPMPA, no. 9, 1983, 1-2.

501. Yakimovich, A.P. (). Diffraction efficiency of 3D phase microholograms. OPSPA, v. 55, no. 3, 1983, 490-494.

502. Yembegrenov, B.; Korsunskaya, N.Ye.; Sheynkman, M.K.; Sukhoverkhova, L.G. (). Study on photochemical reactions and reverse holographic gratings recorded by these reactions in CdS crystals. FOOSD, no. 14, 1983, 69-76. (RZFZA, 83/9D1043).

503. Zel'dovich, B.Ya.; Lerner, P.B. (IPMe). Energy transfer between waves during recording and reconstruction in holographic media with a lasing response. KVEKA, no. 9, 1983, 1764-1770.

F. LASER-INDUCED CHEMICAL REACTIONS

504. Alimpiyev, S.S.; Zikrin, B.O.; Khol'ts, L.; Nikiforov, S.M.; Smirnov, V.V.; Sartakov, B.G.; Fabelinskiy, V.I.; Shtarkov, A.L. (IOF). Determining the vibrational relaxation rates for SF6 molecules pumped by a high-power IR laser field. ZFPRA, v. 38, no. 7, 1983, 349-352.

505. Bakhtadze, A.G.; Vetsko, V.M.; Starostin, A.N.; Khakhunashvili, T.R. (NIISI). Isotope-selective two-photon excitation of a three-level atom. KVEKA, no. 10, 1983, 2013-2021.

506. Beterov, I.M.; Kurochkin, V.L.; Fateyev, N.V.; Yudelevich, I.G. (). Stepped photoionization determination of element tracks. IZSKA, no. 7/3, 1983, 67-73. (RZFZA, 83/10D864).

507. Bogorodskiy, M.M.; Musikhin, V.A.; Semiokhin, I.A.; Sokolova, Ye.A. (MGU). Discrete Fourier transform analysis of the absorption spectrum and selectivity of laser excitation of bromine isotopes. VMUKA, no. 3, 1983, 244-247. (RZFZA, 83/10D1226).

508. Bondar', I.I.; Suran, V.V. (). Study on the nonlinear resonance process in the formation of Ba2+ ions. OPSPA, v. 55, no. 4, 1983, 784-786.

509. Chaplygin, V.I.; Novodvorskiy, O.A.; Matveyev, O.I.; Zorov, N.B.; Kuzyakov, Yu.Ya. (MGU). Optimization of conditions for laser atomic ionization determination of elements in a flame. VINITI. Deposit, no. 2597-83, 17 May 1983, 14 p. (DERUD, 9/83, 694).

510. Ivanov, M.A.; Kozlov, B.N.; Mamyrin, B.A.; Shmikk, D.V.; Shchebelin, V.G. (FTI). Mass-reflectron for studying the process of laser interaction with molecules in a supersonic gas jet. ZTEFA, no. 10, 1983, 2039-2044.

511. Kamrukov, A.S.; Kashnikov, G.N.; Kozlov, N.P.; Kuznetsov, S.G.; Orlov, V.K.; Protasov, Yu.S. (MVTU). Cumulative plasma-dynamic reactor for laser and photochemical research. KVEKA, no. 9, 1983, 1793-1800.

512. Konyashenko, A.V.; Orayevskiy, A.N.; Starodubtsev N.F. (). Dissociation of the CF2Cl2 molecule in an IR+UV laser field during multiphoton excitation of various types of vibrations. Khimicheskaya fizika, no. 5, 1983, 709-710. (RZFZA, 83/10D1224).

513. Kudryavtsev, Yu.A.; Letokhov, V.S.; Moskovets, Ye.V. (ISAN). Possibility of laser detection of carbon-14 by stepped isotopically selective excitation of CO molecules. ISAN. Preprint, no. 1, 1983, 42 p. (RZFZA, 83/10D1227).

514. Letokhov, V.S.; Mishin, V.I.; Muchnik, M.L.; Orlov, Yu.V.; Chernyak, Ye.Ya. (ISAN). Efforts in photoionic laser epitaxy: study on purity and conditions for nucleation of crystalline indium films. KVEKA, no. 10, 1983, 1963-1964.

515. Lossovskiy, V.A.; Ryabchuk, S.V.; Sarkisov, O.M.; Cheskis, S.G. (IKhF). Mechanism of ammonia photo-oxidation. Khimicheskaya fizika, no. 1, 1982, 225-241.

516. Makarov, A.A. (ISAN). Excitation of atoms by optical pulses at resonance-amplified frequencies. ZETFA, v. 85, no. 4, 1983, 1192-1202.

517. Mamedov, S.B.; Mikhaylov, M.D.; Borisova, Z.U.; Yakovuk, O.A. (LGU). Some characteristics of forming AsSe films during photostructural transformations. VLUFB, no. 10, 1983, 54-59.

518. Mezhevov, V.S.; Orlov, M.Yu.; Pal', A.F.; Pis'mennyy, V.D.; Pichugin, V.V.; Starodubtsev, A.I.; Starostin, A.N. (). Separation of gas mixtures under the action of a periodic pulsed discharge. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 417-419.

519. Mukhamedgaliyeva, A.F.; Bondar', A.M. (). Laser-stimulated reactions on the surface of quartz and various minerals. Poverkhnost'. Fizika, khimiya, mekhanika, no. 5, 1983, 125-129. (RZFZA, 83/9Ye984).

520. Rebane, A.K.; Kaarli, R.K.; Saari, P.M. (). Igniting a complex shaped gap by a coherent train of picosecond pulses. OPSPA, v. 55, no. 3, 1983, 405-407.

521. Vasilenko, L.S.; Rubtsova, N.N.; Chebotayev, V.P. (ITF). Photon echo study on collisional relaxation dependent on velocity. ZFPRA, v. 38, no. 8, 1983, 391-393.

522. Volkov, S.V.; Gurko, A.F.; Druzheruchenko, A.F.; Lutoshkin, V.I. (IONKhANUkr). Study on the kinetics and mechanism of laser chemical reactions involving BCl3 with hydrogen and methane. KHVKA, no. 5, 1983, 464-467.

G. MEASUREMENT OF LASER PARAMETERS

523. Abramski, K.M. (). Standards of laser frequency stability. RZETA, no. 4, 1981, 1161-1171. (RZRAB, 83/9Ye186).

524. Achasov, O.V.; Labuda, S.A. (). Modified method for determining the populations of vibrational levels by means of a tunable CO2 laser. Neravnovesnyye protsessy v gazovoy dinamike. ITMO. Minsk, 1983, 121-132. (RZFZA, 83/10D1147).

525. Al'perovich, L.I. (TaGU). Method for controlling laser radiation power. OIPOB, no. 40, 1983, 410713.

526. Andreyev, V.V.; Yelfimimov, O.V.; Kremenchugskiy, L.S.; Pustovalov, T.M. (IFANUk). Device for measuring the diameter of a laser beam. OIPOB, no. 37, 1983, 980509.

527. Bobrik, V.I.; Bukovskiy, B.L.; Volkov, S.Yu.; Kuznetsov, A.I.; Pelipenko, V.I.; Raykhert, V.A.; Smirnov, V.V.; Tomashevskiy, Yu.F. (FIAN). Automatic system for measuring the wavelength of laser radiation. FIAN. Trudy, no. 147, 1983, 53-61.

528. Bronnikov, V.I. (GOI). Measuring axial instability in the directional pattern of laser radiation. OPMPA, no. 9, 1983, 5-6.

529. Bulatov, Ye.D.; Danilenko, A.A.; Otlivanchik, Ye.A.; Otlivanchik, M.A.; Sisakyan, I.N. (FIAN). Experience in the automation of experiments for a large physics laboratory. FIAN. Trudy, no. 147, 1983, 10-15.

530. Bulatov, Ye.D.; Golubev, Ye.V.; Otlivanchik Ye.A.; Otlivanchik, M.A. (FIAN). Crate controller for minicomputers in the Nova, Eclipse, Helvet or Start series. FIAN. Trudy, no. 147, 1983, 19-21.

531. Bulatov, Ye.D.; Malyutin, A.A.; Otlivanchik, M.A.; Pashinin, P.P.; Sisakyan, I.N.; Filippov, A.N. (FIAN). Measurement of spatial-energy characteristics of laser radiation by a photomatrix-minicomputer system. FIAN. Trudy, no. 147, 1983, 26-40.

532. Derkach, N.V. (). Measurements and recording of results in systems for measuring the parameters of laser radiation. IZTEA, no. 9, 1983, 61-62.

533. Gerasimov, V.A.; Zverev, V.M.; Mak, A.A.; Filippov, M.V.; Shcherbakov, A.A. (). Self-consistent method for evaluating the energy of optically-pumped solid-state lasers. KVEKA, no. 9, 1983, 1806-1812.

534. Glazov, A.I.; Mitrofanov, T.M.; Tikhomirov, S.V.; Tyutyunnik, V.G. (). Photoelectric calibrating devices for measuring the energy and maximum power of pulsed lasers. IZTEA, no. 9, 1983, 53-55.

535. Goryachev, S.B.; Konsashbayeva, R.S.; Rodionov, N.B.; Tikhonov, B.A.; Sharkov, V.F. (IAE). Various methods for determining the energy characteristics of CO2 thermal gasdynamic lasers. IAE. Preprint, no. 3695/1, 1982, 21 p. (RZFZA, 83/10D1142).

536. Ivanenko, M.M.; Churakov, V.V. (). Theoretical study on the emission spectral characteristics of a molecular laser with resonant optical pumping. ZPSBA, v. 39, no. 4, 1983, 556-563.

537. Knyupfer, A.P. (). Precision of measuring the energy of laser radiation by multi-element arrays of measuring devices. IZTEA, no. 9, 1983, 59-60.

538. Kosorotov, V.F.; Kremenchugskiy, L.S.; Shul'ga, A.Ya. (IFANUk). Method and device for measuring time and energy characteristics of pulsed radiation. OIPOB, no. 42, 1982, 974143. (RZRAB, 83/10Ye475).

539. Kostin, V.A.; Stysin, V.Ye.; Tikhomirov, S.V.; Khatyrev, N.P.; Yakovlev, V.A. (). Precision photometer for measuring low-level maximum powers of pulsed laser radiation. IZTEA, no. 9, 1983, 55-57.

540. Kotyuk, A.F.; Zagorskiy, Ya.T.; Kuznetsov, A.A.; Ulanovskiy, M.V. (). Calibrating device for measuring the average power of laser radiation. IZTEA, no. 9, 1983, 49-51.

541. Kurzenkov, V.N.; Rubinov, Yu.A.; Sokolov, V.N. (GOI). Photographic recording of a pulsed laser radiation field in the 1-10 micron spectral region. OPMPA, no. 10, 1983, 18-20.

542. Larikov, A.V.; Malyutin, A.A.; Filippov, A.N. (FIAN). Multichannel system for point measurements of the radiation energy of pulsed lasers. FIAN. Trudy, no. 147, 1983, 22-26.

543. Maresh, R.M.; Mikhaylenko, Yu.M. (KPIA). Method for measuring laser wavelengths. Vestnik Kiyevskogo politekhnicheskogo instituta. Priborostroyeniye, no. 13, 1983, 39-43. (RZRAB, 83/9Ye442).

544. Pokorovskiy, Yu.A.; Makaretskiy, Ye.A.; Khurkhulu, Yu.S. (TulPI). Panoramic divergence meter of laser radiation. $VINITI. Deposit, no. 3337-83, 16 Jun 1983, 6 p. (DERUD, 10/83, 616).

545. Rysin, V.V.; Kubarev, A.V.; Kubyshkin, V.V. (). Proven high-precision device for recording the power of c-w laser radiation. IZTEA, no. 10, 1983, 22-24.

546. Snopko, V.N.; Tsaryuk, O.V. (). Polarimeter for a CO2 laser. ZPSBA, v. 39, no. 3, 1983, 499-503.

547. Stysin, V.Ye.; Tikhomirov, S.V.; Tyutyunnik, V.G. (). Measuring the linearity of photodiode optical characteristics. IZTEA, no. 9, 1983, 57-58.

548. Topkov, A.N.; Yepishin, V.A.; Svich, V.A.; Pokormyakho, N.G.; Fedotov, A.B. (). Possibility of using an HCN laser in a heterodyne interferometer. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 59-63. (RZRAB, 83/9Ye446).

549. Zagorskiy, Ya.T.; Kotyuk, A.F.; Kuznetsov, A.A.; Levi, A.M. (). Calibrating device for measuring the energy of pulsed laser radiation. IZTEA, no. 9, 1983, 51-53.

H. LASER MEASUREMENT APPLICATIONS

1. Direct Measurement by Laser

550. Abramov, O.I.; Yeremin, V.I.; Karlsen, G.G.; Lobov, L.I. (). Experimental verification of an optical wave recorder with a scanning beam. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 209-211.

551. Adzhemyan, L.Ts.; Zubkov, L.A.; Mel'nik, I.V.; Romanov, V.P. (). Study on the optical properties of highly opalescing systems. Extinction study. OPSPA, v. 55, no. 3, 1983, 513-516.

552. Alekhnovich, V.I.; Komarov, G.L.; Kukudzhanov, A.R.; Pyasetskiy, V.B. (ISAN). Automatic laser photoacoustic microspectrometer. PRTEA, no. 5, 1983, 176-178.

553. Aleksandrov, A.P.; Vayndruk, E.S.; Legeza, V.P. (). Optical multichannel wave recorder. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 205-209.

554. Aleksandrov, Yu.M.; Murashova, V.A.; Pashchenko, G.S.; Yakimenko, M.N. (FIAN). Compton polarimeter on line with a computer. FIAN. Trudy, no. 147, 1983, 137-142.

555. Andreyev, V.N.; Goffman, V.G.; Gur'yanov, A.A.; Chudnovskiy, F.A. (FTI). Domain structure of RbAg4I5 below the point of phase transition at 208 K. FTVTA, no. 9, 1983, 2636-2643.

556. Antsibor, V.Ya.; Malevannyy, V.S.; Polyakov, S.I.; Petrov, S.A.; Mikhaylov, D.K.; Semenov, P.F.; Gushchin, N.M.; Karpachev, V.N.; Timonov, N.T.; Solomatov, V.I. (VIOGEM). Photogrammetric method for surveying a purifying chamber. OIPOB, no. 38, 1983, 1048316.

557. Antyukhov, V.V.; Glova, A.F.; Dan'shchikov, Ye.V.; Dymshakov, V.A.; Kachurin, O.R.; Lebedev, F.V.; Ryazanov, A.V.; Fromm, V.A. (IAE). Experimental study on the focusing of CO2 laser radiation for technology. IAE. Preprint, no. 3718/14, 1983, 23 p. (RZFZA, 83/10D1261).

558. Artemenko, S.B.; Volegov, Yu.V. (). Non-contact holographic and ultrasonic defectoscopy of layered and welded stuctures. DEFKA, no. 8, 1983, 3-6. (RZRAB, 83/9Ye595).

559. Astvatsaturov, A.V.; Gal'pern, A.D.; Demchenko, P.I.; Paramonov, A.A.; Tyutikova, I.N. (GOI). Microprojector with a holographic screen. OPMPA, no. 10, 1983, 27-29.

560. Avakyants, L.P.; Kiselev, D.F.; Chervyakov, A.V. (). Temperature dependence of the refractive index for BiVO4. FTVTA, no. 9, 1983, 2782-2784.

561. Avetisov, E.S.; Gundorova, R.A.; Shapovalov, S.L.; Begishvili, D.G.; Shapiro, Ye.Sh.; Tarasenkov, V.N. (MNII). Method for measuring visual acuity. OIPOB, no. 35, 1983, 1042747.

562. Avetisov, E.S.; Rozenblyum, Yu.Z.; Fallukh, Sh.Sh. (VNIIGBol). Evaluation of modern refractometric methods in relation to optical correction of vision. VEOFA, no. 5, 1983, 53-57.

563. Avetisov, E.S.; Shapovalov, S.L.; Smol'yaninova, I.S.; Akhmedzhanova, Ye.V. (MNII). Method for treating nystagmus. OIPOB, no. 35, 1983, 1042746.

564. Bakanov, L.V.; Bekker, A.M.; Bukhtoyarova, N.I.; Lebedev, V.D.; Naydenkov, A.F.; Stabnikov, M.V.; Tombak, M.A. (LIYaF). Obtaining holograms of particle tracks in a small-scale bubble chamber. LIYaF. Preprint, no. 829, 1983, 9 p. (RZFZA, 83/9V520).

704. Bekkiyev, A.Yu.; Golinskaya, T.A.; Fadeyev, V.V. (). Determining the temperature and ion composition of aqueous solutions by a remote laser method. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 117-120.

705. Bekkiyev, A.Yu.; Lapshenkova, T.V.; Panchishin, I.M.; Fadeyev, V.V.; Chubarov, V.V. (). Remote laser fluorimetry of dissolved organic matter in seawater. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 197-200.

706. Belousov, M.V.; Vol'f, B.Ye.; Ivanova, Ye.A. (NIIFL). Effect of polarizability on the transfer of pump energy in a disordered linear system. ZFPRA, v. 38, no. 8, 1983, 376-379.

707. Berndt, K. (). Detector system for short-duration spectroscopy with a mode-locked laser. Patent GDR, no. 157831, 8 Dec 1982. (RZRAB, 83/9Ye502).

708. Bogdanov, V.L. (). Optical absorption and vibrational relaxation of electronically excited perylene molecules in a liquid solution and in a Shpol'skiy matrix. OPSPA, v. 55, no. 3, 1983, 460-466.

709. Bol'shakov, A.A.; Oshemkov, S.V. (LGU). Device for laser fluorescence analysis of gases with preliminary excitation in a discharge. VLUFB, no. 10, 1983, 74-78.

710. Brodin, M.S.; Kaperko, V.P.; Matsko, M.G. (IFANUk). Inter-exciton interaction and induced exciton and biexciton transitions in GaSe. FTPPA, no. 9, 1983, 1568-1574.

711. Bues, W.; Somer, M.; Brockner, W. (). Vibrational spectra of As4S4 and As4Se4. ZAACA, no. 4, 1983, 7-14. (RZFZA, 83/10D631).

712. Bunkin, A.F.; Vlasov, D.V.; Garayev, R.A. (FIAN). Express remote recording of a CARS spectrum. KVEKA, no. 9, 1983, 1902-1903.

713. Burakov, V.S.; Malashonok, V.A.; Nechayev, S.V.; Raykov, S.N. (). Diagnostics of a pulsed gas-discharge plasma by intracavity laser spectroscopy. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 257-259.

714. Gachko, G.A.; Kivach, L.N.; Maskevich, S.A.; Ostrovskiy, Yu.M.; Podtynchenko, S.G. (GrodGU). Raman study on the hydration of pyruvic acid. DBLRA, no. 10, 1983, 946-949.

695. Zhurkin, B.G.; Michenko, A.I.; Oktyabr'skiy, S.R. (FIAN). Automatic photon counter for studying luminescence in semiconductors. FIAN. Trudy, no. 147, 1983, 84-87.

696. Zimenko, V.I.; Lositskaya-Yezhova, L.G.; Sytenko, T.N. (KPIA). Energy spectrum of levels at cryogenic temperatures in GaAs. VKPRB, no. 20, 1983, 100-104. (RZRAB, 83/10Ye553).

3. Laser Spectroscopy

697. Abdulloyev, N.S. (IFSOAN). Raman spectroscopy study on the dispersion of dielectric characteristics of lithium niiobate and tantalate crystals. IFSOAN. Dissertation, 1983, 19 p. (KLDVA, 10/83, 15259).

698. Ambrazyavichyus, G.; Babonas, G.; Bondarev, A.D.; Leonov, Ye.I.; Pukinskas, G. (). Selective excitation of luminescence centers in Bi12SiO20:Nd crystals. LFSBA, no. 2, 1983, 64-68. (RZFZA, 83/10D769).

699. Andreyev, S.P.; Belokon', M.V.; Lopatko, V.N.; Korda, I.M.; Kravchenko, A.Ye.; Mazayev, N.V.; Rubinov, A.N. (). Intracavity spectrometer with a dye laser. VINITI. Deposit, no. 3131-83, 8 Jun 1983, 11 p. (RZFZA, 83/9D846).

700. Atakhodzhayev, A.K.; Malomuzh, N.P.; Fayzullayev, Sh.F.; Zhumaboyev, A. (). Study on the far wings in the molecular scattering spectra of liquids composed of anisotropic molecules. OPSPA, v. 55, no. 4, 1983, 787-788.

701. Baryshevskiy, V.G.; Yevdokimov, V.A.; Kononov, Yu.G.; Kuz'min, V.V.; Livshits, M.G. (IFANB). Effect of optical radiation on the hyperfine structuure of 57Fe3+ ions in FeBO3 antiferromagnetics. VBMFA, no. 3, 1983, 57-59.

702. Basun, S.A.; Kaplyanskiy, A.A.; Feofilov, S.P.; Shekhtman, V.L. (FTI). Role of exchange-coupled Cr3+ ion pairs in the kinetics of 29 cm-1 phonon capture in the excitation of ruby. FTVTA, no. 9, 1983, 2731-2737.

703. Bayramov, B.Kh.; Irmer, G.; Moneke, I.; Toporov, V.V. (FTI). Experimental observation of the fine structure of the optical scattering spectra from dielectric local modes. ZFPRA, v. 38, no. 5, 1983, 238-240.

684. Rudov, S.G. (FIAN). Effect of photoinduced centers on the magnetic properties of a CdCr2Se4 magnetic semiconductor. FIAN. Dissertation, 1983, 22 p. (KLDVA, 10/83, 15340).

685. Semkin, V.N.; Vlasova, R.M.; Yashin, G.Yu. (). Absence of 3.39 micron photoconductivity in the quasi-one-dimensional organic semiconductor Cs2(TCNQ)3. PSSAB, v. A77, no. 1, 1983, 421-425. (RZFZA, 83/10Ye1719).

686. Senokosov, E.A.; Stoykova, V.G.; Usatyy, A.N. (). Exciton luminescence in ZnTe layers on sapphire. IZFMB, no. 1, 1983, 63-65. (RZFZA, 83/9Ye15000).

687. Veyko, V.P.; Kotov, G.A.; Rumyantsev, D.M.; Sidorova, T.A.; Yurkevich, B.M. (LITMO). Projection laser device for processing film materials. IVUBA, no. 9, 1983, 93-96.

688. Vinetskiy, V.L.; Godenko, L.P.; Mashkevich, V.S. (IFANUk). Photoinduced transfer of electrons between local electron centers in non-metal crystals. FTVTA, no. 9, 1983, 2686-2687.

689. Yakovlev, Ye.B. (GOI). Study on the mechanisms of threshold damage to thin metal films under the action of laser radiation. GOI. Dissertation, 1983, 15 p. (KLDVA, 10/83, 15376).

690. Zakrzewski, J.; Dohnalik, T. (). AC Stark splitting by a finite bandwidth laser of moderate intensity. APTLB, v. A63, no. 3, 1983, 391-399. (RZFZA, 83/10D1028).

691. Zanadvorov, P.N.; Lebedeva, Ye.L; Moldavskaya, V.M.; Stepanov, Yu.A. (LGU). Photovoltaic effects in lithium niobate under the effect of laser radiation. FTVTA, no. 9, 1983, 2823-2825.

692. Zaretskiy, D.F.; Lomonosov, V.V.; Malov, Yu.A. (IAE). Modulation of an electrical current in an optical wave field at the boundary between two media. KVEKA, no. 10, 1983, 2081-2085.

693. Zemskiy, V.I.; Meshkovskiy, I.K. (LITMO). Increasing the optical stability of rhodamine 6G molecules adsorbed by a porous glass. PZTFD, no. 17, 1983, 1029-1031.

694. Zhakin, A.I.; Taranov, I.Ye.; Fedonenko, A.I. (). Experimental study on the conductive mechanism in polar liquid dielectrics. EOBMA, no. 5, 1983, 37-41.

673. Klyukin, L.M.; Nesrullayev, A.N.; Sonin, A.S. (). Using smectic A--nematic phase transitions for thermal recording. PZTFD, no. 20, 1983, 1263-1267.

674. Konovalov, V.P.; Son, E.Ye. (). Electron distribution function in an optical laser radiation field in a molecular gas. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 185-187.

675. Kostyshin, M.T.; Ushenin, Yu.V. (). Quantum yield of the photographic process in an As2S3-Ag system. ZNPFA, no. 5, 1983, 377-379.

676. Kravchenko, A.F.; Palkin, A.M.; Sozinov, V.N.; Shegay, O.A. (IFPSOAN). Photo-EMF induced by a photon pulse during optical transitions between Landau levels. ZFPRA, v. 38, no. 7, 1983, 328-329.

677. Kulish, N.R.; Maznichenko, A.F.; Malysh, N.I.; Bulakh, B.M. (IPANUk). Deformation of the intrinsic absorption edge in CdSe by laser radiation. UFZHA, no. 10, 1983, 1553-1555.

678. Mamedov, A.; Parimbekov, Z.A.; Rud', Yu.V.; Serginov, M. (FTI; FTIANTu). Recombination radiation from p-CdSiAs2 crystals grown without added impurities. ITUFA, no. 5, 1983, 13-19.

679. Nikitina, G.N.; Sherstyuk, V.P.; Dilung, I.I.; Shaverdova, V.G.; Kakichashvili, Sh.D. (). Study on chemical conversions and photoanisotropy in layers of bichromated gelatin with triphenylmethane dyes. FOOSD, no. 14, 1983, 56-61. (RZFZA, 83/9D1099).

680. Paramonov, G.K.; Savva, V.A.; Samson, A.M. (). Coherent effects in molecules with alternate channels of excitation. ZPSBA, v. 39, no. 4, 1983, 580-587.

681. Petrakovskiy, G.A.; Patrin, G.S. (IFSOAN). Effect of optical excitation of Ho3+ impurity ions on ferromagnetic resonance in Y3Fe5O12. FTVTA, no. 10, 1983, 3147-3149.

682. Pogosyan, A.R. (IKAN). Bulk photovoltaic effect and photogalvanomagnetic phenomena in lithium iodate and niobate crystals. IKAN. Dissertation, 1983, 18 p. (KLDVA, 10/83, 15330).

683. Prave, G.G.; Chudakov, V.S.; Yanusova, L.G. (IKAN). Feasibility for direct measurement of thermoelastic stresses in imperfect crystals subjected to laser action. KRISA, no. 5, 1983, 944-950.

661. Berru, M.K.; Gorbunov, L.M. (FIAN). Faraday effect for Alfven waves. KRSFA, no. 9, 1983, 43-47.

662. Borisevich, A.N.; Tolstorozhev, G.B.; Khalimanovich, D.M. (). Mechanism for bleaching POPOP vapor by laser radiation. ZPSBA, v. 39, no. 3, 1983, 402-406.

663. Bunkin, F.V.; Kirichenko, N.A.; Luk'yanchuk, B.S.; Morozov, Yu.Yu. (IOF). Diffusion instability in a laser radiation field. KVEKA, no. 10, 1983, 2136-2139.

664. Dabagyan, A.A.; Movsesyan, M.Ye.; Ovakimyan, T.O.; Shmavonyan, S.V. (IFI). Induced processes in potassium vapor in the presence of a buffer gas. ZETFA, v. 85, no. 4, 1983, 1203-1208.

665. Danishevskiy, A.M.; Yesayan, S.Kh.; Lemanov, V.V.; Maksimov, A.Yu. (FTI). Linear photogalvanic effect in silicon carbide. FTVTA, no. 9, 1983, 2861-2863.

666. Dykhne, A.M.; Rysev, B.P. (). Possibility for excitation of high-amplitude elastic surface waves in a solid by laser thermal excitation. Poverkhnost'. Fizika, khimiya, mekhanika, no. 6, 1983, 17-21. (RZRAB, 83/10Ye554).

667. Ganichev, S.D.; Yemel'yanov, S.A.; Yaroshetskiy, I.D. (FTI). Dynamic sign inversion in the photoresponse of n-Ge under the effect of high-power submillimeter radiation. ZFPRA, v. 38, no. 8, 1983, 370-373.

668. Gaubas, E.P. (VilGU). Photoinduced diffraction of light in inhomogeneously excited semiconductors. VilGU. Dissertation, 1982, 15 p. (KLDVA, 10/83, 15275).

669. Goncharov, A.N.; Skvortsov, M.N.; Chebotayev, V.P. (ITF). Observation of saturation absorption resonances in spatially separated fields in a beam of I2 molecules. KVEKA, no. 10, 1983, 2134-2136.

670. Gorin, Ye.A. (). Temperature dependence of near-surface band bending in lead-tin chalcogenides. FTPPA, no. 5, 1983, 847-849.

671. Gromov, G.G.; Ufimtsev, V.B. (MITKhT). Formation of periodic structures on InSb surfaces under the effect of laser radiation. DANKA, v. 272, no. 6, 1983, 1405-1408.

672. Kieburg, H.; Graefe, D.; Breitlauch, A. (). Method for retouching of positives by laser pulses. Patent GDR, no. 158975, 9 Feb 1983. (RZRAB, 83/10Ye525).

651. Vyshemirskiy, A.V.; Sofinskiy, B.A. (). Interferometer with automatic interference band counting for measuring the amplitude of vibrations of diffusely reflecting surfaces. IZTEA, no. 10, 1983, 33-34.

652. Yalyshev, Yu.I.; Murashev, G.R.; Lukash, K.I.; Pokazan'yev, V.G. (). Magnetooptic device for resonance studies on thin magnetic films. PRTEA, no. 5, 1983, 230-231.

653. Yefremov, A.N.; Marmalev, A.I.; Nikitin, M.V.; Panteleyev, V.M.; Sheroziya, A.A. (). Device for monitoring moving objects. OIPOB, no. 40, 1983, 906268.

654. Yudin, V.V.; Timakova, G.P.; Matokhin, A.V.; Dolzhikov, S.V.; Yudina, L.A. (DVGU). Laser diffraction measurement of the parameters of the correlation field of fluctuation in anisotropy in Co-P films. FTVTA, no. 7, 1983, 1953-1957.

655. Zasavitskiy, I.I.; Kosichkin, Yu.V.; Nadezhdinskiy, A.I.; Stepanov, Ye.V.; Tishchenko, A.Yu.; Shotov, A.P. (FIAN). Use of diode lasers to detect components in gases with high spectral line density. KRSFA, no. 9, 1983, 13-17.

2. Laser-Excited Optical Effects

656. Aleksakhin, I.S.; Bogachev, G.G.; Gaziy, I.I.; Zapesochnyy, I.P. (UzhGU). Device for obtaining a column of metal vapor. OIPOB, no. 29, 1982, 948411. (RZRAB, 83/10Ye557).

657. Antsygin, V.D.; Kostsov, E.G.; Sterelyukhina, L.N. (). Pyroelectric effect in strontium-barium niobate films. CVKSegne, 10th, Minsk, 19-23 Sep 1982. Materialy. Minsk, 1983, 90-99. (RZFZA, 83/10Ye1992).

658. Arakelyan, S.M.; Karayan, A.S.; Chilingaryan, Yu.S. (). Optically induced threshold reorientation of the directrix in nematics with nonadiabatic deformations. OPSPA, v. 55, no. 4, 1983, 675-678.

659. Bazhenov, V.V.; Bonch-Bruyevich, A.M.; Libenson, M.N.; Makin, V.S.; Pudkov, S.D.; Trubayev, V.V. (). Dispersion of surface e-m waves in semiconductors with periodic relief formed by high-intensity radiation. PZTFD, no. 20, 1983, 1268-1271.

660. Bedrin, A.G.; Podmoshenskiy, I.V.; Rogovtsev, P.N. (). High-current stage of an optically-induced surface discharge. ZTEFA, no. 10, 1983, 1916-1921.

640. Tomsons, Ya.Ya. (). Algorithms for solving inverse problems in hydro- and gasdynamics. CVShANIs, 16th, Gor'kiy, 17-28 May 1982. Materialy. IPF. Gor'kiy, 1982, 192-198.

641. Troitskiy, Yu.V. (IAESOAN). Thermally induced limitations to the sensitivity of multibeam interferometers with laser light sources. KVEKA, no. 10, 1983, 2039-2044.

642. Turovskiy, L.A.; Krasnov, V.F. (IAESOAN). Determining the surface resistance of photocathodes in biplanar E-O devices. PRTEA, no. 5, 1983, 169-170.

643. Ul'man, P.; Ul'man, Kh.; Shcherbakov, Yu.A. (OIYaI). Shadow method for photography in a streamer chamber. OIYaI. Soobshcheniye, no. 1-83-256, 1983, 10 p. (RZFZA, 83/10V573).

644. Vasil'chenko, G.N.; Veneraki, I.E.; Sokolov, V.A.; Reyterov, V.M. (). Physical properties of magnesium fluoride in a wide temperature range. VINITI. Deposit, no. 3158-83, 8 Jun 1983, 13 p. (RZFZA, 83/9D592).

645. Vasilenko, G.I.; Vlasov, N.G.; Gorshkov, V.I.; Manuil'skiy, A.D. (). Use of spatial light modulators in holographic interferometry. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 9-12. (RZRAB, 83/9Ye582).

646. Vasil'yeva, I.A. (). Plasma diagnostics in MHD generators. Magnito-gidrodinamich. preobrazovaniye energii. Fiziko-tekhnicheskiye aspekty. Moskva, Nauka, 1983, 227-284. (RZFZA, 83/9G261).

647. Vistin', L.K.; Yakovenko, S.S. (IKAN). Determining the structure of longitudinal domains in nematics by diffraction. KRISA, no. 5, 1983, 992-997.

648. Volchinskaya, M.I.; Mazhukin, V.I.; Chetverushkin, B.N.; Churbanov, N.G. (). Solution of two-dimensional non-steady-state problems in radiating gas dynamics. ZVMFA, no. 5, 1983, 1177-1185.

649. Voronkova, G.I.; Verbitskiy, N.N.; Goncharov, L.A.; Kalinushkin, V.P.; Murina, T.M.; Petrova, Ye.A.; Prokhorov, A.M. (Giredmet). Sources for the formation of impurity clouds in germanium. FTPPA, no. 4, 1983, 683-685.

650. Voropayev, S.G.; Knyazev, B.A. (IYaFSOAN). Absolute calibration for recording optical scattering and resonance fluorescence. PRTEA, no. 5, 1983, 179-181.

628. Reshetnikov, V.A. (MIEM). Basic relationships in a method for measuring the kinematic characteristics of particle assemblies by the spatial spectrum of images . Informelektro. Deposit, no. 105eT-D83, 15 Mar 1983, 11 p. (RZFZA, 83/10D992).

629. Reshetnikov, V.A. (MIEM). Measuring the kinematic characteristics of particle assemblies by the correlation function of multiple-exposed images. Informelektro. Deposit, no. 106eT-D83, 15 Mar 1983, 9 p. (RZFZA, 83/10D991).

630. Rezanov, A.A. (). Measuring misalignment by small angle modeling. GZKGA, no. 10, 1983, 26-30.

631. Rozanov, V.V.; Chirkin, A.S.; Shelkovnikov, N.K. (MGU). Broadening of the signal spectrum for a laser velocimeter due to the flow velocity gradient. KVEKA, no. 10, 1983, 2101-2104.

632. Safronov, G.S.; Tishko, T.V.; Garagataya, A.M. (KhGU). Polarization filtering in a holographic microscope. UFZHA, no. 10, 1983, 1472-1475.

633. Savin, A.A.; Ipatov, A.L.; Kuz'min, A.I. (FIAN). Laser interferometer for measuring the concentration of a beam plasma. FIAN. Preprint, no. 85, 1983, 20-21.

634. Shanin, V.I.; Mirovitskiy, D.I.; Pichugin, A.P. (MIREA). Device for multichannel processing of two-dimensional signals. OIPOB, no. 39, 1983, 529734.

635. Sheremet'yev, D.N.; Tyurin, Yu.M.; Fedotov, A.A.; Pervezentsev, N.I. (). Optical device for marking product surfaces. OIPOB, no. 39, 1983, 1049734.

636. Shvets, V.A. (). Feasibility of determining complex coefficients of reflection by ellipsometry. OPSPA, v. 55, no. 3, 1983, 558-560.

637. Skvortsov, Yu.S.; Lysenko, A.I.; Soytu, V.A.; Kasatkin, V.B. (). Interferometer for measuring the deviation of a surface from planar or rectilinear. OIPOB, no. 37, 1983, 1046606.

638. Sodonka, L. (). Laser arrester. Author's certificate Czechoslovakia, no. 197084, 30 Apr 1982. (RZRAB, 83/10Ye532).

639. Svarg, V. (). Device for directional adjustment of geodetic lasers without using a theodolite. Author's certificate Czechoslovakia, no. 202927, 15 Nov 1982. (RZRAB, 83/9Ye418).

617. Morozova, Ye.A.; Myl'nikov, V.S.; Morichev, I.Ye. (). Electric-field-induced unwinding of the spiral in a chiral liquid crystal composite. PZTFD, no. 11, 1983, 649-652. (RZFZA, 83/9I164).

618. Nagibina, I.M.; Khopov, V.V. (). Heterodyne speckle interferometer. OPSPA, v. 55, no. 4, 1983, 762-764.

619. Novikov, O. (). Airborne targeting-navigation systems and complexes. TVOOB, no. 8, 1983, 10-11.

620. Osten, W.; Wernicke, G. (). Application and developmental trends in holographic interferometry. Bild und Ton, no. 4, 1983, 101-105,128. (RZRAB, 83/9Ye594).

621. Panenko, V.V.; Zanadvorova, N.V.; Korotunov, V.M. (). Spatial filtering and processing of radar images. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 17-20.

622. Pashchenko, G.S. (FIAN). Complex of programs for an automatic Compton polarimeter. FIAN. Trudy, no. 147, 1983, 143-148.

623. Petru, F.; Vesela, Z. (). Method and device for generating an interference field from the interference of two light beams in a laser interferometer. Author's certificate Czechoslovakia, no. 204742, 29 Oct 1982. (RZRAB, 83/10Ye487).

624. Petru, F.; Vesela, Z. (). Method and device for generating an interference field from a light beam and laser interferometer. Author's certificate Czechoslovakia, no. 204515, 1 Nov 1982. (RZRAB, 83/10Ye488).

625. Potapov, V.T.; Shpilevskiy, R.V.; Elenkrig, B.B. (). Interference method using a fiber lightguide for measuring distance. RATEA, no. 5, 1983, 71-72. (RZFZA, 83/9Zh313).

626. Pyatnitskiy, L.N.; Rak, S.L.; Fon'kin, V.A.; Yakushev, G.G. (IVTAN). Three-frequency high-sensitivity laser interferometer. PRTEA, no. 5, 1983, 181-185.

627. Rakin, V.I.; Askhavov, A.M.; Petrovskiy, V.A. (). Holographic and shadow methods in the study of crystal growth processes. KomFAN, Syktyvkar. Novyye nauchnyye metodiki, no. 10, 1983, 31 p. (KNLTA, 36/83, 32394).

606. Koval'chuk, Yu.V.; Ostrovskaya, G.V. (). Nonlinear dispersion interferometry of a plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 242-244.

607. Krivonos, A.I. (). Device for measuring the absorption rates of complex media surfaces. OIPOB, no. 38, 1983, 974899.

608. Kruszewski, J.; Gutkowski, M. (). Thin-film elements of a structure containing wedge optical transition. OPAPB, no. 3-4, 1982, 283-292. (RZFZA, 83/9D998).

609. Kruszewski, J.; Gutkowski, M.; Jedlinski, K. (). Geodetic and two-layer lenses based on dielectric diffusion lightguides. OPAPB, no. 3-4, 1982, 293-301. (RZFZA, 83/9D999).

610. Krylov, K.I.; Mitrofanov, A.S.; Sultanov, R.V.; Tarlykov, V.A. (LITMO). Method for measuring product dimensions. OIPOB, no. 36, 1983, 372429.

611. Kulikov, V.D.; Lisitsyn, V.M. (ToPI). Spatial distribution of short-lived color centers generated by a high-current e-beam in alkali-halide crystals. VINITI. Deposit, no. 2714-83, 20 May 1983, 7 p. (RZFZA, 83/9Ye879).

612. Kuznetsova, Ye.A. (). Obtaining enlarged interference images of transparent objects. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 54-58. (RZRAB, 83/9Ye505).

613. Lekhtsiyer, Ye.N.; Metelkin, A.N. (). Evaluation of various limiting characteristics in holographic microscopy. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 49-54. (RZRAB, 83/9Ye585).

614. Lucak, O.; Halada, P. (). Device for mounting and adjusting a laser in a deep mine shaft. Author's certificate Czechoslovakia, no. 192646, 30 Sep 1981. (RZRAB, 83/10Ye533).

615. Mamayev, Yu.A. (IPF). Decoupled effects in a ring laser with a circularly anisotropic resonator under the effect of a transverse magnetic field on the active medium. IVYRA, no. 9, 1983, 1073-1080.

616. Mashek, I.Ch.; Chayka, M.P. (). Multiplex with a spherical interferometer. OPSPA, v. 55, no. 3, 1983, 407-409.

596. Ignatovich, E.I. (TsNIIMF). Use of laser technology in ship navigation. TsNIIMF. Trudy, no. 279, 1983, 58-61.

597. Inyakov, V.G.; Isayev, A.A.; Panteleyev, V.M.; Fokin, Yu.I.; Frolov, V.V.; Klyushin, A.B.; Sytnik, V.S. (). Device for assigning a reference plane. OIPOB, no. 40, 1983, 756928.

598. Ivanov, I.Ts.; Lyashenko, V.I.; Panyushkin, V.A.; Pontekorvo, D.B.; Falomkin, I.V.; Shcherbakov, Yu.A.; Eksnerova, Ya.; Yani, Ya.; Trifonov, A.; Troshev, T.; Khristov, V. (OIYaI). Laser deuterium streamer chamber-target at a pressure of 5 atmospheres under self-shunting conditions. OIYaI. Soobshcheniye, no. R13-83-154, 1983, 6 p. (RZFZA, 83/10V577).

599. Kanevskiy, V.A.; Ryazantsev, V.F.; Shelyag-Sosonko, Yu.R.; Ross, Yu.K. (IAFAEst). Remote laser probing study on the architectonics of vegetation from the reflected brightness. IZKOD, no. 5, 1983, 81-84.

600. Karpati, T. (). Ruby lasers in holographic measuring technology. KEHTA, no. 3, 1983, 77-82,3-4. (RZFZA, 83/10D1262).

601. Khatsevich, T.N. (). Optical systems of laser flat-bed scanners. Opticheskiye i optiko-elektronnyye pribory. NIIGAiK. Novosibirsk, 1982, 70-79. (RZRAB, 83/9Ye211).

602. Komissarova, I.I.; Ostrovskaya, G.V.; Filippov, V.N.; Shedova, Ye.N. (). Ways for enhancing the sensitivity of interference holographic diagnostics of a plasma in the infrared range. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 245-247.

603. Korzhenevich, I.M.; Lebedev, V.B.; Stepanov, B.M.; Fel'dman, G.G.; V'yugina, T.S. (). Device for photographing fast-flow processes. OIPOB, no. 40, 1983, 1051614.

604. Kos'mina, M.A.; Fradkin, E.Ye. (). Effect of a magnetic field on the characteristics of competitive resonance in a gas ring laser with an absorption cell. OPSPA, v. 55, no. 3, 1983, 586-588.

605. Kostyukevich, Ye.A. (IFANB). Optical sensors for pulsed pressures. PRTEA, no. 5, 1983, 209-212.

586. Dubnishchev, Yu.N.; Pavlov, V.A. (IAESOAN). E-O device for measuring linear dimensions. OIPOB, no. 36, 1983, 1044968.

587. Dvornikov, G.D.; Sishkin, I.F. (). Methods and means for transmitting the size of elements by a remote wave meter. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. GOIN. Moskva, Gidrometeoizdat, 1983, 59-64.

588. Engard, F.; Lorincz, E.; Peczeli, I.; Richter, P. (). Possibility of using laser heterodyne measuring technology. MEAUA, no. 5, 1983, 202-207. (RZRAB, 83/10Ye494).

589. Galanov, Ye.K.; Potikhonov, G.N.; Stepkina, L.V. (GOI). Longwave IR magnetopolarimeter. OPMPA, no. 9, 1983, 19-21.

590. Galkin, S.G. (). Methods for enhancing the sensitivity in holographic interferometry. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 66-69. (RZRAB, 83/9Ye583).

591. Golikov, A.P.; Gurari, M.L.; Magomedov, A.A.; Prytkov, S.I. (). Monitoring the parameters of optical elements by holographic shift interferometry. Golografich. metody i apparatura, primenyayemyye v fizich. issledovaniyakh. VNIFTRI. Moskva, 1982, 44-49. (RZRAB, 83/9Ye581).

592. Grechinskiy, D.A.; Patlakh, A.L. (GOI). Current status and prospects for the development of fiberoptic converters of mechanical magnitude. OPMPA, no. 4, 1983, 57-60. (RZFZA, 83/9D988).

593. Grigorov, D.Z.; Kolev, N.T.; Mirchev, M.B. (). Laser trimming of precision thin-film resistors. ELPBA, no. 12, 1982, 531-534. (RZRAB, 83/10Ye524).

594. Grinev, A.Yu.; Voronin, Ye.N.; Temchenko, V.S. (). Spatial rejection of radio signals by coherent optical methods. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 60-84.

595. Guzhov, V.I.; Druzhinin, A.I.; Kozachok, A.G.; Loginov, A.V.; Natal'chenko, V.V.; Sarnadskiy, V.N. (). Various problems in using mini- and micro-computers in systems for automatic processing of coherent optical information. CVShANIs, 16th, Gor'kiy, 17-28 May 1982. Materialy. IPF. Gor'kiy, 1982, 43-46.

576. Buday, A.G.; Vil'kotskiy, M.A.; Gatsikha, S.V.; Gurinovich, A.F.; Gurinovich, V.F. (). Use of time-frequency conversion for reconstructing the directional characteristics of broadband antennas by holographic methods. Metody i ustroyustva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 34-41.

577. Budzyak, A.; Bobrova, N.P.; Bentse, D.; Kashukeyeva, M.D.; Lyashenko, V.I.; Pontekorvo, D.B.; Potekhin, A.G.; Sodnomyn, E.; Sporev, D.; Falomkin, I.V.; Shcherbakov, Yu.A. (OIYaI). High-pressure laser streamer chamber-targets with small regulating additions to the filler gas. OIYaI. Soobshcheniye, no. R13-83-183, 1983, 6 p. (RZFZA, 83/10V575).

578. Bulanin, V.V.; Karfidov, D.M.; Kupriyanova, Ye.B.; Mit'ko, S.V.; Petrov, A.V.; Seteychev, K.F.; Chekmarev, A.M. (). Density fluctuations during the injection of a modulated ion beam into a plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 254-256.

579. Bulanin, V.V.; Petrov, A.V.; Umov, A.P. (). Laser radiation scattering study on the vibrations in an arc discharge plasma with a hollow cathode. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 251-253.

580. Chernyavskiy, A.D. (). Device for adjusting the resistance of film resistors. OIPOB, no. 38, 1983, 1048524.

581. Chichkan', L.A. (ITTANUkr). Study on local characteristics of heat exchange and the mechanism of boiling of a liquid by means of a laser diffraction interferometer. ITTANUkr. Dissertation, 1982, 26 p. (KLDVA, 10/83, 15369).

582. Danil'chenko, V.P.; Kashchey, V.A.; Pospelov, L.A. (). Using fiber lightguides to determine the precision of pulsed laser rangefinders. IZTEA, no. 9, 1983, 38-40.

583. Divakov, A.K.; Meshcheryakov, Yu.I.; Fadiyenko, L.P. (LGU). Velocity distribution of particles in an initial elastic compression wave in aluminum. ZTEFA, no. 10, 1983, 2050-2054.

584. Dovga, N.D. (). Temperature coefficient of the refractive index of fianite. UFZHA, no. 4, 1983, 605-607. (RZFZA, 83/9D588).

585. Drenckhan, J.; Roepcke, J.; Salewski, K.D.; Sumi, K. (). Laser system with symmetrized beams for measuring rectilinearity. FGRTA, no. 5, 1983, 209-210. (RZRAB, 83/10Ye492).

565. Baranov, P.N.; Suminov, V.M.; Klimov, A.S.; Samodelkin, V.V.; Kotel'nikov, V.Ye.; Urazov, V.Sh.; Boykov, A.A.; D'yachkova, L.M. (MATI). Device for dynamic balancing of rotors by a laser beam. OIPOB, no. 35, 1983, 1043499.

566. Bartke, Ye.; Ivanov, I.Ts.; Eksnerova, Ya. (OIYaI). Simple and inexpensive laser system for holographic information retrieval from a peak detector. OIYaI. Preprint, no. R13-83-198, 1983, 10 p. (KNLTA, 38/83, 34273).

567. Bazdenkov, S.V.; Zhukovskiy, V.G. (IAE). Dual-wave laser interferometer for measuring the density of the plasma in Tokamak devices. IAE. Preprint, no. 3742/7, 1983, 44 p. ($RZFZA, 83/9G259).

568. Belenov, E.M.; Bykovskiy, A.Yu.; Kompanets, I.N.; Parfenov, A.V.; Poluektov, I.A.; Popov, Yu.M.; Sagitov, S.I.; Soboleva, Ye.M.; Sobolev, A.G.; Uskov, A.V. (FIAN). Excitation of surface plasma oscillations and their emission in structures with spatially inhomogeneous boundary conditions. KVEKA, no. 9, 1983, 1927-1929.

569. Bessonova, S.V.; Borodkin, A.A.; Dobrolyubova, A.G.; Polyakov, Ye.V.; Sarantsev, V.P.; Semenov, A.T.; Simakov, V.A. (). Fiberoptic ring interferometer based on a multimode lightguide. KVEKA, no. 10, 1983, 2104-2107.

570. Binder, N.G.; Kovalev, M.N. (VNIIETO). Device for determining local amounts of gas impurities in metals. OIPOB, no. 36, 1983, 1045098.

571. Bogomolov, N.F.; Gnatovskiy, A.V.; Medved', N.V.; Khotyaintsev, S.N.; Yarovoy, L.K. (KPIA). Fiberoptic velocity sensor. OIPOB, no. 40, 1983, 1051430.

572. Borodin, V.I.; Luizova, L.A.; Khakhayev, A.D. (PetGU). Interferometry of a steady-state closed arc discharge plasma. TVYTA, no. 5, 1983, 970-975.

573. Borovoy, A.G.; Ivonin, A.V.; Vagin, N.I.; Volkov, S.N. (IOA). Method for determining the rotational parameters of diffusely scattering objects. OIPOB, no. 37, 1983, 1046683.

574. Brits, G.P.; Chernov, A.A. (). Stand for dynamic experiments. OIPOB, no. 41, 1983, 1052907.

575. Brodin, I.S.; Praskova, Z.M.; Chekhovskiy, S.A.; Seredyuk, O.Ye. (). Rotor-piston discrete-dynamic delivery measuring system. PRSUB, no. 10, 1983, 24-25.

715. Gastev, S.V.; Ivchenko, Ye.L.; Pikus, G.Ye.; Sokolov, N.S.; Yakovlev, N.L. (FTI). Polarization of paraexciton luminescence in copper oxide crystals in a magnetic field. FTVTA, no. 10, 1983, 3002-3008.

716. Georgobiani, A.N.; Mikulenok, A.V.; Stoyanova, I.G.; Tiginyanu, I.M.; Ursaki, V.V. (FIAN). Edge luminescence in heavily doped indium phosphide. KRSFA, no. 9, 1983, 38-42.

717. Goldovskiy, V.L.; Kraysler, O.D.; Kozubovskiy, V.R. (). Remote analysis of SO2 by correlation spectroscopy. ZPSBA, v. 39, no. 3, 1983, 494-496.

718. Goncharov, A.F. (ISAN). Raman scattering of light in the infrared range in anisotropic semiconductor crystals. ISAN. Dissertation, 1983, 22 p. (KLDVA, 9/83, 13929).

719. Gorodnichenko, O.K.; Glushkov, Ye.A.; Kovalenko, V.F. (OGU). Effect of complex formation on plastic deformation in gallium arsenide. FTVTA, no. 9, 1983, 2566-2569.

720. Gudymenko, L.F.; Gule, Ye.G.; Denisova, Z.L. (IPANUk). Luminescence spectra of CdS single crystals and films at high excitation levels. KVELA, no. 25, 1983, 56-63.

721. Guseva, Ye.V.; Mel'nikov, F.P.; Orlov, R.Yu.; Uspenskaya, M.Ye. (MGU). Raman spectroscopy in a study on mineral gas-liquid impurities. DANKA, v. 272, no. 1, 1983, 197-200.

722. Kalikov, V.N.; Markov, V.P.; Sergeyev, V.N. (). Some criteria for standardizing laser microspectral analysis of minerals. ZPSBA, v. 39, no. 4, 1983, 542-548.

723. Kazantsev, S.A.; Margolin, L.Ya.; Polynovskaya, N.Ya.; Pyatnitskiy, L.N.; Rys', A.G.; Edel'man, S.A. (). Possibilities for polarization spectroscopy of a plasma. OPSPA, v. 55, no. 3, 1983, 553-555.

724. Kharitonov, Yu.Ya.; Oleynik, I.I.; Knyazeva, N.A. (MKhTI). Vibrational spectroscopy study on thallium(I) trifluoracetate and trichloracetate. ZNOKA, no. 9, 1983, 2228-2233.

725. Klochkov, V.P. (IFANB). Laser spectroscopy of intramolecular interactions and formation of vibrational spectra of organic molecules. IFANB. Dissertation, 1982, 34 p. (KLDVA, 9/83, 13890).

726. Kolobrodov, V.G.; Sakhno, S.P.; Tymchik, G.S. (GOI). Assembly and adjustment errors in coherent optical spectral analyzers. OPMPA, no. 9, 1983, 6-9.

727. Kozlov, D.N.; Otlivanchik, Ye.A.; Sisakyan, I.N.; Smirnov, V.V. (FIAN). Automated high-resolution anti-Stokes Raman spectrometer. FIAN. Trudy, no. 147, 1983, 15-19.

728. Kozlova, N.V.; Shalaginov, V.V.; Lomova, V.N.; Shub, D.M. (NIFKhI). Spectroscopic study on pyrolytic Co_3O_4 films. ZNOKA, no. 10, 1983, 2455-2458.

729. Matyagin, Yu.V.; Rapopov, N.A.; Savchenko, A.N.; Sviridenkov, E.A. (FIAN). Intracavity laser spectroscopoy using lasers based on F2 negative-ion color centers in LiF crystals. KVEKA, no. 9, 1983, 1884-1885.

730. Mueller, W.; Haehnert, M.; Reich, P.; Brzezinka, K.W. (). Raman spectroscopic investigation of glasses of the system $CaO/Al_2O_3/SiO_2$. Crystal Research and Technology [GDR], no. 5, 1983, K49-K52. (RZFZA, 83/9Ye134).

731. Nabiyev, I.R. (MGU). New methodological approaches to the study of peptides and proteins by means of Raman spectroscopy. MGU. Dissertation, 1982, 22 p. (KLDVA, 9/83, 13970).

732. Paduchikh, L.I. (FIAN). Photoluminecence of GeS and InSe layered single crystals. KRSFA, no. 3, 1983, 9-13. (RZFZA, 83/9D735).

733. Pirogova, I.Yu.; Sukhorukov, A.P. (MGU). Theory on a nonlinear optical picosecond spectrochronograph. VMUFA, no. 5, 1983, 51-56.

734. Porotnikov, N.V.; Chaban, N.G.; Petrov, K.I. (MITKhT). Vibration spectra of Li_2SnO_3 and Li_2TiO_3 dioxides. ZNOKA, no. 10, 1983, 2466-2468.

735. Protasov, Yu.I.; Sotorova, N.N.; Stafeyev, G.V.; Cherepnev, S.M.; Shishlov, V.I.; Yakovlev, N.Ye. (). System for automation of a high-speed laser spectrometer based on an atmospheric cuvette. CVShANIs, 16th, Gor'kiy, 17-28 May 1982. Materialy. IPF. Gor'kiy, 1982, 277-281.

736. Ramendik, G.I.; Kryuchkova, O.I.; Kaviladze, M.Sh.; Mchedlidze, T.R.; Tyurin, D.A. (GEOKhI; RTsMSGruz). Relation of relative sensitivity coefficients in spark-source and laser mass spectrometry to matrix composition and operational conditions. ZAKHA, no. 10, 1983, 1749-1757.

737. Rosola, I.I.; Puga, P.P.; Khiminets, V.V.; Chepur, D.V. (). IR and depolarization Raman scattering spectra of (As2S3)x(AsI3)1-x system glasses. OPSPA, v. 55, no. 4, 1983, 695-699.

738. Sidorov, N.V.; Mukhtarov, E.I. (). Cryostat for temperature studies on crystals by polarization Raman spectroscopy. ZPSBA, v. 39, no. 3, 1983, 508-511.

739. Sinitsa, L.N. (). Intracavity laser spectroscopy. VINITI. Deposit, no. 1963-83, 1983. (IVUFA, no. 10, 1983, 127).

740. Stefanovich, Yu.T.; Shmarev, Ye.K. (). Optical spectrum analyzer. OIPOB, no. 38, 1983, 1048421.

741. Surkin, R.I.; Bakhrakh, V.L.; Iyevleva, L.D.; Karagodova, T.Ya.; Sverdlov, L.M. (). Determining the cross-section for Raman scattering by carbon monoxide with UV pumping. OPSPA, v. 55, no. 4, 1983, 685-688.

742. Tsyashchenko, Yu.P.; Danchuk, V.D. (). Nature of low-frequency Raman spectra of impurity alkali-halide single crystals. Khimicheskaya fizika, no. 5, 1983, 657-662. (RZFZA, 83/9D676).

743. Valakh, M.Ya.; Litvinchuk, A.P.; Tarasov, G.G. (IPANUk). Experimental and theoretical study on the phonon spectra of multicomponent ZnxCd1-xTeySe1-y solid solutions. FTVTA, no. 10, 1983, 3036-3041.

744. Varshal, B.G.; Denisov, V.N.; Mavrin, B.N.; Podobedov, V.B.; Sterin, Kh.Ye. (NIIS). Structure of vibrational spectra and selection rules in the hyper-Raman and Raman spectra of inorganic glasses. FKSTD, no. 5, 1983, 513-520.

745. Vasil'yev, N.N.; Gaysin, V.A.; Malov, A.V. (). Exciton luminescence in PbO[sub T] under high-power laser excitation. OPSPA, v. 55, no. 4, 1983, 780-782.

746. Vasil'yev, S.K.; Gorbachev, V.V. (). Raman study of oxide glasses. Fiziko-khimich. issledovaniya struktury i svoystv stekol i steklo-kristal. materialov. Moskva, 1982, 89-98. (RZFZA, 83/9Ye136).

747. Vasylyak, Ya.; Koprovski, Ya.; Krayevski, G.; Chervosh, E. (). Glass formation, structure and some properties of MgO-Zn(PO3)2-Al2O3 and PbO-Zn(Pl3)2-Al2O3 system glasses. FKSTD, no. 5, 1983, 549-553.

748. Vorlicek, V.; Gregora, I.; Chvostova, D. (). Raman scattering in GeS single crystals at low temperatures. PSSBB, v. Bl16, no. 2, 1983, 639-643. (RZFZA, 83/9Ye272).

749. Zalesskaya, G.A.; Blinov, S.I. (). Spectral kinetics of slow luminescence in diacetylene vapors during multiphoton vibrational excitation of triplet molecules. OPSPA, v. 55, no. 4, 1983, 657-663.

750. Zhiglinskiy, A.G.; Kund, G.G.; Morozov, A.O.; Samokhin, A.N. (). Holographic spectroscopy study on the discharge in a hollow cathode. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 248-250.

751. Zhizhin, G.N.; Moskaleva, M.A.; Sigarev, A.A.; Yakovlev, V.A. (). Spectral characteristics of the excitation of surface e-m waves by matching grating elements. OPSPA, v. 55, no. 4, 1983, 718-722.

J. BEAM-TARGET INTERACTION

1. Miscellaneous Targets

752. Askar'yan, G.A.; Rayevskiy, I.M. (FIAN). Increasing the efficiency of current generation from the effect of a laser on a coated electrode. ZTEFA, no. 9, 1983, 1871-1873.

753. Dan'shchikov, Ye.V. (IAE). Optical breakdown of gases near a surface in a CO2 laser radiation field. IAE. Dissertation, 1982, 20 p. (KLDVA, 9/83, 13933).

754. Dovbeshko, G.I.; Ogurtsov, S.V.; Puchkovskaya, G.A.; Shpak, M.T. (). Study on the photodestruction of ZnO films by surface polariton spectroscopy and x-ray structural analysis. UFZHA, no. 4, 1983, 591-595. (RZFZA, 83/9Ye985).

755. Inogamov, N.A. (). Ablation front instability during acceleration of an ablation pressure layer. PZTFD, no. 18, 1983, 1136-1139.

756. Kieburg, H. (). Beam shaping for laser materials processing. Patent GDR, no. 157685, 1 Dec 1982. (RZRAB, 83/9Ye475).

757. Korotenko, A.I. (FIAN). Dynamics of recoil pressure during vaporization of matter under the action of laser radiation. FIAN. Dissertation, 1983, 21 p.

758. Kotlyarov, V.P.; Kovalenko, V.S. (KPIA). Device for hole punching by laser. OIPOB, no. 38, 1982, 965677. (RZRAB, 83/10Ye515).

759. Kovacs, J.; Szil, E.; Nadhazi, A. (). Spectroscopic studies of a laser-produced microplasma on the surface of V2O5 single crystal and vanadium metal. APYCA, no. 3-4, 1982, 129-134. (RZFZA, 83/10D1209).

760. Latyshev, S.V. (ITEF). Numerical modeling of the interaction of laser radiation with planar targets. ITEF. Preprint, no. ITEF-66, 1983, 20 p. (KNLTA, 39/83, 35219).

761. Nanai, I.; Hevesi, I.; Michailovits, L.; Apostol, I.; Dinescu, M.; Mihailescu, I.N.; Sidorin, A.V. (). Damage to Y2O5 single crystals by high-power pulsed CO2 laser radiation. PSSAB, v. A77, no. 2, 1983, 679-684. (RZFZA, 83/10Ye1020).

762. Samokhin, A.A. (FIAN). Acoustic perturbations at various pulsed pressures. KRSFA, no. 10, 1983, 48-52.

763. Samokhin, A.A.; Sychugov, V.A.; Tishchenko, A.V. (FIAN). Mechanism for formation of periodic structures under the effect of radiation in condensed absorbing media. KVEKA, no. 10, 1983, 2139-2141.

764. Sotnikov, V.T.; Dobrotvorskiy, S.S. (). Effect of surface processing on laser breakdown of optically transparent media. Istochniki i uskoriteli plazmy, no. 6, Khar'kov, 1982, 132-138. (RZRAB, 83/9Ye520).

765. Sotnikov, V.T.; Zhuk, V.A.; Stenushkin, N.P. (). Processing by ion-plasma fluxes from laser output optics. Istochniki i uskoriteli plazmy, no. 6, Khar'kov, 1982, 138-142. (RZRAB, 83/9Ye405).

2. Metal Targets

766. Bakeyev, A.A.; Vasil'yev, L.A.; Zemskov, M.Ye.; Kazakevich, V.S.; Kovsh, I.B.; Lytkin, A.P.; Nikolashina, L.I.; Prokopenko, N.V.; Yakovlev, V.Ya. (FIAN). Absorption waves controlled by CO laser radiation. KVEKA, no. 9, 1983, 1812-1817.

767. Filippov, S.S.; Chetverushkin, B.N.; Shil'nikov, Ye.V. (). Analysis and comparison of the parameters of a plasma formed during the vaporization of a metal by an electron- and laser beam. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 190-192.

768. Roloff, H.J.; Froehlich, H.; Schiefelbein, D.; Mehlig, H.; Roder, R. (). Method for laser cutting of reactive metals. Patent GDR, no. 156953, 6 Oct 1982. (RZRAB, 83/9Ye474).

769. Rykalin, N.N.; Uglov, A.A. (). Current status and prospects of laser technology and metallurgy. Poverkhnost'. Fizika, khimiya, mekhanika, no. 6, 1983, 5-16. (RZRAB, 83/10Ye512).

770. Rykalin, N.N.; Uglov, A.A. (). Effect of concentrated energy fluxes on materials. Problems and prospects. FKOMA, no. 5, 1983, 3-18.

771. Rykalin, N.N.; Uglov, A.A.; Grebennikov, V.A.; Ignat'yev, M.B. (IMET). Formation characteristics for nitride structures synthesized by laser interaction with metal. DANKA, v. 272, no. 5, 1983, 1110-1114.

772. Samokhin, A.A. (FIAN). Effect of vaporization on the behavior of melts during laser interaction with metals. KVEKA, no. 10, 1983, 2022-2026.

773. Vedenov, A.A.; Levchenko, Ye.B. (). Maximum penetration depth of a laser beam in an absorbing medium. KVEKA, no. 10, 1983, 2107-2108.

774. Veyko, V.P.; Tuchkova, Ye.A. (). Nonequilibrium front of damage to a metal surface under the action of laser radiation. Poverkhnost'. Fizika, khimiya, mekhanika, no. 5, 1983, 15-22. (RZFZA, 83/9Ye1001).

775. Vorob'yev, V.S.; Khomkin, A.L. (IVTAN). Breakdown of atomic gases by laser radiation near metallic surfaces. PZTFD, no. 19, 1983, 1157-1160.

3. Dielectric Targets

776. Bityurin, N.M. (IPF). Initial stage in the development of optical thermochemical instabililty in solid transparent dielectrics. KVEKA, no. 9, 1983, 1934-1936.

777. Fischer, H.; Goetz, G.; Karge, H. (). Radiation damage in ion-implanted quartz crystals. Part 2. Annealing behavior. PSSAB, v. A76, no. 2, 1983, 493-499. (RZRAB, 83/9Ye569).

4. Semiconductor Targets

778. Aleksandrov, L.N. (). Formation of semiconductor epitaxial films by pulse heating crystallization or regrowth. PSSAB, v. A76, no. 1, 1983, 179-190. (RZFZA, 83/9Ye988).

779. Galyautdinov, M.F. (KaGU). Study on processes of recrystallization of ion-doped semiconductors under the action of high-power laser pulses. KaGU. Dissertation, 1982, 15 p. (KLDVA, 10/83, 15274).

780. Gayduk, P.I.; Komarov, F.F.; Solov'yev, V.S. (). Structure of ion-doped silicon antimonide after pulsed laser annealing. Poverkhnost'. Fizika, khimiya, mekhanika, no. 6, 1983, 77-79. (RZFZA, 83/10Ye1026).

781. Vasilishcheva, I.V.; Zubkov, V.M.; Savvina, R.M.; Skrotskaya, G.G.; Starodubtsev, N.F.; Talenskiy, O.N.; Poluboyarov, V.A.; Trufan, V.A. (FIAN). Laser annealing of cadmium sulfide crystals. KVEKA, no. 10, 1983, 2109-2110.

K. PLASMA GENERATION AND DIAGNOSTICS

782. Afanas'yev, Yu.V.; Basov, N.G.; Danilychev, V.A.; Molchanov, A.G. (FIAN). Laser fusion and the driver problem. FIAN. Preprint (in English), no. 258, 1983, 66 p.

783. Anan'in, O.B.; Bykovskiy, Yu.A.; Peklenkov, V.D.; Stupitskiy, Ye.L. (). Effect of a transverse magnetic field on the disintegration of a laser plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 201-203.

784. Antonov, V.M.; Zakharov, Yu.P.; Orishich, A.M.; Ponomarenko, A.G.; Posukh, V.G. (ITPM). Experimental study on the stability of the interaction of a spherical cloud of a laser plasma with a magnetic field. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 198-200.

785. Barkhudarov, E.M.; Gelashvili, G.V.; Gumberidze, G.G.; Razmadze, D.I.; Taktakishvili, M.I. (). Discharge at a solid target, generated by pulsed CO2 laser radiation. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 195-197.

786. Basov, N.G.; Osipov, M.V.; Rupasov, A.A.; Sklizkov, G.V.; Shikanov, A.S. (FIAN). Raman study on plasma turbulence. ZETFA, v. 85, no. 3, 1983, 919-931.

787. Blazhenkov, V.V.; Kirkin, A.N.; Leontovich, A.M.; Mozharovskiy, A.M.; Chuzo, A.N. (FIAN). Automation of optical measurements by means of multichannel optical analyzers. FIAN. Trudy, no. 135, 1983, 63-68.

788. Blazhenkov, V.V.; Kotenko, L.P.; Merzon, G.I.; Chuzo, A.N. (FIAN). Automatic device for studying c-w x-radiation from a laser plasma. FIAN. Trudy, no. 135, 1983, 68-76.

789. Blazhenkov, V.V.; Kotenko, L.P.; Merzon, G.I.; Chuzo, A.N. (FIAN). Use of an automatic magnetic spectrometer with semicircular focusing for observing the electron spectra of a laser plasma. FIAN. Trudy, no. 135, 1983, 60-62.

790. Blokh, M.A.; Kamolova, T.I.; Nechayev, Yu.I. (FIAN). Automatic system based on the Micronova computer and CAMAC modules for scientific research on the L-2 stellarator. FIAN. Trudy, no. 147, 1983, 79-83.

791. Boyko, V.A.; Bunkin, F.V.; Derzhiyev, V.I.; Koldashov, G.A.; Fayenov, A.Ya.; Fedosimov, A.I.; Yakovlenko, S.I. (). Observation of lasing at BeII transitions in a recombining plasma produced by a ruby laser. PZTFD, no. 17, 1983, 1067-1071.

792. Bufetov, I.A. (FIAN). Gasdynamics in the propagation of an optical discharge over a laser beam under slow heating conditions. FIAN. Dissertation, 1983, 16 p. (KLDVA, 10/83, 15269).

793. Bufetov, I.A.; Prokhorov, A.M.; Fedorov, V.B.; Fomin, V.K. (FIAN). Two gasdynamic modes of propagation of a subsonic optical discharge. KVEKA, no. 9, 1983, 1817-1824.

794. Burakov, V.S.; Naumenkov, P.A.; Razdobarin, G.T.; Tarasenko, N.V. (IFANB). Change in the conductivity of a hollow cathode plasma under the action of nanosecond laser pulses. ZTEFA, no. 9, 1983, 1721-1726.

795. Bychenkov, V.Yu.; Zozulya, A.A.; Silin, V.P.; Tikhonchuk, V.T. (). Half-integer harmonic generation in a laser-produced plasma. BPPHA, no. 3, 1983, 331-340. (RZFZA, 83, 10G108).

796. Bykovskiy, Yu.A.; Mironov, V.Ye.; Sil'nov, S.M.; Sotnichenko, Ye.A.; Sarantsev, V.P.; Shestakov, B.A. (). Characteristics of the neutral component of a laser plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 182-184.

797. Denus, S.; Chlodzinski, J.; Pokora, L.; Pisarczyk, T.; Scholz, M.; Skrzeczanowski, W.; Socha, R.; Szydlowski, A.; Wolski, J. (). Study on the effect of Nd-glass laser radiation on the plasma generated in a plasma-focus device. JTPHD, no. 2, 1982, 153-165. (RZFZA, 83/10G128).

798. Dolgov-Savel'yev, G.G.; Zhuk, V.A.; Orishich, A.M.; Ponomarenko, A.G.; Posukh, V.G.; Snytnikov, V.N. (). Study on the energy characteristics of a plama formed in the air near a target by CO2 laser radiation. ZPMFA, no. 5, 1983, 3-7.

799. Drska, L. (). Nuclear excitation by an electron transition in a laer plasma. CKCFA, v. A33, no. 2, 1983, 123-146. (RZFZA, 83/10G105).

800. Gavrilenko, V.P.; Oks, Ye.A. (VNITsISPiV). Feasibility of laser plasma diagnostics using the spectrum of hydrogen ion resonant doublets in a high-power optical field. KVEKA, no. 9, 1983, 1910-1913.

801. Gerasimenko, M.V.; Kozlov, G.I.; Kuznetsov, V.A. (). Study on the parameters of a gasdynamically stabilized stationary optical discharge plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 179-181.

802. Gladush, G.G.; Mamzer, A.F.; Yavokhin, A.N. (). Computational theoretical study on an optical discharge and the refraction phenomenon in laser beams. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 176-178.

803. Grishin, L.V.; Mitsuk, V.Ye.; Rusanov, Yu.A. (). Effect of a secondary discharge plasma on the triggering of a laser spark. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 204-206.

804. Kislov, V.I.; Luk'yanov, G.A.; Fedotov, M.A. (). Numerical study on population inversion at lithium-like beryllium ion levels in a spatially symmetric disintegration of a plasma cluster. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 416-418.

805. Koreshkova, T.B.; Pletnev, N.V.; Senatskiy, Yu.V.; Sklizkov, G.V.; Subbotin, L.K.; Shpilovoy, B.N.; Yuzhakov, A.N.; Yakushev, A.K. (FIAN). Scanning laser mirror with programmed control from a PDP 11/04 computer. FIAN. Trudy, no. 135, 1983, 3-15.

806. Korolev, Ye.A. (). Transparency of a laser plasma in the afterglow stage. ZTEFA, no. 9, 1983, 1714-1717.

807. Lebedev, V.V.; Plyasulya, V.M.; Troshin, B.I.; Chebotayev, V.P. (). Study on the optical properties of a magnesium laser plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 193-194.

808. Lebo, I.G. (FIAN). Theoretical study on the generation of spontaneous magnetic fields in spherical laser targets. FIAN. Dissertation, 1982, 15 p. (KLDVA, 10/83, 15313).

809. Lebo, I.G.; Limpoukh, I.; Rozanov, V.B. (FIAN). Numerical modeling of filamentation and self-focusing of laser beams in the corona of spherical targets. FIAN. Preprint, no. 280, 1983, 25 p.

810. Liukonen, R.A.; Trofimenko, A.M. (). Experimental study on transient processes in a laser plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 188-189.

811. Lyubov, B.Ya.; Sobol', E.N. (TsNIIChermet). Heat transfer during phase transitions under the effect of high-intensity energy fluxes. INFZA, v. 45, no. 4, 1983, 670-686.

812. Nikitin, P.I. (MFTI). Electric fields and currents from a laser spark. MFTI. Dissertation, 1982, 23 p. (KLDVA, 9/83, 13977).

813. Nikolayev, F.A.; Sklizkov, G.V.; Stukov, O.I.; Frolov, V.V.; Chebotarev, S.I.; Shelobolin, A.V. (FIAN). Necessary level of contrast of laser radiation in experiments on laser fusion. FIAN. Preprint, no. 308, 1983, 14 p.

814. Nikolayev, F.A.; Sklizkov, G.V.; Sorokin, V.V.; Stukov, O.I. (FIAN). Neutron spectrometer at the Del'fin facililty. KVEKA, no. 9, 1983, 1903-1905.

815. Nikolayev, F.A.; Stukov, O.I.; Fedotov, S.I.; Frolov, V.V.; Chebotarev, S.I.; Shelobolin, A.V. (FIAN). Operation of an optical explosive switch in a transverse ionization wave. FIAN. Preprint, no. 299, 1983, 38 p.

816. Pleshakova, R.P. (VNIIYaGG). Transport of laser radiation to a plasma-forming target in a sealed-off neutron accelerator tube with a laser ion source. VINITI. Deposit, no. 2801-83, 24 May 1983, 10 p. (DERUD, 9/83, 633).

817. Rykalin, N.N.; Uglov, A.A.; Ignat'yev, M.B. (). Study on conditions for the onset of self-oscillations in a high-pressure laser plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 378-380.

818. Sultanov, M.V. (). Practical application of a low-temperature shock-compressed plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 405-407.

819. Valuyev, A.D.; Vasin, B.L.; Pobelyan, V.A.; Sklizkov, G.V.; Sorokin, V.N. (FIAN). Automation of processing of interferograms of a laser plasma by computer and scanning optimization. FIAN. Trudy, no. 147, 1983, 68-79.

820. Vasin, B.L.; Valuyev, A.D.; Goryachuk, O.L.; Danilov, A.Ye.; May, R.G.; Sklizkov, G.V.; Fedotov, S.I.; Chaushanskiy, S.A. (FIAN). TV system for controlling the position of targets in laser fusion experiments. PRTEA, no. 5, 1983, 160-162.

821. Vasin, B.L.; Zhuravlev, Ye.Ye.; Zubkov, V.M.; Rayevskiy, V.G.; Sklizkov, G.V.; Fedotov, S.I.; Chaushanskiy, S.A. (FIAN). Automatic system for measuring the velocities of shock waves. FIAN. Trudy, no. 147, 1983, 62-68.

822. Vasin, B.L.; Valuyev, A.D.; Gorichuk, O.L.; Danilov, A.Ye.; May, R.G.; Sklizkov, G.V.; Fedotov, S.I.; Chaushanskiy, S.A. (FIAN). Television system for controlling the position of the target in experiments on laser fusion. FIAN. Preprint, no. 110, 1983, 26 p. (RZFZA, 83/9G63).

823. Zakharov, S.D.; Isakov, A.I.; Kopysov, I.A. (FIAN). Multichannel single nanosecond pulse analyzer based on a new type of analog-digital converter with a large dynamic range. FIAN. Trudy, no. 135, 1983, 27-34.

824. Zaporozhets, Yu.B.; Mintsev, V.B.; Fortov, V.Ye. (). Reflection of laser radiation from a shock-compressed xenon plasma. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 1. Leningrad, 1983, 498-500.

825. Zarin, A.S.; Mitsuk, V.Ye.; Rusanov, Yu.A. (). Low-threshold microwave breakdown of air following the action of a laser spark. CVKFNPla, 6th, Sep 1983. Tezisy dokladov, v. 2. Leningrad, 1983, 207-209.

III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS

826. Aleksandrov, K.S. (ed). (KrGU). New materials for radio-, opto- and acousto-electronics. Novyye materialy dlya radio-, opto- i akustoelektroniki. Krasnoyarsk, 1982, 157 p. (RZFZA, 83/10YE4).

827. Alekseyev, A.V.; Kabanov, M.V.; Kushtin, I.F.; Nelyubin, N.F.; Zuyev, V.A. (ed). (IOA). Optical refraction in the earth's atmosphere. Inclined paths. Opticheskaya refraktsiya v zemnoy atmosfere. Naklonnyye trassy. Novosibirsk, Nauka, 1983, 232 p.

828. All Union Conference on Low-Temperature plasma, 6th, Sep 1983. Summaries of the reports. CVKFNPla, 6th, Sep 1983. Tezisy dokladov. FTI, LGU. Leningrad, 1983, Vol. 1, 526 p., Vol. 2, 479 p.

829. Apresyan, L.A.; Kravtsov, Yu.A. (). Theory of radiation transfer. Statistical and wave aspects. Teoriya perenosa izlucheniya. Statisticheskiye i volnovyye aspekty. Moskva, Nauka, 1983, 216 p.

830. Arkhipkin, V.G.; Popov, A.K.; Timofeyev, V.P. (KrGU). Four-photon resonance parametric frequency conversion in gaseous media. Rezonansnoye chetyrekhfotonnoye parametricheskoye preobrazovaniye chastoty v gazoobraznykh sredakh. Krasnoyarsk, 1982, 99 p. (KNLTA, 44/83, 39873).

831. Bakhrakh, L.D. (ed); Kurochkin, A.P. (ed) (). Methods and devices of radio- and acoustic holography. Metody i ustroystva radio- i akusticheskoy golografii. Leningrad, Nauka, 1983, 128 p.

832. Belen'kiy, M.S. (ed) (). All Union Conference on Atmospheric Optics and Actinometry, 3rd. Summaries of the reports. Part 1. CVSAOAkt, 3rd. Tezisy dokladov, Ch. 1. Tomsk, 1983, 389 p. (RZFZA, 83/10D994).

833. Budnik, A.P.; Skripkin, A.M. (IEM). Optics of the atmosphere. Optika atmosfery. Moskva, Gidrometeoizdat, 1983, 128 p. (IEM. Trudy, no. 31/105, 1983).

834. Free-electron coherent radiation oscillators [Collection of articles translated from the English but with an addendum reviewing work in other countries including the USSR]. Generatory kogerentnogo izlucheniya na svobodnykh elektronakh. Moskva, Mir, 1983, 259 p. (RZFZA, 83/9D1148).

835. Gulyayev, Yu.V. (ed) (). All Union Conference on Acoustoelectronics and Quantum Acoustics, Saratov, 21-23 Jun 1983. Papers [In two parts]. CVKAKAku, 4th, Saratov, 21-23 Jun 1983. Materialy. Saratov, 1983, Ch. 1, 387 p., Ch. 2, 388 p. (RZFZA, 83/10Zh601,602).

836. Gutorov, M.M. (). Fundamentals of lighting engineering and light sources [2nd edition enlarged and revised]. Osnovy svetotekhniki i istochniki sveta. Moskva, Energoatomizdat, 1983, 384 p. (KNLTA, 35/83, 31571).

837. Holographic methods and equipment used in physics research. Gologaficheskiye metody i apparatura, primenyayemyye v fizicheskikh issledovaniyakh. VNIFTRI. Moskva, 1982, 91 p. (RZRAB, 83/9Ye584).

838. Il'in, V.P. (ed). (VTsSOAN). Methods for designing electrooptic systems. All Union Seminar, 4th, 10-12 Jun 1982. Proceedings. CVSMREOS, 4th, 10-12 Jun 1982. Trudy. Novosibirsk, 1982, 234 p. (KNLTA, 41/83, 37222).

839. Itigin, A.M. (ed). (NIIGAiK). Optical and optoelectronic instruments. Opticheskiye i optiko-elektronnyye pribory. Novosibirsk, 1982, 154 p. (RZFZA, 83/9D793).

840. Kireyev, I.V. (ed). (GOIN). Remote methods for measuring oceanographic parameters. All Union Seminar, 4th, Odessa, 21-25 Dec 1981. Collection of the reports. CVSNMIOP, 4th, Odessa, 21-25 Dec 1981. Sbornik dokladov. Moskva, Gidrometeoizdat, 1983, 220 p.

841. Kiselev, O.M. (ed); Cherepenin, N.D. (ed); Galeyev, R.S. (ed); Krasnov, S.I. (KaGU). Studies on physical gas dynamics [Carried out at KazNIIMM]. Issledovaniya po fizicheskoy gazovoy dinamike. Kazan', KaGU, 1983, 144 p.

842. Klyucharev, A.N.; Bezuglov, N.N. (LGU). Processes of excitation and ionization of atoms during absorption of light. Optically excited media. Protsessy vozbuzhdeniya i ionizatsiya atomov pri pogloshchenii sveta. Opticheski vozbuzhdennyye sredy. LGU, 1983, 272 p.

843. Komar, V.G. (ed). (NIKFI). Holographic cinematographer. Gologaficheskiy kinematograf, Moskva, 1982(1983), 207 p. (NIKFI. Trudy, no. 110, 1982/1983). (KNLTA, 37/83, 34027).

844. Kucheryuk, V.I.; Zayakin V.V. (TyumII). Holographic interferometry method in studying strength and stability of construction. Metod golograficheskoy interferometrii v issledovanii prochnosti i ustoychivosti konstruktsiy. TyumII, 1982, 111 p. (KNLTA, 38/83, 34392).

845. Kuz'minov, Yu.S. (). Ferroelectric crystals for controlling laser radiation. Segnetoelektricheskiye kristally dlya upravleniya lazernym izlucheniyem. Moskva, Nauka, 1982, 400 p.

846. Malashin, M.S.; Kaminskiy R.P.; Borisov, Yu.B. (). Fundamentals in designing laser ranging systems. Osnovy proyektirovaniya lazernykh lokatsionnykh sistem. Moskva, Vysshaya shkola, 1983, 208 p.

847. Mayyer, G.V. (ed). (). All Union Conference on Spectroscopy, 19th, Tomsk, 1983. Summaries of the reports. Part 3. Spectroscopy of complex molecules. CVSSpekt, 19th, Tomsk, 1983. Tezisy dokladov. Ch. 3. Spektroskopiya slozhnykh molekul. Tomsk, 1983, 352 p. (RZRAB, 83/10Ye4).

848. Methods and means for processing optical information. Papers of the seminar. Metody i sredstva obrabotki opticheskoy informatsii. Materialy seminara. Moskva, Dom nauchno-tekhnicheskoy propagandy, 1983, 152 p. (RZFZA, 83/10D906).

849. Mityashev, B.N. (ed) (FTI). Radiophysical methods for signal processing. Radiofizicheskiye metody obrabotki signalov. Moskva, 1983, 99 p. (RZFZA, 83/9Zh47).

850. Nonequilibrium processes in gas dynamics. Neravnovesnyye protsessy v gazovoy dinamike. ITMO. Minsk, 1983, 164 p. (RZFZA, 83/10I41).

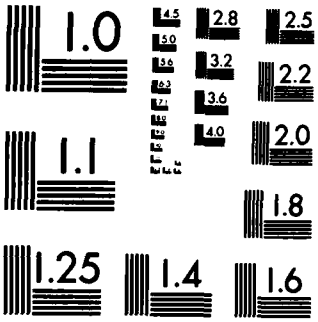
851. Petrukhin, G.D. (). Photomultipliers in radio heterodyning. Fotoelektronnyye umnozhiteli v rezhime radiogeterodinirovaniya. Moskva, Radio i svyaz', 1983, 88 p.

852. Pikhtin, A.N. (). Physical fundamentals of quantum electronics and optoelectronics. Fizicheskiye osnovy kvantovoy elektroniki i optoelektroniki. Moskva, Vysshaya shkola, 1983, 304 p.

853. Pirozhnikov, L.B. (). What is holography? [2nd edition enlarged]. Chto takoye golografiya. Moskva, Moskovskiy rabochiy, 1983, 191 p. (KNLTA, 39/83, 35194).

AD-A151 199 BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS NUMBER 67 2/2
SEPTEMBER-OCTOBER 1983(U) DEFENSE INTELLIGENCE AGENCY
WASHINGTON DC DIRECTORATE FOR SCI.. 05 DEC 84
UNCLASSIFIED DIA-DST-2700Z-001-85 F/G 20/5 NL

END
FILMED
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

854. Protsenko, Ye.D. (ed) (MIFI). Gas lasers. Gazovyye lazery. Moskva, Energoatomizdat, 1983, 83 p. (KNLTA, 37/83, 33430).

855. Shitskova, A.P. (ed) (MNIIG). Health aspects in the use of laser radiation in the national economy. Papers of the 1981 conference. Gigiyenicheskiye aspekty ispol'zovaniya lazernogo izlucheniya v narodnom khozyaystve. Materialy konferentsii 1981. Moskva, MNIIG, 19 p. (KNLTA, 37/83, 33645).

856. Sinitsa, L.N. (ed) (). All Union Conference on Spectroscopy, 19th, Tomsk, 1983. Summaries of the reports. Part 2. Spectroscopy of simple molecules. CVSSpekt, 19th, Tomsk, 1983. Tezisy dokladov. Ch. 2. Spektroskopiya prostykh molekul. Tomsk, 1983, 301 p. (RZRAB, 83/10Ye3).

857. Spornik, N.M. (GrodGU). Physical optics. Fizicheskaya optika. Grodno, 1983, 133 p. (KNLTA, 43/83, 38867).

858. Tarasov, L.V. (). Laser physics [In English, translated by Ram S. Wadhwa from the Russian: Fizika protsessov v generatorakh kogerentnogo opticheskogo izlucheniya. Moskva, Radio i svyaz', 1981]. Moskva, Mir, 1983, 360 p.

859. Tarasov, L.V. (). Lasers and their application. Lazery i ikh primeneniye. Moskva, Radio i svyaz', 1983, 152 p.

860. Toropkin, G.N. (). Fundamentals of product reliability in quantum electronics. Osnovy nadezhnosti izdeliy kvantovoy elektroniki. Moskva, Radio i svyaz', 1983, 240 p. (RZRAB, 83/9Ye7).

861. Tsesnek, L.S.; Sorokin, O.V.; Zolotukhin A.A. (). Metal mirrors. Metallicheskiye zerkala. Moskva, Mashinostroyeniye, 1983, 231 p.

862. Vinogradov, A.V. (ed) (FIAN). Methods and means for automating large-scale research devices. Metody i sredstva avtomatizatsii krupnykh issledovatel'skikh ustanovok. Moskva, Nauka, 1983, 216 p. (FIAN. Trudy, no. 135, 1983).

863. Vinogradov, A.V. (ed); Kutsenko, A.V. (ed). (FIAN). Computers and CAMAC's [computer-aided measurement and control] in scientific research. EVM i KAMAK v nauchnykh issledovaniyakh. Moskva, Nauka, 1983, 184 p. (FIAN. Trudy, no. 147, 1983).

864. Volkov, Ya.F.; Dyatlov, V.G.; Mitina, N.I.; Suprunenko, V.A. (ed). (FTIANUk). Diagnostics of a turbulent plasma. Diagnostika turbulentnoy plazmy. Kiyev, Naukova dumka, 1983, 144 p.

865. Yeliseyev, A.A (ed) (). All Union Conference on Spectroscopy, 19th, Tomsk, 1983. Summaries of the reports. Part 5. Spectrum analysis. CVSSpekt, 19th, Tomsk, 1983. Tezisy dokladov. Ch. 5. Spektral'nyy analiz. Tomsk, 1983, 313 p. (RZRAB, 83/10Ye5).

866. Zakharov, S.M. (VZPI). Instruments of quantum electronics [Part of a series: Electronic instruments]. Pribory kvantovoy elektroniki. Moskva, VZPI, 1982(1983), 47 p. (Series: Elektronnyye pribory). (KNLTA, 41/83, 37220).

867. Zuyev, V.A.; Popov, V.G. (). Photoelectric metal-dielectric-semiconductor instruments. Fotoelektricheskiye MDP-pribory. Moskva, Radio i svyaz' 1983, 160 p.

IV SOURCE ABBREVIATIONS

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

APAHA	Acta physica academiae scientiarum hungaricae
APOBB	Acta physica polonica. Series B
APSVC	Acta physica slovaca
APYCA	Acta physica et chemica. Szeged
ARPTA	Arkhiv patologii
ATPLB	Acta physica polonica. Series A
AVMEB	Avtometriya (CTC)
BPPHA	Beitraege aus der Plasmaphysik
CKCFA	Ceskoslovensky casopis pro fysiku
CMSSMODD	Mezhvedomstvennoye soveshchaniye: Statisticheskiye metody obrabotki dannykh distantsionnogo zondirovaniya okruzhayushchey sredy
CVKAKAku	Vsesoyuznaya konferentsiya po akustoelektronike i kvantovoy elektronike
CVKFNPla	Vsesoyuznaya konferentsiya po fizike nizkotemperaturnoy plazmy
CVKSegne	Vsesoyuznaya konferentsiya: Segnetoelektriki
CVSAOAkt	Vsesoyuznoye soveshchaniye po atmosfernoy optike i aktonometrii
CVShANIs	Vsesoyuznaya shkola po avtomatizatsii nauchnykh issledovaniy
CVSMREOS	Vsesoyuznyy seminar: Metody rascheta elektronno-opticheskikh sistem
CVSNMIOP	Vsesoyuznyy seminar: Nekontaktnyye metody izmereniya okeanograficheskikh parametrov
CVSSpekt	Vsesoyuznyy s"yezd po spektroskopii
CVSSSost	Vsesoyuznoye soveshchaniye: Stekloobraznoye sostoyaniye

DANAA	Akademiya nauk Armyanskoy SSR. Doklady
DANKA	Akademiya nauk SSSR. Doklady (CTC)
DBLRA	Akademiya nauk BSSR. Doklady
DEFKA	Defektoskopiya (CTC)
DERUD	Deponirovannyye nauchnyye raboty (formerly: Deponirovannyye rukopisi. Bibliograficheskiy ukazatel'. Yestyesvennyye i tochnyye nauki, tekhnika)
EKVZA	Elektrosvyaz' (CTC)
ELPBA	Elektropromishlennost i priborostroene
EOBMA	Elektronnaya obrbotka materialov (CTC)
FGRTA	Feingeraetetechnik
FKOMA	Fizika i khimiya obrabotki materialov
FKSTD	Fizika i khimiya stekla (CTC)
FOOSD	Fundamental'nyye osnovy opticheskoy pamyati i sredy
FTPPA	Fizika i tekhnika poluprovodnikov (CTC)
FTVTA	Fizika tverdogo tela (CTC)
GZKGA	Geodeziya i kartografiya (CTC)
IAAFA	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IATOA	Akademiya nauk Tadzhikskoy SSR. Izvestiya. Otdeleniye fiziko-matematicheskikh i geolog-khimicheskikh nauk
IFAOA	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana (CTC)
INFZA	Inzhenerno-fizicheskiy zhurnal (CTC)
ITUFA	Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk
IUZFA	Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IVNMA	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy (CTC)

IVUBA	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye (CTC)
IVUFA	Izvestiya vysshikh uchebnykh zavedeniy. Fizika (CTC)
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
IZSKA	Akademiya nauk SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk (CTC)
IZTEA	Izmeritel'naya tekhnika (CTC)
JTPHD	Journal of Technical Physics (Poland)
KEHTA	Kep es hangtechnika
KHPLD	Khimiya plazmy
KHVKA	Khimiya vysokikh temperatur (CTC)
KLDVA	Knizhnaya letopis'. Dopolnitel'nyy vypusk. Avtroreferaty dissertatsii
KNLTA	Knizhnaya letopis'
KRISA	Kristallografiya (CTC)
KRSFA	Kratkiye soobshcheniya po fizike (CTC)
KVEKA	Kvantovaya elektronika (journal, Moskva) (CTC)
KVELA	Kvantovaya elektronika (sbornik, Kiyev)
LFSBA	Litovskiy fizicheskiy sbornik (CTC)
MEAUA	Meres es automatika
NAUZA	Nauka i zhizn'
OIPOB	Otkrytiya, izobreteniya promyshlennyye obraztsy, tovarnyye znaki (CTC)
OPAPB	Optica applicata (Poland)
OPMPA	Optiko-mekhanicheskaya promyshlennost' (CTC)

OPSPA	Optika i spektroskopiya (CTC)
PAKBA	Promyshlennost' Armenii
PRSUB	Problemy 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 (CTC)
RATEA	Radiotekhnika (journal, Moskva) (CTC)
RTKHA	Radiotekhnika (sbornik, Khar'kov)
RTTLA	Revista transporturilor si telecomunicatiilor
RZETA	Rozprwy elektrotechniczne
RZFZA	Referativnyy zhurnal. Fizika
RZRAB	Referativnyy zhurnal. Radiotekhnika
SCEFA	Studii si cercetari de fizica
SDTEA	Sdelovaci technica
SLOZA	Slaboproudy obzor
TKTEA	Tekhnika kino i televideniya
TVOOB	Tekhnika i vooruzheniye (CTC)
TVYTA	Teplofizika vysokikh temperatur (CTC)
UFNAA	Uspekhi fizicheskikh nauk (CTC)
UFZHA	Ukrainskiy fizicheskiy zhurnal (CTC)
VANSA	Akademiya nauk SSSR. Vestnik (CTC)
VBMFA	Belorusskiy universitet. Vestnik. Seriya 1. Matematika, fizika, mekhanika
VEOFA	Vestnik oftal'mologii
VKPRB	Kiyevskiy politekhnicheskiy institut. Vestnik. Seriya radioelektronika

VLUFB	Leningradskiy universitet. Vestnik. Fizika i khimiya
VMUFA	Moskovskiy universitet. Vestnik. fizika, astronomiya (CTC)
VMUKA	Moskovskiy universitet. Vestnik. Khimiya (CTC)
ZAACA	Zeitschrift fuer anorganische und allgemeine chemie
ZAKHA	Zhurnal analiticheskoy khimii (CTC)
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)
ZPMFA	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC)
ZPSBA	Zhurnal prikladnoy spektroskopii (CTC)
ZRBEA	Zarubezhnaya radioelektronika
ZTEFA	Zhurnal tekhnicheskoy fiziki (CTC)
ZVMFA	Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki (CTC)

V. AUTHOR AFFILIATIONS

BGU
  Belorusskiy gos universitet
  Belorussian State University
DVGU
  Dal'nevostochnyy gos universitet
  Far Eastern State University, Vladivostok
EIS
  Elektrotekhnicheskiy institut svyazi
  Electrotechnical Institute of Communications, Leningrad
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
FTIANTu
  Fiziko-tekhnicheskiy institut AN TurkSSR
  Physicotechnical Institute, Academy of Sciences Turkmen SSR, Ashkhabad
FTIANUk
  Fiziko-tekhnicheskiy institut AN UkrSSR
  Physicotechnical Institute, Academy of Sciences Ukrainian SSR, Khar'kov
GEOKhI
  Institut geokhimii i analiticheskoy khimii im Vernadskogo AN SSSR
  Institute of Geochemistry and Analytical Chemistry imeni Vernadskiy, Academy of Sciences USSR, Moscow
GGU
  Gor'kovskiy gos universitet
  Gor'kov State University
Giredmet
  Gos NI i proyektnyy institut redkometallicheskoy promyshlennosti
  State Scientific Research and Planning Institute of the Rare Metals Industry
GOI
  Gosudarstvennyy opticheskiy institut im Vavilova
  State Optical Institute imeni Vavilov, Leningrad
GOIN
  Gosudarstvennyy okeanograficheskiy institut
  State Oceanographic Institute

GrodGU
Grodnenskiy gos universitet
Grodno State University

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

IAFAEst
Institut astrofiziki i fiziki atmosfery AN EstSSR
Institute of Astrophysics and Physics of the Atmosphere, Academy of Sciences Estonian SSR, Tallin

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

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

IFANEst
Institut fiziki AN EstSSR
Institute of Physics, Academy of Sciences Estonian SSR

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

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

IFPSOAN
Institut fiziki poluprovodnikov SOAN
Institute of Semiconductor Physics, Siberian Branch Academy of Sciences USSR, Novosibirsk

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

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

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

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

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

IMFS
Institut mekhaniki i fiziki
Institute of Mechanics and Physics, Saratov

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

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

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

IONKhANUkr
Institut obshchey i neorganicheskoy khimii AN UkrSSR
Institute of General and Inorganic Chemistry, Academy of Sciences Ukrainian SSR, Kiev

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

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

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

IRFEANUk
Institut radiofiziki i elektroniki AN UkrSSR
Institut 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

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

ITK
Institut tekhnicheskoy kibernetiki AN BSSR
Institute of Technical Cybernetics, Academy Sciences Belorussian SSR

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

ITTANUkr
Institut tekhnicheskoy teplofiziki AN UkrSSR
Institut of Technical Thermophysics, Academy of Sciences Ukrainian SSR

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

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

KaGU
Kazanskiy gos universitet
Kazan' State University

KazNIIMM
NII matematiki i mekhaniki Kazanskogo gos universiteta
Scientific Research Institute of Mathematics and Mechanics at Kazan' State University

KGU
  Kiyevskiy gos universitet
  Kiev State University
KhGU
  Khar'kovskiy gos universitet
  Khar'kov State University
KIIGA
  Kiyevskiy institut inzhenerov grazhdanskoy aviatsii
  Kiev Institute of Civil aviation Engineers
KPIA
  Kiyevskiy politekhnicheskiy institut
  Kiev Polytechnic Institute
KrGU
  Krasnoyarskiy gos universitet
  Krasnoyarsk State University
KubU
  Kubanskiy gos universitet
  Kuban' State University
KuyGU
  Kuybyshevskiy gos universitet
  Kuybyshev State University
LatGU
  Latviyskiy gos universitet
  Latvian State University
LGU
  Leningradskiy gos universitet
  Leningrad State University
LGUNIIKhim
  NII khimii Leningradskogo gos universiteta
  Scientific Research Institute of Chemistry at
    Leningrad State University
LITMO
  Leningradskiy institut tochnoy mekhaniki i optiki
  Leningrad Institute of Precision Mechanics and Optics
LIYaF
  Leningradskiy institut yadernoy fiziki AN SSSR
  Leningrad Institute of Nuclear Physics, Academy of
    Sciences USSR
LOMO
  Leningradskoye optiko-mekhanicheskoye obshchestvo
  Leningrad Optomechanical Society
LPI
  Leningradskiy politekhnicheskiy institut
  Leningrad Polytechnic Institute
MATI
  Moskovskiy aviatsionnyy tekhnologicheskiy institut
  Moscow Aviation Technological Institute
MEI
  Moskovskiy energeticheskiy institut
  Moscow Power Engineering Institute

SOBOL' E N 82
SOBOLEV A G 59
SOBOLEV N N 12
SOBOLEVA L V 26
SOBOLEVA S D 20
SOBOLEVA YE M 59
SOCHA R 81
SODNOMYN E 60
SODONKA L 65
SOFINSKIY B A 67
SOKHRANSKIY S S 40
SOKOLOV A P 48
SOKOLOV I V 34
SOKOLOV N I 50
SOKOLOV N S 73
SOKOLOV V A 66
SOKOLOV V I 44
SOKOLOV V N 51,56
SOKOLOVA YE A 53
SOKOLOVSKIY A A 40
SOLDATOV A N 1,7,13
SOLODUKHIN A S 11
SOLOMATIN I I 3
SOLOMATIN V S 27
SOLOMATOV V I 58
SOLOV'YEV A S 42
SOLOV'YEV V S 79
SOMER M 72
SOMSIKOV V M 45
SON E YE 69
SONIN A S 69
SORKIN A M 12
SOROKA A M 10,12
SOROKIN O V 87
SOROKIN V N 83
SOROKIN V V 82
SOROKIN YU M 46
SOROKINA L P 4
SOSKIN M S 3,32,48,49,51
SOSNIN V P 40
SOTNICHENKO YE A 80
SOTNIKOV V T 77
SOTOROVA N N 74
SOYFER V A 21
SOYTU V A 65
SOZINOV V A 34
SOZINOV V N 69
SPECHT E 22
SPERANSKIY O A 24
SPICHKIN G L 18
SPIRIDENKO L I 40
SPOREV D 60
SPORNIK N M 87
SPRACHTA A 19
SPROBAR F 5
STABINIS A 28
STABNIKOV M V 58
STAFEYEV G V 74
STANCIU I 23
STARCHAYEVA YE YE 23
STARIK A M 8
STARIKOV S N 49
STARODUBTSEV N F 53
STARODUBTSEV A I 54
STARODUBTSEV N F 79
STAROSTIN A N 11,53,54
STASEL'KO D I 49
STASHKEVICH I V 50
STEBA A M 29
STEFANOVICH YU T 75
STEL'MAKH M F 2
STENUSHKIN N P 77
STEPANOV B M 23,50,62
STEPANOV V A 20,27
STEPANOV YE V 67
STEPANOV YU A 70
STEPKINA L V 61
STERELYUKHINA L N 23,67
STERIAN P 27
STERIN KH YE 75
STOECKEL K G 41
STOLOV YE G 25
STOYANOVA I G 73
STOYKOVA V G 70
STRATSKEVICH L A 1
STREL'CHENYA V M 8
STRELKOV G M 46
STREL'TSOV A P 10
STRELOV V I 33
STRIZHEVSKIY V L 28,29
STROKAN' G P 8
STUKOV O I 82
STUPAK M F 2,29
STUPITSKIY YE L 79
STYSIN V YE 56,57
SUBBOTIN L K 81
SUKHANOV V B 1,7
SUKHANOV V I 48,49
SUKHAREVA L K 2
SUKHORUKOV A P 43,46,74
SUKHOVERKHOVA L G 52
SULAKSHIN S S 20
SULIMA O V 4
SULTANOV M V 83
SULTANOV R V 63
SUMI K 60
SUMINOV V M 59
SUPRUNENKO V A 88
SURAN V V 53
SURKIN R I 75
SUSHCHINSKIY M M 29
SUSHKEVICH T N 29
SUSLIKOV L M 22
SUSLOV A M 25
SUYNOV S KH 39
SUYNOV V KH 39
SVARG V 65
SVERDLOV L M 75
SVET V D 52
SVICH V A 57
SVIRIDENKOV E A 74
SVIRIDOV K N 47
SVIRKUNOV P N 43,46
SWIETLICKI B 31
SYCHUGOV V A 77
SYSOYEV V K 36,37,40
SYTENKO T N 71
SYTNIK V S 62
SZIL E 77
SZUMOWSKI L 9
SZUSTAKOWSKI M 30,31
SZYDLOWSKI A 81

TABARIN V A 9
TADZHI-AGLAYEV KH G 33
TAKTAKISHVILI M I 79
TALANOV V I 29
TALENSKIY O N 79
TAL'ROZE V 17
TAL'ROZE V L 18
TAMASHYAVICHYUS A V 23
TARANENKO L V 5
TARANENKO V B 49
TARANENKO V G 48
TARANOV I YE 70
TARASENKO N V 80
TARASENKOV V N 58
TARASOV A A 2
TARASOV G G 75
TARASOV I S 5
TARASOV L V 87
TARASOV V M 6
TARLYKOV V A 63
TARUMYAN S KH 7
TASZNER A 12
TEMCHENKO V S 61
TERENT'YEV V YE 39
TIGINYANU I M 73
TIKHOMIROV S V 56,57
TIKHONCHUK V T 29,30,80
TIKHONOV B A 56
TIMAKOVA G P 67
TIMOFEYEV V P 84
TIMONIN P V 9
TIMONOV N T 58
TIMOSHECHKIN M I 33
TISHCHENKO A V 41,77
TISHCHENKO A YU 67
TISHCHENKO R P 3
TISHKO T V 65
TITARCHUK V A 16
TITOVITSKIY I A 51
TOLMACHEV G N 8
TOLMACHEV V G 19
TOLSTIK A L 47
TOLSTOROZHEV G B 68
TOLSTOV V F 17
TOLSTOY M N 6
TOMASHEVSKIY YU F 55
TOMASHOV V N 17
TOMBAK M A 58
TOMSONS YA YA 66
TOPKOV A N 57
TOPOROV V V 71
TORJANOWSKI W 9
TOROPKIN G N 87
TRAVKOV I V 19
TRAYBER A S 27
TRET'YAK V I 38
TRIFONOV A 62
TRINCHUK B F 20
TROFIMENKO A M 82
TROFIMOV A N 14
TROFIMOV V A 46
TROITSKIY V O 1
TROITSKIY YU V 66
TRON'KO V D 28
TROSHEV T 62
TROSHIN B I 82
TRUBAYEV V V 67
TRUFAN V A 79
TRUSHIN S A 11
TSARYUK O V 57
TSEPELEV V YE 10
TSERKOVNYY S I 8
TSESNEK L S 87
TSKHAY S N 8
TSURKO V V 37
TSYASHCHENKO YU P 75
TSYBA P G 20
TUCHIN V V 9
TUCHKOVA YE A 78
TUMAKOV A G 46
TUPIKIN G V 37
TUROVSKIY L A 66
TVERDOKHLEB P YE 52

RUD' YU V 69
RUDNITSKIY YU P 44
RUDOV S G 70
RUMYANTSEV D M 70
RUMYANTSEV V D 4
RUPASOV A A 79
RUSANOV YU A 81,83
RYABCHUK S V 54
RYABOV A P 38
RYABUKHO V P 51
RYAKHIN A D 47
RYAZANOV A V 58
RYAZANOV M I 42
RYAZANTSEV V F 62
RYKALIN N N 78,83
RYKHLOV A F 21
RYS' A G 73
RYSEV B P 30,68
RYSIN V V 57
RYZHECHKIN S A 32
RYZHIY V I 6

SAARI P M 51,54
SADYKOVA SH Z 49
SAFARYAN F P 2
SAFONOV S A 12
SAFRONOV G S 51,65
SAGATELYAN D M 21
SAGINURI M I 4
SAGITOV S I 59
SAKHNO S P 74
SAKIYEV S N 31
SALEWSKI K D 60
SAL'KOVA YE N 48,51
SALIVON G I 29
SALYUK V A 36
SAMARTSEV V V 27
SAMEDOV A B 45
SAMODELKIN V V 59
SAMOKHIN A A 77,78
SAMOKHIN A N 76
SAMSON A M 69
SARADZHISHVILI N M 4
SARANTSEV V P 59,80
SARDYKO V I 19
SARKISOV O M 54
SARNADSKIY V N 61
SARTAKOV B G 53
SAVCHENKO A N 74
SAVCHUK A V 48,51
SAVEL'YEV I I 9
SAVILOVA YU I 52
SAVIN A A 21,65
SAVINOV S YU 8
SAVKIN V V 18
SAVKA V A 69
SAVVINA R M 79
SAYKIN A S 49
SAZONOV A I 52
SCHARZ J 25
SCHIEFELBEIN D 78
SCHIELICKE R 23
SCHMIDT D 41
SCHMIDT K 39
SCHOLZ M 81
SCHUBERT D 25
SCHWERDTNER A 24
SELEZNEVA L A 13
SEMENCHIK V G 49,51
SEMENKOV V P 21
SEMENOV A S 4,38
SEMENOV A T 59
SEMENOV A V 23
SEMENOV L P 42,44,46
SEMENOV P F 58
SEMENOV P M 29
SEMENOV V YE 19
SEMENYCHEV L N 15
SEMICHEV A YA 16
SEMIOKHIN I A 53
SEMKIN V N 70
SENATSKIY YU V 81
SENDERAKOVA D 42
SEN'KO V V 41
SENOKOSOV E A 70
SEPMAN V YU 8
SERDOBINTSEV P YU 17
SERDYUK V M 52
SEREBRYAKOV V A 2
SEREDYUK O YE 59
SEREGIN A M 47
SEREGIN S L 6
SERGEYEV A B 32
SERGEYEV P B 16
SERGEYEV S N 22
SERGEYEV V N 73
SERGINOV M 69
SEROV A V 33
SEROV R V 22
SETEYCHEV K F 60
SEYRANYAN K B 2
SHABALOV V V 31
SHALAGINOV V V 14
SHAL'NOVA N I 14
SHANIN V I 65
SHAPIRO D A 19
SHAPIRO YE SH 58
SHAPOVALOV S L 58
SHARKOV V F 15,56
SHATKOVSKIY YE V 23
SHAVERDOVA V G 69
SHAVROV V G 51
SHCHEBELIN V G 53
SHCHEKOTUROV L V 24,25
SHCHERBAKOV A A 6,55
SHCHERBAKOV I A 1,2
SHCHERBAKOV YE A 23
SHCHERBAKOV YU A 60,62,66
SHEDOVA YE N 62
SHEGAY O A 69
SHEKHTMAN V L 71
SHELKOVNIKOV N K 65
SHELOBOLIN A V 82
SHEL'PYAKOV V YU 14,15
SHELYAG-SOSONKO YU R 62
SHEREMET'YEV D N 65
SHEROZIYA A A 67
SHERSTYUK V P 52,69
SHESTAKOV A V 2
SHESTAKOV B A 24,80
SHEVCHENKO S B 50,52
SHEVCHENKO YU I 19
SHEVEL' S G 5
SHEVELEVA T YU 45
SHEVERA V S 17
SHEVEREV V A 8
SHEVYAKOV M M 43
SHEVYREV A S 13
SHEYNKMAN M K 52
SHIGORIN V D 26
SHIKANOV A S 79
SHIL'NIKOV YE V 78
SHIPULO G P 26
SHISHLOV V I 74
SHITSKOVA A P 87
SHKADAREVICH A P 1,2
SHLITERIS E P 11
SHLYAPOCHNIKOVA N S 29
SHMAL'KO A V 38
SHMAREV YE K 75
SHMAVONYAN S V 68
SHMELEV A K 48
SHMIKK D V 53
SHMOTKIN YU S 15
SHOTOV A P 4,67
SHPAK M T 76
SHPILEVSKIY R V 64
SHPILOVOY B N 81
SHPUGA S M 48
SHTARKOV A L 53
SHTOKMAN M I 36
SHUAIBOV A K 17
SHUB D M 74
SHUBIN N N 17
SHULAKOV V N 11
SHULEKIN S F 39
SHUL'GA A YA 56
SHUR K 37
SHUSHPANOV O YE 37
SHVETS V A 65
SHVEYGERT V A 19
SIDORENKO YU K 46
SIDORIN A V 77
SIDOROV N V 75
SIDOROVA T A 70
SIDOROVICH V G 29
SIGAREV A A 76
SIGITOV D K 49
SILIN V P 29,30,80
SIL'NOV S M 80
SIMAKOV A N 30
SIMAKOV V A 59
SINITSA L N 75,87
SINITSYN G V 1,26
SINTYURIN G A 46
SIROTKIN A A 10
SISAKYAN I N 21,33,55,74
SISAKYAN YE V 21
SISHKIN I F 61
SITNIKOV S F 44
SIVOVOLOV V A 44
SKLIZKOV G V 6,79,81,83
SKOBELKIN O K 36
SKOROBOGATOV G A 27
SKOVOROD'KO S N 13
SKRIPACHEV I V 37
SKRIPKIN A M 43,46,84
SKROTSKAYA G G 79
SKRZECZANOWSKI W 81
SKVORTSOV A M 4
SKVORTSOV M N 68
SKVORTSOV YU S 65
SLESAREV A G 43
SLIVKA V YU 22
SMAKOVSKIY YU B 10
SMIRNITSKIY V B 5
SMIRNOV A S 19
SMIRNOV V A 1,2,6
SMIRNOV V I 29
SMIRNOV V L 38
SMIRNOV V V 45,53,55,74
SMIRNOVA V A 22
SMOLINSKI A 41
SMOL'YANINOVA I S 58
SNOPKO V N 57
SNYTNIKOV V N 81

OVAKIMYAN T O 68
OVCHINNIKOV V M 25
OVSYANNIKOV V A 36

PADALKO S A 33
PADUCHIKH L I 74
PAL' A F 54
PALKIN A M 69
PANASYUK V F 11
PANCHENKO M V 46
PANCHISHIN I M 72
PANENKO V V 64
PANKOV B N 52
PANKOVA R B 20
PANOV V P 42
PANTELEYEV V M 62,67
PANYUSHKIN V A 62
PAPERNYY S B 2
PARAMONOV A A 58
PARAMONOV G K 69
PARFENOV A V 59
PARIMBEKOV Z A 69
PARKHOMENKO YU G 36
PARSHIN G D 14
PARYGIN V N 24,25,31
PASHCHENKO G S 57,64
PASHIN S YU 24
PASHININ P P 1,22,55
PASHKIN S V 7
PASHKOV V A 2
PASMANIK G A 22,47
PASTOR A A 17
PATLAKH A L 61
PATRIN G S 69
PATSEVICH V YE 20
PAUL H 8
PAUL' KH 8
PAVLOV V A 61
PAVLOV V N 43
PECHENEGOV S M 20
PECHENOV A N 20
PECZELI I 61
PEKA G P 4
PEKLENKOV V D 79
PELIPENKO V I 48,55
PEN YE F 52
PENDYUR S A 17
PEREVALOV M G 4
PEREVOZCHIKOV A N 23
PERVEZENTSEV N I 65
PESHKO I I 32,51
PETRAKOVSKIY G A 69
PETRENKO V T 45
PETROV A V 60
PETROV D V 31,39
PETROV K I 74
PETROV S A 58
PETROV V A 3
PETROVA M D 8
PETROVA V Z 38
PETROVA YE A 66
PETROVSKIY A N 27
PETROVSKIY V A 64
PETRU F 64
PETRUKHIN G D 86
PETUKHOV V O 11
PEVZNER YA B 20
PEYSAKHSON I V 21
PICHUGIN A P 65
PICHUGIN S YU 18
PICHUGIN V V 54
PIKHTIN A N 86
PIKUS G YE 73
PILIPETSKIY N F 29
PIMENOV A S 2
PIROGOVA I YU 74
PIROZHNIKOV L B 86
PIRUZYAN E V 7
PISARCZYK T 81
PISKARSKAS A 28
PIS'MENNYY V D 54
PIVOVAROV N N 37
PLESHAKOVA R P 82
PLETNEV N V 81
PLETNEVA N I 25
PLOTNICHENKO V G 37,40
PLYASULYA V M 82
POBELYAN V A 83
PODMOSHENSKIY I V 67
PODOBEDOV V B 75
PODTYNCHENKO S G 72
POGIBEL'SKIY A P 30
POGOSYAN A R 69
POHLACK H 22
POKAZAN'YEV V G 67
POKORA L 81
POKORMYAKHO N G 57
POKOROVSKIY YU A 56
POLEVOY B I 13
POLKANOV YU A 45
POLUBOYAROV V A 79
POLUEKTOV I A 59
POLYAKOV S I 58
POLYAKOV YE V 59
POLYNOVSKAYA N YA 73
POL'ZE S 21
PONOMARENKO A G 79,81
PONOMAREV A L 41
PONOMAREV D I 12
PONOMAREV YU N 42
PONOMAREVA S B 42
PONTEKORVO D B 60,62
POPESCU I M 27
POPKOV O I 40
POPKOVA L I 40
POPOV A I 49
POPOV A K 84
POPOV V G 88
POPOV V V 21
POPOV YU M 20,59
POPOVICHEV V I 29
POROTNIKOV N V 74
PORTNOVA S M 26
PORTNOY YE L 4,5
POSPELOV L A 60
POSUKH V G 79,81
POTAPOV V T 40,64
POTEKHIN A G 60
POTEMKIN A K 29
POTERYAYEV A G 11
POTIKHONOV G N 61
POVETKIN V A 23
PRASKOVA Z M 59
PRAVE G G 69
PRIDATKO G D 22
PRILYUK O M 22
PRISHIVALKO A P 45
PROKHOROV A M 1,2,3,21,23 33,66,80
PROKHOROV V P 40
PROKOPENKO N V 77
PROSKE D 37
PROTASOV YU I 74
PROTASOV YU S 53
PROTS' M I 2
PROTSENKO YE D 12,87
PRYTKOV S I 61
PUCHKOVSKAYA G A 76
PUDKOV S D 67
PUGA P P 75
PUGOVKIN A V 31
PUKINSKAS G 71
PUL'KIN S A 6
PUSCAS N 27
PUSHKAROVA K S 48
PUSTOVALOV T M 55
PUSTOVALOV V K 45
PUZYREV V V 41
PYASETSKIY V B 57
PYATNITSKIY L N 64,73

RABA O B 2
RABINOVICH E M 9
RAGUL'SKIY V V 28,29
RAK S L 64
RAKHVAL'SKIY M P 3
RAKIN V I 64
RAKOV SH A 45
RAKUSHIN YU A 51
RAMENDIK G I 75
RAPOPOV N A 74
RASPONIN A N 44
RAYEVSKIY I M 76
RAYEVSKIY V G 83
RAYKHERT V A 55
RAYKOV S N 72
RAZDOBARIN G T 80
RAZMADZE D I 79
RAZZHIVIN B P 31
REBANE A K 51,54
REGAN Y P 40
REICH P 74
REMIGAYLO YU L 11
REMIZOVICH V S 42
RENSCHEN C 23,41
REPNIKOV N N 20
RESHETNIKOV V A 65
REUTOVA N M 34
REVIN I D 33
REYTEROV V M 66
REZANOV A A 65
RICHTER P 61
RIDEL' G 51
RISTICI M 9
RIVLIN L A 32
RODER R 78
RODIONOV N B 56
ROEPCKE J 60
ROGOV S A 30
ROGOVTSEV P N 67
ROGOZKIN D B 42
ROLAND K 20
ROLOFF H J 78
ROMANIUK R 40
ROMANOV V P 57
ROSOLA I I 75
ROSS YU K 62
ROZANOV V B 82
ROZANOV V V 65
ROZENBLYUM YU Z 58
ROZHDESTVIN V N 35
ROZHKOV B K 50
RUBANOV A S 50
RUBINOV A N 2,32,71
RUBINOV YU A 56
RUBTSOVA N N 54

MARIS Z 9
MARKILOV A A 49
MARKIN YE 17
MARKOV V P 73
MARKOV YU V 40
MARMALEV A I 67
MARTYNOVICH YE F 32
MARUTKIN A Z 18
MASALOV A V 26
MASHEK I CH 63
MASHKEVICH V S 70
MASKEVICH S A 72
MASLAKOV S YU 3
MASLYANITSYN I A 26
MASYCHEV V I 36
MATISOV B G 39
MATOKHIN A V 67
MATSKO M G 72
MATVEYEV I N 10,12
MATVEYEV O I 53
MATYAGIN YU V 74
MAVRIN B N 75
MAVRITSKIY O B 27
MAY R G 83
MAYMISTOV A I 42
MAYOROV A P 6
MAYOROVA N I 5
MAYSOV G V 1
MAYYER G V 7,86
MAZAYEV N V 71
MAZHUKIN V I 66
MAZNICHENKO A F 69
MAZUR L YE 52
MAZURENKO YU T 32
MAZUROV I V 44
MCHEDLIDZE T R 75
MEDIANU R 9
MEDVED' N V 59
MEDVEDEV A F 33
MEHLIG H 78
MELIK-SARKISYAN A A 7
MELIKYAN A O 27
MEL'NIK I V 57
MEL'NIKOV A V 3
MEL'NIKOV F P 73
MEN'SHENINA N F 33
MERKISHIN G V 24
MERZLYAKOV N S 48
MERZON G I 80
MESHCHERYAKOV YU I 60
MESHKOVSKIY I K 70
METELKIN A N 63
MICHAILOVITS L 77
MICHENKO A I 71
MIHAILESCU I N 77
MIKHALEV N I 49
MIKHAYLENKO YU M 56
MIKHAYLOV D K 58
MIKHAYLOV M D 54
MIKHAYLOV N I 35
MIKHAYLOV S I 47
MIKHAYLOV V P 24
MIKHEYEV L D 17
MIKHEYEV P A 40
MIKHNOV S A 1
MIKULENOK A V 73
MILL' B V 33
MILSTEYN A I 33
MINASYAN G R 27
MINAYEV V P 23
MINAYEV V S 49
MINTSEV V B 83
MIRCHEV M B 61
MIRONOV V YE 80
MIRONOV YU A 49
MIROV S B 1
MIROVITSKIY D I 23,65
MIRZA S YU 7
MISHIN V I 14,54
MISHURNYY V A 5
MITEV V M 44,45
MITINA N I 88
MIT'KO S V 60
MITROFANOV A S 63
MITROFANOV T M 56
MITSUK V YE 81,83
MITYASHEV B N 86
MIZERINA N YU 6
MKHEIDZE G P 21
MOGILEVICH V N 41
MOGIL'NAYA T YU 9
MOLCHANOV A G 79
MOLDAVSKAYA V M 70
MOLODTSOV S N 42
MONEKE I 71
MONOSOV YA A 51
MORGUN YU F 2
MORICHEV I YE 25,64
MOROZOV A O 76
MOROZOV V N 32
MOROZOV V P 1
MOROZOV YU YU 68
MOROZOVA YE A 64
MORY S 20
MOSKALETS O D 51
MOSKALEVA M A 76
MOSKALEVA T V 29
MOSKOVETS YE V 54
MOVSESYAN M YE 68
MOZHAROVSKIY A M 3,80
MUCHNIK M L 14,54
MUELLER W 74
MUKASHEVA S N 45
MUKHAMEDGALIYEVA A F 54
MUKHTAROV E I 75
MUKIMOV K M 28
MURASHEV G R 67
MURASHOVA V A 57
MURAVITSKIY M A 2,24
MURAV'YEV A A 32
MURINA T M 3,66
MURZIN A G 6,19
MUSIKHIN V A 53
MUZALEVSKIY V YE 21
MYAGKOV A A 24
MYL'NIKOV V S 64
MYSOVSKIY S N 32

NAATS I E 44
NABIYEV I R 74
NABOKO V N 45
NADEZHDINSKIY A I 67
NADHAZI A 77
NAGAYEV A I 24
NAGIBINA I M 64
NAKHODKIN N G 49
NAKWASKI W 40
NANAI I 77
NAPARTOVICH A N 11
NAPARTOVICH A P 14
NASIBOV A S 4
NATAL'CHENKO V V 61
NAUMENKOV P A 80
NAUMOVA I I 28
NAYDENKOV A F 58
NAZARENKO B P 1
NAZARYAN A A 7
NECHAYEV S V 72
NECHAYEV YU I 80
NECHAYEVA T A 22
NEKRASOV A A 11
NELYUBIN N F 84
NEMENOV M I 4
NESRULLAYEV A N 69
NEZGURETSKIY B S 1
NEZHENTSEV B YU 19
NICOLAU-REBIGAN S 9
NIKANOROVA YE A 31
NIKIFOROV S M 53
NIKITIN M V 67
NIKITIN P I 82
NIKITIN S YU 26
NIKITIN V V 4
NIKITINA G N 69
NIKOLASHINA L I 77
NIKOLAYEV F A 82
NIKOLAYEV F YA 50
NISHCHEV G I 40
NITSOLOV S L 44,45
NIZHIN A M 50
NORKUS V 41
NOVAKOVSKIY V 50
NOVIKOV A D 48
NOVIKOV O 64
NOVIKOV S S 11,15,32
NOVOBRANTSEV I V 10
NOVODVORSKIY O A 21,53
NOVOTNY J 5
NOVOZHILOV S YU 36
NOWAKOWSKI W 50

OBIDIN A Z 20
OBRAZTSOV V S 52
ODINTSOV A I 10
ODULOV S G 13,48
ODUVALINA I A 38
OGURTSOV S V 76
OKHOTNIKOV O G 3
OKISHEV A V 6
OKS YE A 81
OKTYABR'SKIY S R 71
OLEYNIK I I 73
ORAYEVSKIY A 17
ORAYEVSKIY A N 17,53
ORBACHEVSKIY L S 35
ORISHICH A M 79,81
ORLOV M YU 15,54
ORLOV R YU 73
ORLOV V K 53
ORLOV YE P 30
ORLOV YU V 54
ORLOVICH V A 28
ORLOVSKIY V M 11
OROSZ J 40
OSHEMKOV S V 72
OSIKO V V 1,2,33
OSIPOV M V 79
OSIPOV V V 11,22
OSTEN W 64
OSTROUMOV V G 1
OSTROVSKAYA G V 62,63
OSTROVSKAYA I K 48
OSTROVSKIY YU M 72
OSYKIN V A 20
OTLIVANCHIK M A 55
OTLIVANCHIK YE A 33,55,74

KOZLOV G V 39
KOZLOV N P 53
KOZLOVA N V 74
KOZUBOVSKIY V R 73
KOZYREV V K 40
KRASILOV YU I 26
KRASNOV M M 36
KRASNOV O A 46
KRASNOV S I 14,16,85
KRASNOV V F 66
KRAVCHENKO A F 69
KRAVCHENKO A YE 71
KRAVTSOV YU A 84
KRAYEVSKI G 76
KRAYSLER O D 73
KREMENCHUGSKIY L S 55,56
KRENERT YU 3
KRIALASHVILI I V 4
KRIKUNOVA E M 46
KRIVONOS A I 63
KRIVOSHCHEKOV G V 2,29
KROEDEL G 38
KROPOTKIN M A 46
KRUSZEWSKI J 63
KRUTYAKOV YU A 23
KRUZHILIN YU I 3
KRYLOV K I 6,63
KRYUCHKOV S I 15,32
KRYUCHKOVA O I 75
KUBAREV A V 57
KUBECEK V 28
KUBECHEK V 28
KUBYSHKIN V V 57
KUCHERYUK V I 86
KUCHINSKIY V I 4,5
KUDRYAVTSEV A N 42
KUDRYAVTSEV N N 11,15,32
KUDRYAVTSEV YU A 54
KUEMMEL G 20
KUKHARCHIK P D 49,51
KUKONIN A G 49
KUKUDZHANOV A R 57
KUKUSHKIN V G 6
KULAGINA S N 22
KULCZUGA K 20
KULIKOV A O 10
KULIKOV V D 63
KULISH N R 69
KUND G G 76
KUPRIYANOV N L 10
KUPRIYANOVA YE B 60
KURASHOV V N 42
KURATEV I I 2
KURILO N I 51
KURICHKIN A P 84
KURICHKIN V L 53
KURZENKOV V N 56
KUSENKO A I 11
KUSHNIR V R 2
KUSHTIN I F 84
KUTAKHOV V P 39,41
KUTEYEV B V 19
KUTSENKO A V 34,87
KUVSHINSKIY N G 49
KUZ'MIN A I 65
KUZ'MIN R N 33
KUZ'MIN V V 71
KUZ'MINOV YU S 86
KUZNETSOV A A 56,57
KUZNETSOV A I 48,55
KUZNETSOV S G 53
KUZNETSOV V A 81
KUZNETSOVA YE A 63
KUZNETSOVA YE M 22
KUZYAKOV YU YA 21,53

LABUDA S A 55
LAGUCHEV A S 46
LAKHNO P R 3
LAKIN YE YE 1
LAPSHENKOVA T V 72
LAPSKER YA YE 17
LAPTEV V D 26,34
LAPTEV V V 1,2
LARIKOV A V 56
LARKIN A I 49
LATENKO YE I 38
LATYSHEV S V 77
LAVROVSKIY L A 2
LAZAREV G A 9
LAZUTKA A S 5
LEBEDEV F V 58
LEBEDEV V B 62
LEBEDEV V D 58
LEBEDEV V V 82
LEBEDEVA YE L 70
LEBO I G 82
LEDNEVA G P 35
LEGEZA V P 57
LEKHTSIYER YE N 63
LEMANOV V V 68
LEONOV A G 10
LEONOV YE I 71
LEONTOVICH A M 3,80
LERNER P B 52
LESELIDZE D V 50
LESHCHEV A A 29
LETOKHOV V S 36,54
LEUS N B 45
LEUS V I 45
LEVCHENKO YE B 78
LEVI A M 57
LEVIN V A 8
LEVIT A L 25
LEZHEN A S 44
LIBENSON M N 67
LIBERA L 51
LIFERENKO V D 40
LIKHNIKEVICH YE N 37
LIMPOUKH I 82
LINNIK L A 36
LIPSKAYA O A 44
LISITSYN V M 63
LITVINCHUK A P 75
LITVINENKO A YA 13
LIUKONEN R A 82
LIVSHITS M G 71
LIVSHITS V YA 40
LOBACHEV V A 3
LOBKO V V 36
LOBOV L I 57
LOGINOV A V 61
LOGUNOV O A 6
LOKHOVA N V 51
LOKTYUSHIN A A 1
LOMONOSOV V V 70
LOMOVA V N 74
LOPANTSEVA G B 11
LOPATKINA YE I 38
LOPATKO V N 71
LORINCZ E 61
LOSITSKAYA-YEZHOVA L G 71
LOSOVSKIY V A 54
LOSSOVSKIY V A 25
LOTKOVA E N 12
LUBASHEVSKIY I A 6
LUCAK O 63
LUDWICZAK M 1
LUIZOVA L A 59
LUKASH K I 67
LUKIN I A 40
LUKIN K A 33
LUK'YANCHUK B S 68
LUK'YANOV G A 81
LUNTER S G 6
LUTOSHKIN V I 54
LYABIN N A 14
LYALETSKAYA O A 52
LYASHENKO V I 60,62
LYSENKO A I 65
LYSENKOVA L N 52
LYTKIN A P 77
LYUBIMOV V V 19
LYUBOV B YA 82

MACHULKA G A 20
MAGOMEDOV A A 61
MAK A A 6,55
MAKARETSKIY YE A 56
MAKAROV A A 54
MAKAROV A I 29
MAKAROV N V 19
MAKEYEV V S 15
MAKIN V S 67
MAKIYENKO E V 44
MAKOGON M M 42
MAKOVETSKIY A A 3
MAKSIMOV A YU 68
MAKSIMOV L V 31
MAKSJAN K 9
MAKUKHA V K 6
MAKUSHKIN YU S 44
MALASHIN M S 86
MALASHONOK V A 72
MALEVANNYY V S 58
MALIKOV M M 13
MALININ A N 17
MALINOVSKIY V K 50
MALKOV A N 3
MALOMUZH N P 71
MALOV A V 75
MALOV S N 51
MALOV YU A 70
MALYSH M M 10
MALYSH N I 69
MALYSHEV B N 36
MALYUTA D D 10,17
MALYUTIN A A 1,34,48,55,56
MAMAYEV YU A 63
MAMEDLI L D 36
MAMEDOV A 69
MAMEDOV S B 54
MAMONOV V K 44
MAMYRIN B A 53
MAMZER A F 81
MANAKOV S V 32
MANDEL' V YE 22
MANISHIN V G 22
MANUIL'SKIY A D 66
MANYKIN E A 42
MARAKHONOV V I 24
MARAZOV O R 13
MARCHEVSKIY F N 28
MARCINIAK H 40
MARESH R M 56
MARGOLIN L YA 73

IVASHCHENKO M I 42
IVCHENKO YE L 73
IVONIN A V 59
IYEVLEVA L D 75
IZMAYLOV I A 8

JANKIEWICZ Z 50
JEDLINSKI K 63
JELINKOVA H 34
JUNGHANNS F 39

KAARLI R K 51,54
KABANOV M V 84
KABELKA V 28
KACHURIN O R 58
KACZMAREK F 1
KADYROVA D R 49
KAGANOVICH E B 48
KAKICHASHVILI SH D 50,69
KALECHITS V I 42
KALENDAREV R I 52
KALENDO G S 36
KALIKOV V N 73
KALINUSHKIN V P 66
KALITIN S P 1,2
KALUGIN M M 39
KAMINSKIY R P 86
KAMINSKIY A A 33
KAMOLOVA T I 80
KAMRUKOV A S 53
KANAYEV A V 17
KANAYEV I F 50
KANDIDO V P 46
KANEVSKIY V A 62
KANKA J 39
KAPERKO V P 72
KAPLYANSKIY A A 30,71
KARACHEVTSEV G V 18
KARAGODOVA T YA 75
KARAPETYAN G O 31
KARASEV A V 13
KARASEV B G 19
KARASEV V B 6
KARAYAN A S 18,67
KARFIDOV D M 60
KARGE H 78
KARLSEN G G 57
KARPACHEV V N 58
KARPATI T 62
KARPENKO S G 28
KARPOV O V 21
KARPOV S YU 5
KARPUKHIN S N 47
KARPUKHIN V T 14
KARPUSHKO F V 1,26
KARU T Y 36
KASATKIN V B 65
KASHCHEY V A 60
KASHINTSEVA L T 36
KASHNIKOV G N 53
KASHUKEYEVA M D 60
KATKOVSKIY O B 3
KAUL' B V 46
KAVILADZE M SH 75
KAZAKEVICH V S 77
KAZANSKIY P G 23
KAZANTSEV S A 73
KAZARYAN E M 27
KEL'MAN V A 13
KERIMOV O M 10,12
KHAKHAYEV A D 59
KHALFIN V B 5
KHALIMANOVICH D M 68
KHALTGURIN V I 47
KHAMANN K 51
KHAPALYUK A P 52
KHAPAYEVA L I 26
KHARITONOV V V 22
KHARITONOV YU YA 73
KHASILEV V YA 8
KHATIN G A 39
KHATSEVICH T N 62
KHATYREV N P 56
KHAYRETDINOV K A 3
KHAZOVA M V 49
KHEYNILUOMA R E 21
KHIMINETS V V 24,75
KHIZHNYAK A I 3,32,51
KHIZHNYAK S M 15
KHODZHABAGYAN G G 33
KHOL'TS L 53
KHOMKIN A L 78
KHOPOV V V 64
KHOREV A A 24
KHORUNZHIY I A 45
KHOTNYANSKAYA YE B 38
KHOTYAINTSEV S N 59
KHRISTOFOROV O B 16
KHRISTOV V 62
KHROMYLEV V N 15
KHRYKIN V T 40
KHUKHUNASHVILI T R 53
KHULUGUROV V M 2
KHURKHULU YU S 56
KHYUPPENEN V P 1
KIBIREV S F 52
KIEBURG H 68,76
KIL'PIO A V 34
KIREYEV I V 85
KIRICHENKO N A 68
KIRKIN A N 80
KIRYUKHIN YU B 16
KISELEV D F 58
KISELEV O M 14,16,85
KISELEV V M 18
KISELEVSKIY A L 17
KISLOV V I 81
KITAYEV YU V 39
KIVACH L N 72
KLEMENTOV A D 16,17
KLIMA M 30
KLIMENKO I S 50,51
KLIMENKO V I 36
KLIMOV A S 59
KLIMOVSKIY I I 13,14
KLOCHKOV V P 73
KLYUCHAREV A N 8,85
KLYUKIN L M 69
KLYUSHIN A B 62
KNYAZEV B A 66
KNYAZEVA N A 73
KNYAZ'KOV A V 49
KNYUPFER A P 56
KOCHELAP V A 8
KOCHETKOV A A 4
KOCHETOV I V 14,17
KOLDASHOV G A 80
KOLESNIKOV E P 28
KOLEV N T 61
KOLOBRODOV V G 74
KOLOMIYETS A I 36
KOLOSOVSKIY YE A 39
KOLPAKOVA I V 20
KOLYSHKIN V I 5
KOMAR V G 51,85
KOMAROV F F 79
KOMAROV G L 57
KOMISSAROVA I I 62
KOMITOV L K 39
KOMPANETS I N 59
KONDRASHOV V N 44
KONEV YU B 14
KONONOV I G 10
KONONOV YU G 71
KONOVALOV V P 69
KONSASHBAYEVA R S 56
KONSTANTINOV V N 34
KONYASHENKO A V 53
KOPROVSKI YA 76
KOPYLOV S M 27
KOPYSOV I A 83
KOPYTIN YU D 43
KORDA I M 71
KORESHKOVA T B 81
KORKISHKO YU N 38
KORN G 21
KORNILOV S T 11,12
KORNIYENKO N YE 29
KOROBKIN V V 34
KOROLEV I YA 46
KOROLEV YE A 82
KOROL'KOVA N V 7
KOROTENKO A I 77
KOROTICH A G 39
KOROTUNOV V M 64
KOROVIN V YA 43
KORSUNSKAYA N YE 52
KORZHENEVICH I M 62
KORZININ YU L 48
KOSHELEV S B 22
KOSICHKIN YU V 67
KOS'MINA M A 62
KOSOBURD T P 46
KOSOROTOV V F 56
KOSTENICH YU V 2
KOSTIN B S 44
KOSTIN V A 56
KOSTSOV E G 23,67
KOSTYSHIN M T 69
KOSTYUKEVICH YE A 62
KOTEL'NIKOV V YE 59
KOTENKO L P 80
KOTLYAROV V P 77
KOTOV G A 70
KOTYUK A F 56,57
KOVACHEV M I 48
KOVACS J 77
KOVAL'CHUK YU V 63
KOVALENKO S A 34
KOVALENKO V F 4,73
KOVALENKO V S 77
KOVALEV D V 1
KOVALEV M N 59
KOVALEV V F 20
KOVALEV V I 48
KOVSH I B 77
KOWALSKI A 34
KOZACHOK A G 61
KOZHEVNIKOV A V 33
KOZINTSEV V I 45
KOZIONOV A L 36
KOZLOV B N 53
KOZLOV D N 74
KOZLOV G I 81

FAYZULLAYEV SH F 71
FAYZULLOV F S 48
FEDONENKO A I 70
FEDOROV A A 26
FEDOROV A B 47
FEDOROV S N 36
FEDOROV V B 48,80
FEDOROV V F 13
FEDOROV YU K 6
FEDOROVA YE I 23
FEDOSEYEV V G 38
FEDOSIMOV A I 80
FEDOSOV A A 15
FEDOTOV A A 65
FEDOTOV A B 57
FEDOTOV M A 81
FEDOTOV S I 82,83
FEDULEYEV B V 51
FEL'DMAN G G 62
FEL'DMAN N B 23
FENIN M A 20
FEOFILOV S P 71
FESENKO L D 13
FILIPPOV A N 48,55,56
FILIPPOV M V 55
FILIPPOV S S 78
FILIPPOV V N 62
FIRSOV I G 40
FIRSOV K N 10
FISCHER H 78
FISCHER R 8
FISHER R 8
FISUN O I 17
FOFANOV YA A 9
FOKIN YU I 62
FOMIN N A 15
FOMIN V K 80
FOMIN V M 18
FON'KIN V A 64
FORBRIG B 38
FORTOV V YE 83
FOTIADI A E 8
FRADKIN E YE 62
FRIZEL' V V 29
FROEHLICH H 78
FROLOV K S 19
FROLOV M P 17
FROLOV V A 20
FROLOV V V 62,82
FROMM V A 58
FROMZEL' V A 6,19
FRONTS K 5
FUCHKO V YU 13
FURMAN SH A 22

GACHKO G A 72
GAD'MASHI Z P 22
GADIYAK G V 19
GALANOV YE K 61
GALEYEV R S 15,85
GALEYEVA A I 7
GALKIN A F 13
GALKIN A L 34
GALKIN S G 61
GAL'PERN A D 50,58
GALUSHKIN M G 26,47
GALYAUTDINOV M F 79
GAMAL K 28
GANICHEV S D 68
GAN'SHIN V A 38
GARAGATAYA A M 65
GARAYEV R A 26,72
GARBUZOV D Z 5
GASTEV S V 73
GATSIKHA S V 60
GAUBAS E P 68
GAVRILENKO V P 81
GAVRILOV D N 9
GAVRILOV N I 22
GAVRILOV V M 43
GAVRILOV V N 24
GAVRILOVA L I 20
GAYDUK P I 79
GAYNER A V 28
GAYSIN V A 75
GAZIY I I 67
GELASHVILI G V 79
GEORGIYEVA V B 36
GEORGOBIANI A N 73
GERASIMENKO M V 81
GERASIMOV B P 43
GERASIMOV V A 55
GERASIMOV V G 13
GETMANCHUK YU P 50
GIBIN I S 52
GINZBURG V M 50
GLADKIY V P 38
GLADUSH G G 81
GLAZOV A I 56
GLOTOV YE P 10,12
GLOVA A F 58
GLUSHKOV YE A 73
GNATOVSKIY A V 59
GODENKO L P 70
GODLEVSKIY A P 43
GOETZ G 78
GOFFMAN V G 58
GOLDOVSKIY V L 73
GOLIKOV A P 61
GOLINSKAYA T A 72
GOLOVANIVSKIY K S 12
GOLOVIN A D 3
GOLUB S L 43
GOLUBEV YE V 55
GOLUBEV YU M 34,42
GONCHAROV A F 73
GONCHAROV A N 68
GONCHAROV L A 66
GONCHAROVA O V 26
GORBACHEV V V 75
GORBAN' I S 29
GORBOVSKOY V YE 32
GORBUNOV L M 68
GORCHARUK I M 28
GORDOV YE P 34
GORELENOK A T 5
GORELIK V S 28,29
GORICHUK O L 83
GORIN YE A 68
GORNYY M B 39
GORODNICHENKO O K 73
GORSHKOV B G 41
GORSHKOV G F 21
GORSHKOV V I 66
GORYACHEV S B 15,56
GORYACHUK O L 83
GOYKHMAN V KH 20
GRAEFE D 68
GREBENNIKOV V A 78
GRECHINSKIY D A 61
GREGORA I 76
GRENISHIN A S 18
GRIDIN V A 27
GRIGOROV D Z 61
GRIGOROV V A 32
GRIGOR'YANTS V V 29,39
GRINEV A YU 61
GRISHIN L V 81
GROMOV G G 68
GRUDIN O M 39
GRUZINA G A 33
GRUZINSKIY V V 34
GRYAZHEVICH V P 34
GUBANOV V A 29
GUBAREV A V 11
GUDAYEV O A 48
GUDKOV V I 11
GUDYMENKO L F 73
GUETHER R 47
GULE YE G 73
GULIDOV S S 2
GULYAYEV YU V 85
GUMBERIDZE G G 79
GUNDOROVA R A 58
GUR'YANOV A A 58
GURARI M L 61
GURASHVILI V A 14
GURINOVICH A F 60
GURINOVICH V F 60
GURKO A F 54
GUSEV O B 24
GUSEV V A 48
GUSEVA YE V 73
GUSHCHIN N M 58
GUSHCHO YU P 21,24
GUTKOWSKI M 63
GUTOROV M M 85
GUZHOV V I 61
GYRDEV L L 45

HAEHNERT M 74
HALADA P 63
HAMAL K 4,28,34
HARTMANN J 39
HEVESI I 77
HORA J 39

IGNATOVICH E I 62
IGNAT'YEV M B 78,83
IGOSHIN V I 18
IL'ICHEV N N 1
IL'IN V P 85
IL'IN YU B 34
IL'INSKIY YU A 47
INOGAMOV N A 76
INYAKOV V G 62
IPATOV A L 65
IRMER G 71
ISAKOV A I 83
ISAKOV I M 10
ISAYEV A A 62
ISAYEV M P 2
ISYANOVA YE D 6
ITIGIN A M 85
ITSKHOKI I YA 6
IVANENKO M M 56
IVANISHKO YU A 36
IVANOV A I 36
IVANOV A K 43
IVANOV G A 23
IVANOV I TS 24,59,62
IVANOV M A 53
IVANOV S S 13
IVANOV V N 38,43
IVANOVA S V 28
IVANOVA YE A 72

BRITS G P 59
BROCKNER W 72
BRODIN I S 59
BRODIN M S 5,72
BRONNIKOV V I 55
BRZEZINKA K W 74
BUCHNEV V M 16
BUDAGYAN I F 23
BUDAY A G 60
BUDNIK A P 43
BUDNIK A P 84
BUDROVIN V F 23
BUDZYAK A 60
BUES W 72
BUFETOV I A 80
BUGAYEV V A 11
BUKHTOYAROVA N I 58
BUKOVSKIY B L 55
BULAKH B M 69
BULANIN V V 60
BULATOV YE D 33,55
BULDAKOV V M 43
BUNKIN A F 72
BUNKIN F V 68,80
BURAKOV V S 1,16,72,80
BURITSKIY K S 23
BURYKIN N M 49
BUTAYEV YU B 19
BYCHENKOV V YU 80
BYCHKOV S I 43
BYCHKOV YU I 11
BYKOV V P 36
BYKOVSKIY A YU 59
BYKOVSKIY YU A 49,79,80
BYSTRITSKIY V M 19

CANDEA R M 5
CHABAN A A 30
CHABAN N G 74
CHALEY A V 47,50
CHALYY V P 5
CHAMOROVSKIY YU K 37
CHAPLIK A V 28
CHAPLYGIN V I 53
CHAUSHANSKIY S A 83
CHAYANOV B A 26
CHAYKA M P 63
CHEBOTAREV S I 82
CHEBOTAYEV V P 54,68,82
CHEBURKIN N V 10,12 47
CHEKALINSKAYA YU I 35
CHEKHOVSKIY S A 59
CHEKMAREV A M 60
CHEPUR D V 75
CHEPURNOY V A 2
CHEREDNICHENKO O B 6
CHEREPENIN N D 14,16,85
CHEREPNEV S M 74
CHERKASOV A S 35
CHERKASOV YU A 50
CHERNOUSOV A F 36
CHERNOV A A 59
CHERNYAK N YU 21
CHERNYAK YE YA 14,54
CHERNYAVSKIY A D 60
CHERNYAVSKIY A F 38
CHERNYKH V A 23
CHERNYSHEV A I 1
CHERNYSHEV S M 14
CHERVENKOV V D 33
CHERVOSH E 76
CHERVYAKOV A V 58
CHESKIS S G 54
CHETVERUSHKIN B N 66,78
CHICHKAN' L A 60
CHIKOVANI R I 4
CHILINGARYAN YU S 18,67
CHIRIKOV S N 11,12
CHIRKIN A S 26,38,65
CHISTOV YE K 18
CHIZH I G 38
CHLODZINSKI J 81
CHOKOVA I B 36
CHUBAROV V V 44,72
CHUDAKOV V S 69
CHUDNOVSKIY F A 58
CHUDNOVSKIY V S 43
CHUMAK S M 51
CHURAKOV V V 11,56
CHURAYEV A L 49
CHURBANOV M F 37
CHURBANOVA N G 66
CHURSIN A D 14
CHUZHKO R K 20
CHUZO A N 80
CHVOSTOVA D 76

DABAGYAN A A 68
DABROWSKI M 9
DADARLAT D 5
DADIVANYAN A K 7
DANCHUK V D 75
DANIL'CHENKO V P 60
DANILENKO A A 55
DANILEVICH V V 38
DANILOV A YE 83
DANILOV V A 21
DANILOVA V I 7
DANILYCHEV V A 10,12,79
DANISHEVSKIY A M 68
DAN'SHCHIKOV YE V 58,76
DASHUK P N 18
DAVARASHVILI O I 4
DE LA CRUZ GUILLERMO 47
DE LYA KRUZ GIYERMO 47
DEDUSHENKO K B 38
DEMCHENKO P I 58
DEMCHUK M I 24
DEMENKO S I 48
DEMENT'YEV V G 17
DEMICHEV G I 20
DEMIRKHANYAN G G 2
DEM'YANOV A V 14,17
DEM'YANTSEVA S D 9
DENISOV L K 7
DENISOV V N 75
DENISOVA Z L 73
DENISYUK YU N 50
DENUS S 81
DEPUYEVA N KH 45
DERKACH N V 55
DERYUGIN I A 30
DERYUGINA A I 42
DERZHAVIN S I 10
DERZHIYEV V I 16,80
DETINENKO V A 48
DEVYATKOV N D 36
DEVYATYKH G G 37
DIANOV YE M 37
DILUNG I I 69
DINESCU M 77
DIREKTOR L B 13
DIVAKOV A K 60
DMITRENKO K A 5
DMITRIYEV B L 11
DMITRIYEV K I 11
DMITRIYEV V G 27
DMITRYUK A V 31
DOBROLYUBOVA A G 59
DOBROTVORSKIY S S 77
DOHNALIK T 70
DOLGOV-SAVEL'YEV G G 81
DOLZHIKOV S V 67
DOMBARKAS A A 30
DOMRACHEV S A 36
DONIN V I 19
DOROSH V S 38
DOROSHENKO V M 15
DOROZHKIN L M 26
DOVBESHKO G I 76
DOVGA N D 60
DRACHUK L N 12
DRENCKHAN J 60
DRESVYANNIKOV V G 17
DROGAYTSEV YE A 1
DROZHOV YU P 26
DRSKA L 81
DRUZHERUCHENKO A F 54
DRUZHININ A I 61
DRYAPKO N K 4
DRZEWIECKA M A 30
DUBITSKIY A L 22
DUBNISHCHEV YU N 61
DUBOV V S 17
DUBOVIK M F 1
DUBOVSKIY P YE 12
DUDIN YU YU 17
DUGAR-ZHABON V D 12
DUKHOVNYY A M 49
DUL'KIN VSEV M 45
DUL'KIN VYACH M 45
DUMITRAS D C 19
DURASOV V M 50
DUTU D C A 19
DVORETSKIY M A 47
DVORNIKOV G D 61
DVURECHENSKIY S V 7
D'YACHENKO N G 22
D'YACHKOVA L M 59
DYATLOV V G 88
DYGDALA R 31
DYKHNE A M 30,68
DYMSHAKOV V A 58
DYUBKO S F 13
DZHINGOV KH G 35

EBERLEIN D 24
EDEL'MAN S A 73
EFENDIYEV T SH 2,32
EKSNEROVA YA 59,62
ELENKRIG B B 64
ENGARD F 61
ENGELAGE D 37
EWERS R 20
EYDUS YA A 52

FABELINSKIY V I 53
FABIAN L 38
FADEYEV V V 44,72
FADIYENKO L P 60
FALLUKH SH SH 58
FALOMKIN I V 60,62
FATEYEV N V 53
FATTAKHOV A M 38
FAYENOV A YA 80
FAYZRAKHMANOV R T 15

VI. AUTHOR INDEX

ABDULLOYEV N S 71
ABRAMOV A G 12
ABRAMOV O I 57
ABRAMSKI K M 55
ACHASOV O V 55
ADAMSON P V 38
ADZHEMYAN L TS 57
AFANAS'YEV YU V 79
AGASHKOV A V 2
AGAYEV V V 5
AKHMED'YANOVA F A 14
AKHMEDZHANOVA YE V 58
AKHUNOV N 10
AKIMOV A I 7
AKIMOV A V 30
AKIMOV YU A 23
AKOPYAN R S 25
AKSENOV YE T 30
ALEKHNOVICH V I 57
ALEKSAKHIN I S 67
ALEKSANDROV A P 57
ALEKSANDROV A V 27
ALEKSANDROV I V 37
ALEKSANDROV K S 84
ALEKSANDROV L N 79
ALEKSANDROV YU M 57
ALEKSEYEV A V 84
ALEKSEYEV I A 19
ALEKSEYEV V I 48
ALEKSEYEV-POPOV A V 49
ALEYNIKOV V S 36
ALFEROV G N 7, 19
ALIMPIYEV S S 53
ALMAYEV R KH 42, 43
AL'PEROVICH L I 55
AL'TSHULER G B 6
AMBRAZYAVICHYUS G 71
ANAN'IN O B 79
ANAN'YEV YU A 33
ANDREYANOV YU P 23
ANDREYCHUK A YE 26
ANDREYEV N F 47
ANDREYEV R V 2
ANDREYEV S P 71
ANDREYEV V A 34
ANDREYEV V M 4
ANDREYEV V N 58
ANDREYEV V V 55
ANDREYEVA O V 49
ANGELOV A K 23
ANGELOV M A 13
ANIKEYEV I YU 47
ANIKICHEV S G 33
ANISIMOV V A 31
ANTIPENKO B M 2
ANTONOV V M 79
ANTROPOV YE T 14
ANTSIBOR V YA 58
ANTSYGIN V D 23, 67
ANTYUKHOV V V 58
ANUFRIK S S 6
ANUR'YEV YE A 41
APANASEVICH P A 28
APOLLONOV V V 10
APOSTOL D 9
APOSTOL I 77
APRESYAN L A 84
ARAKELYAN S M 18, 67
ARANCHUK L YE 12
ARASLANOV SH F 14
ARKHIPKIN V G 84
ARSEN'YEV P A 33
ARSLANBEKOV G U 16
ARTAMONOV A V 10
ARTEMENKO S B 58
ASAYENOK N A 2
ASHKINADZE D A 45
ASINOVSKIY E I 12
ASKAR'YAN G A 76
ASKHAVOV A M 64
ASTASHKIN S A 33
ASTVATSATUROV A V 58
ATAKHODZHAYEV A K 71
ATANASOV P A 8
ATUTOV S N 9
AUBAKIROV R G 19
AVAKYANTS L P 58
AVDEYEVA V I 24
AVERBAKH V S 29
AVERIN A P 10, 12
AVETISOV E S 58
AVETISYAN S K 27
AYVAZYAN YU M 34
AZAMATOV E T 49

BAARS G 37, 38
BABKINA T V 37
BABONAS G 71
BACHMANN P 9
BAGDASAROVA T A 37
BAGROV A M 37
BAKANOV D G 10
BAKANOV L V 58
BAKEYEV A A 77
BAKHRAKH L D 84
BAKHRAKH V L 75
BAKHTADZE A G 53
BAKIN D V 23
BAKLANOVA V N 30
BAKUT P A 47
BANAKH V A 43
BARANOV G A 19
BARANOV P N 59
BARANOV V YU 10, 16, 17
BARAULYA V I 6
BARKHUDAROV E M 79
BARLEA M 5
BARTKE YE 59
BARYSHEVSKIY V G 26, 28, 71
BASHKIN A S 17
BASIYEV T T 1
BASOV N G 10, 12, 79
BASUN S A 71
BASYAYEVA L I 25
BATOV I P 35
BAYBORODIN YU V 3
BAYKALOV P I 37
BAYRAMOV B KH 71
BAYYER V N 33
BAZDENKOV S V 59
BAZHENOV M YU 49
BAZHENOV V V 67
BAZHENOV V YU 49
BAZYL' O K 7
BEDRIN A G 67
BEGISHVILI D G 58
BEKKER A M 58
BEKKIYEV A YU 72
BEL'DYUGIN I M 26
BELEN'KIY M S 43, 84
BELENOV E M 59
BELKIN N D 47
BEL'KOV YE P 18
BELOKON' M V 71
BELOKONEVA YE L 33
BELOUSOV M V 72
BELOVINTSEV K A 33
BELYACHITS A CH 49
BELYAKOV YU M 14
BELYAYEV V P 36
BELYKH A D 14
BENIMETSKAYA L Z 36
BENTSE D 60
BEREZHINSKIY L I 30
BEREZINSKAYA A M 49
BERNDT K 72
BERRU M K 68
BERTEL' I M 11
BESPALOV V I 22, 47
BESSONOVA S V 59
BETEROV I M 53
BEZUGLOV N N 85
BIBINOV N K 16
BIELSKI A 31
BINDER N G 59
BIRKENSTOCK N 37
BIRMONTAS A 28
BITYURIN N M 78
BLANARU C 9
BLASZCZAK Z 1
BLAZHENKOV V V 80
BLINOV S I 76
BLOKH M A 80
BOBAK V 50
BOBAK W 50
BOBKOWSKI R 31
BOBRIK V I 55
BOBROV B D 18
BOBROVA N P 60
BOBYR' A V 29
BODUNOV YE N 49
BOGACHEV G G 67
BOGATOV A P 3, 32
BOGATYREV A YE 13
BOGDANOV V L 72
BOGOLYUBSKIY S L 12
BOGOMOLOV N F 59
BOGORODSKIY M M 53
BOKHONOV A F 16
BOL'SHAKOV A A 72
BOL'SHUNOV A V 36, 37
BONCH-BRUYEVICH A M 67
BONDAR' A M 54
BONDAR' I I 53
BONDAR' V G 1
BONDAREV A D 71
BONDAREV L A 23
BORISEVICH A N 68
BORISOV B N 3
BORISOV V M 16
BORISOV V T 13
BORISOV YU B 86
BORISOVA Z U 54
BORODIN V I 59
BORODKIN A A 59
BORODULINA O S 3
BOROVOY A G 59
BORSHCHIYEVSKIY V M 24
BORTSOV A A 34
BOYKO V A 80
BOYKOV A A 59
BRAGINSKAYA A G 4
BRAUDE V B 37, 41
BREITLAUCH A 68
BREKHOV YE I 36
BREYEV V V 7

VNIIYaGG
  VNII yadernoy geofiziki i geokhimii
  All-Union Scientific Research Institute of Nuclear Geophysics and Geochemistry, Moscow
VNITsISPiV
  VNI tsentr po izucheniyu svoystv poverkhnosti i vakuuma
  All-Union Scientific Research Center for Studying the Properties of Surfaces and Vacuums, Moscow
VTsSOAN
  Vychislitel'nyy tsentr SOAN
  Computer Center, Siberian Branch Academy of Sciences USSR
VVIAZhuk
  Voyenno-vozdushnaya inzhenernaya akademiya
  Air Force Engineering Academy, Moscow
VZPI
  Vsesoyunyy zaochnyy politekhnicheskiy institut
  All-Union Correspondence Polytechnic Institute, Moscow

UDN
Universitet druzhby narodov im Lumumby
University of friendship Among Peoples imeni Lumumba, Moscow

UzhGU
Uzhgorodskiy gos universitet
Uzhgorod State University

UZPI
Ukrainskiy zaochnyy politekhnicheskiy institut
Ukrainian Correspondence Polytechnic Institute, Khar'kov

VilGU
Vil'nyusskiy gos universitet
Vilnius State University

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

VIOGEM
VNI i proyektno-konstruktroskiy institut po osusheniyu mestorozhdeniy poleznykh iskopayemykh, spetsial'nym gornym rabotam, rudnichnoy geologii i marksheyderskomu delu
All-Union Scientific Research, Planning and Design Institute for the Reclamation of Recoverable Mineral Deposits, Special Mining Operations, Mining Geology and Mine Surveying, Belgorod

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

VNIIETO
VNII elektrotermicheskogo oborudovaniya
All-Union Scientific Research Institute of Electrothermal Equipment

VNIIGBol
VNII glaznykh bolezney
All-Union Scientific Research Institute of Eye Diseases, Moscow

VNIIMono
VNII monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv
All-Union Scientific Research Institute of Single Crystals, Scintillation Materials and Extra Pure Chemical Substances, Khar'kov

VNIIOFI
VNII optiko-fizicheskikh izmereniy
All-Union Scientific Research Institute of Optophysical Measurements, Moscow

ONIIGBTT
Odesskiy NII glaznykh bolezney i tkanevoy terapii
Odessa Scientific Research Institute of Eye Diseases and Tissue Therapy

PetGU
Petrozavodskiy gos universitet
Petrozavodsk State University

RMEDI
Rostovskiy meditsinskiy institut
Rostov Medical Institute

RTsMSGruz
Respublikanskiy tsentr mass-spektrometrii GruzSSR
Republic Center for Mass Spectrometry of the Georgian SSR, Tbilisi

SFTI
Sibirskiy fiziko-tekhnicheskiy institut im Kuznetsova
Siberian Physicotechnical Institute imeni Kuznetsov, Tomsk

SKBOptika
Spetsial'noye konstruktorskoye byuro nauchnogo priborostroyeniya "Optika" SOAN
"Optika" Special Design Bureau for Scientific Instrument Manufacture, Siberian Branch Academy of Sciences USSR

TaGU
Tadzhikskiy gos universitet
Tadzhik State University

TbGU
Tbilisskiy gos universitet
Tbilisi State University

TGU
Tomskiy gos universitet
Tomsk State University

ToPI
Tomskiy politekhnicheskiy institut
Tomsk Polytechnic Institute

TsNIIChermet
Tsentral'nyy NII chernoy metallurgii im Bardina
Central Scientific Research Institute of Ferrous Metallurgy imeni Bardin, Moscow

TsNIIMF
Tsentral'nyy NII morskogo flota
Central Scientific Research Institute of the Maritime Fleet, Leningrad

TulPI
Tul'skiy politekhnicheskiy institut
Tula Polytechnic Institute

TyumII
Tyumenskiy industrial'nyy institut
Tyumen Industrial Institut

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

NIIEA
NII elektrofizicheskoy apparatury im Yefremova
Scientific Research Institute of Electrophysical Equipment imeni Yefremov, Leningrad

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

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

NIIMCh
NII morfologii cheloveka AMN SSSR
Scientific Research Institute of Human Morphology, Academy of Medical Sciences USSR

NIIPFP
NII prikladnykh fizicheskikh problem pri Belorusskom gos universitete
Scientific Research Institute of Applied Physics Problems at Belorussian State University

NIIREV
NII revmatizma AMN SSSR
Scientific Research Institute of Rheumatism, Academy of Medical Sciences USSR

NIIS
Gosudarstvennyy NII stekla
State Scientific Research Institute of Glass, Moscow

NIISI
NII stabil'nykh izotopov
Scientific Research Institute of Stable Isotopes

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

NIKFI
NI kinofotoinstitut
Scientific Research Institute of Motion Pictures and Photography, Moscow

OGU
Odesskiy gos universitet
Odessa State University

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

MFTI
  Moskovskiy fiziko-tekhnicheskiy institut
  Moscow Physicotechnical Institute
MGI
  Morskoy gidrofizicheskiy institut AN UkrSSR
  Marine Hydrophysical Institute, Academy of Sciences Ukrainian SSR
MGMIVt
  Vtoroy Moskovskiy meditsinskiy institut im Pirogova
  Second Moscow Medical Institute imeni Pirogov
MGU
  Moskovskiy gos universitet
  Moscow State University
MIEM
  Moskovskiy institut elektronnogo mashinostroyeniya
  Moscow Institute of Electronic Machinery
MIET
  Moskovskiy institut elektronnoy tekhniki
  Moscow Institute of Electronic Engineering
MIFI
  Moskovskiy inzhenerno-fizicheskiy institut
  Moscow Engineering Physics Institute
MIREA
  Moskovskiy institut radiotekhniki, elektroniki i avtomatiki
  Moscow Institute of Radio Engineering, Electronics and Automation
MITKhT
  Moskovskiy institut tonkoy khimicheskoy tekhnologii im Lomonosova
  Moscow Institute of Fine Chemical Technology imeni Lomonosov
MKhTI
  Moskovskiy khimiko-tekhnicheskiy institut im Mendeleyeva
  Moscow Institute of Chemical Technology imeni Mendeleyev
MNII
  Moskovskiy NII glaznykh bolezney im Gel'mgol'tsa
  Moscow Scientific Research Institute of Eye Diseases imeni Gel'mgol'ts
MNIIG
  Moskovskiy NII gigiyeny im Erismana
  Moscow Scientific Research Institute of Hygiene imeni Erisman
MNILEKKh
  Moskovskaya NI laboratoriya eksperimental'noy i klinicheskoy khirurgii glaza s klinikoy
  Moscow Scientific Research Laboratory of Experimental and Clinical Eye Surgery with a Clinic
MVTU
  Moskovskoye vyssheye tekhnicheskoye uchilishche im Baumana
  Moscow Higher Technical College imeni Bauman

TYMCHIK G S 74
TYMPER S I 12
TYURIN A V 22
TYURIN D A 75
TYURIN YU M 65
TYUTIKOVA I N 58
TYUTYUNNIK V G 56,57

UFIMTSEV V B 68
UGLOV A A 78,83
ULANOVSKIY M V 56
UL'MAN KH 66
UL'MAN P 66
UMAROV K U 32
UMOV A P 60
UMYSKOV A F 1
URAZOV V SH 59
URSAKI V V 73
USATYY A N 70
USHENIN YU V 69
USKOV A V 59
USPENSKAYA M YE 73
USTINOV N D 10,12,47
USTINOV S A 39
UVAROV A D 43
UZHINOV B M 7

VAGIN N I 59
VAKSMAN M A 28
VALAKH M YA 75
VALUYEV A D 83
VARDOSANIDZE Z V 50
VARNAVSKIY O P 3
VARSHAL B G 75
VARTANYAN S A 7
VASIL'CHENKO G N 66
VASILENKO G I 66
VASILENKO L S 54
VASILISHCHEVA I V 79
VASILIU V 9
VASILYAK L M 12
VASIL'YEV A M 52
VASIL'YEV A V 37
VASIL'YEV G 17
VASIL'YEV L A 77
VASIL'YEV M V 29
VASIL'YEV N N 75
VASIL'YEV P P 32
VASIL'YEV S K 75
VASIL'YEVA I A 66
VASIN B L 83
VASNETSOV M V 49
VASYLYAK YA 76
VAYNDINER A A 14,16
VAYNDRUK E S 57
VAYSLEYB YU V 37,41
VDOVIN V A 46
VEDENOV A A 78
VENEDIKTOV V YU 29
VENERAKI I E 66
VENZEL' V I 52
VERBITSKIY N N 66
VERBOVETSKIY A A 48
VERETENNIKOV V V 46
VESELA Z 64
VETSKO V M 53
VEYKO V P 70,78
VIKHAREV V D 12
VIL'KOTSKIY M A 60
VINETSKIY V L 70
VINOGRADOV A V 87
VINOGRADOV I P 16
VINOKHODOV A YU 16
VINOKUROV S A 31
VISHNEVSKIY V N 24
VISTIN' L K 66
VLADIMIROV F L 25
VLASOV D V 72
VLASOV N G 66
VLASOVA R M 70
VO HONG ANH 27
VODOVATOV I A 30
VOGEL J 25
VOJTEK P 42
VOLCHINSKAYA M I 66
VOLEGOV YU V 58
VOL'F B YE 72
VOLKOV S N 59
VOLKOV S V 54
VOLKOV S YU 55
VOLKOV V N 19
VOLKOV YA F 88
VORLICEK V 76
VOROB'YEV S P 52
VOROB'YEV V S 78
VORONIN YE N 61
VORONKOVA G I 66
VOROPAYEV S G 66
VOYTENKOV A I 41
VOYTIK M G 41
VOYTOVICH A P 25
VVEDENSKIY V D 22,25
VYSHEMIRSKIY A V 67
VYSIKAYLO F I 16,17
VYSOTSKIY V I 33
V'YUGINA T S 62

WALTER B 25
WAWRZYNSKI J 31
WEISSBACH B 39
WERNICKE G 64
WIEDERHOLD G 25
WOJTKOWIAK J 12
WOLSKI J 81
WRONA R 34

YAKIMENKO M N 57
YAKIMOVICH A P 49,52
YAKOVENKO N A 38
YAKOVENKO P A 40
YAKOVENKO S S 66
YAKOVKIN I B 39
YAKOVLENKO S I 16,80
YAKOVLEV N L 73
YAKOVLEV N YE 44,74
YAKOVLEV V A 56,76
YAKOVLEV V YA 77
YAKOVLEV YE B 70
YAKOVUK O A 54
YAKUSHEV A I 9
YAKUSHEV A K 81
YAKUSHEV G G 64
YALYSHEV YU I 67
YAMSHCHIKOV V A 10
YANENKO N N 42
YANI YA 24,62
YANKEVICH Z 50
YANOVSKIY V P 22
YANUSOVA L G 69
YAREMCHUK V A 39
YARMOSH N A 49
YAROSHETSKIY I D 68
YAROSLAVSKIY L P 48
YAROVOY L K 59
YARTSEV V I 13
YASHIN G YU 70
YASHIN V YE 47
YASTREBKOV A B 12
YAVOKHIN A N 81
YEFIMENKO M N 13
YEFLOV V B 47
YEFREMOV A N 67
YEFREMOV N M 14
YEGOROV K D 46
YELAGIN V V 8
YELFIMIMOV O V 55
YELISEYEV A A 88
YELISEYEV P G 3,4
YELISEYEVA E G 37
YELIZAROVA T G 43
YELOV V V 14,16
YELYUKHIN V A 4
YEMBEGRENOV B 52
YEMEL'YANOV S A 68
YEPISHIN V A 57
YEREMIN V I 57
YEROKHIN A I 48
YEROKHOVETS V K 49
YESAYAN S KH 68
YESEPKINA N A 30
YEVDOKIMENKO YU I 33
YEVDOKIMOV A A 33
YEVDOKIMOV V A 71
YEVTIKHIYEV V P 5
YUDELEVICH I G 53
YUDIN V V 67
YUDINA L A 67
YUGOV V I 10,12
YUMASHEV K V 24
YURKEVICH B M 70
YUROVSKIY V A 16
YURYSHEV N N 17
YUSUBOV F M 26
YUZHAKOV A N 81

ZADIRANOV YU M 4
ZAGORSKAYA Z A 50
ZAGORSKIY YA T 56,57
ZAKHARCHENKO S V 46
ZAKHAROV S D 83
ZAKHAROV S M 88
ZAKHAROV S YA 23
ZAKHAROV V D 36
ZAKHAROV V YE 32
ZAKHAROV YU P 79
ZAKREVSKIY N V 8
ZAKRZEWSKI J 70
ZALESSKAYA G A 76
ZANADVOROV P N 70
ZANADVOROVA N V 64
ZAPESOCHNYY I P 13,67
ZAPOROZHETS YU B 83
ZARETSKIY D F 70
ZARGAR'YANTS M N 39
ZARIN A S 83
ZARIPOV SH B 31
ZASAVITSKIY I I 67
ZAVOROTNYY S I 21
ZAYAKIN V V 86
ZAYAKIN A A 14
ZEL'DOVICH B YA 25,52
ZELINKA J 5
ZEMLYANSKIY V M 25
ZEMSKIY V I 70
ZEMSKOV M YE 77
ZEMSKOV YE M 26

ZEYLIKOVICH I S 6
ZHABOTINSKIY M YE 37
ZHAKIN A I 70
ZHARIKOV YE V 1,2
ZHEKOV V I 3
ZHEKOV V L 13
ZHIGLINSKIY A G 76
ZHILINSKIY A P 19
ZHIMSKAYA N V 23
ZHITKOVA M B 2
ZHIZHIN G N 76
ZHUK V A 77,81
ZHUKOVSKIY V G 59
ZHUMABOYEV A 71
ZHURAVLEV YE YE 83
ZHURKIN B G 71
ZIANGIROVA G G 36
ZIBROV A S 4
ZIKRIN B O 53
ZIMENKO V I 71
ZIMOGLYADOVA YE A 48
ZINCHENKO A K 19
ZLOMANOV V P 4
ZOLOTOV YE M 23,41
ZOLOTUKHIN A A 87
ZOLOTUKHIN O G 29
ZOROV N B 21,53
ZOZULYA A A 29,30,80
ZSCHOCKE W 25
ZUBAREV I G 47
ZUBKOV L A 57
ZUBKOV V M 4,79,83
ZUBOV V V 14,21
ZUYEV V A 88,84
ZUYEV V S 17
ZUYKOV V A 27
ZVEREV G M 2
ZVEREV V M 55

END

FILMED

4-85

DTIC