UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS, No. 37 SEPTEMBER - OCTOBER 1978		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		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Intelligence Agency Directorate for Scientific and Technical Intelligence, ATTN: DT-1A		12. REPORT DATE June 6, 1979 13. NUMBER OF PAGES 100
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, Crystal Growing, Gamma Lasers, Laser Theory, Laser Biological Effects, Laser Communications, Laser Beam Propagation, Laser Computer Technology, Holography, Laser Chemical Effects, Laser Parameters, Laser Measurement Applications, Laser-Excited Optical Effects, Laser Beam-Target Interaction, Laser Plasma

20. ABSTRACT

This is the Soviet Laser Bibliography for September-October 1978 and is no. 37 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; crystal growing; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; beam-target interaction; and plasma generation and diagnostics.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

DST-1740Z-005-79

DEFENSE INTELLIGENCE AGENCY

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

AD A072356

BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS (U)

SEPTEMBER-OCTOBER 1978

JULY 1979

79 08 03 133

BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 37

SEPTEMBER - OCTOBER 1978

Date of Report

June 6, 1979

Vice Director for Production
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-1A.

Approved for public release; distribution unlimited

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 1978, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are included, as well as entries from the CIRC data base not otherwise covered. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.

SOVIET LASER BIBLIOGRAPHY, SEPTEMBER - OCTOBER 1978

TABLE OF CONTENTS

I. BASIC RESEARCH

A. Solid State Lasers

1. Crystal: Ruby 1

2. Crystal: Rare-Earth Activated

a. Nd^{3+} 1

3. Crystal: Miscellaneous 1

4. Semiconductor: Simple Junction

a. GaAs 2
b. CdS 2

5. Semiconductor: Mixed Junction ..... ---

6. Semiconductor: Heterojunction 2

7. Semiconductor: Theory 3

8. Glass: Nd 4

9. Glass: Miscellaneous ..... ---

B. Liquid Lasers

1. Organic Dyes

a. Rhodamine 5
b. Polymethine 5
c. Phthalimide 5
d. Coumarin 5
e. Miscellaneous Dyes 6

2. Inorganic Liquids ..... ---

C. Gas Lasers

1. Simple Mixtures

a. He-Ne 7

2. Molecular Beam and Ion

a. CO_2 8
b. CO^2 11
c. Noble Gas 12
d. N_2 12
e. Metal Vapor 12
f. Gasdynamic 14

3. Excimer 16

4. Theory 18

D. Chemical Lasers

1. F_2+H_2 (D_2) ..... ---

2. Photodissociative 20
3. Transfer 21

E. Components

1. Resonators 22
2. Pump Sources 22
3. Deflectors 23
4. Filters 24
5. Detectors 24
6. Modulators 25

F. Nonlinear Optics

1. Frequency Conversion 28
2. Parametric Processes 29
3. Stimulated Scattering

a. Raman 29
b. Brillouin 30
c. Miscellaneous Scattering 30

4. Self-focusing 30

5. Acoustic Interaction 30

6. General Theory 31

G. Spectroscopy of Laser Materials 32

H. Ultrashort Pulse Generation 33

J. Crystal Growing 34

K. Theoretical Aspects of Advanced Lasers 34

L. General Laser Theory 34

II. LASER APPLICATIONS

A. Biological Effects 36

B. Communications Systems 37

C. Beam Propagation

1. In the Atmosphere 41

2. In Liquids 42

3. Theory 42

D. Computer Technology 42

E. Holography 44

F. Laser-Induced Chemical Reactions 49

G. Measurement of Laser Parameters 50

H. Laser Measurement Applications

1. Direct Measurement by Laser 56

2. Laser-Excited Optical Effects 68

J. Beam-Target Interaction

1. Metal Targets 73

2. Dielectric Targets 74

3. Semiconductor Targets 76

4. Miscellaneous Studies 76

K. Plasma Generation and Diagnostics 77

III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS 82

IV. SOURCE ABBREVIATIONS 86

V. AUTHOR AFFILIATIONS 90

VI. AUTHOR INDEX 93

I. BASIC RESEARCH

A. SOLID STATE LASERS

1. Crystal: Ruby

1. Anikeyev, B.V., V.M. Andreyanov, V.A. Fenchak, and V.R. Kozubovskiy (136). Nature of the beam generation regime during active phasing of modes in a ruby laser. UFZh, no. 10, 1978, 1734-1736.

2. Crystal: Rare-Earth Activated

a. Nd^{3+}

2. Batashev, S.P., E.V. Bezlepko, O.L. Lebedev, Ye.A. Luk'yanets, N.G. Mekhryakova, V.M. Mizin, and V.A. Petrukhov (0). Passive Q-switching of a garnet laser with neodymium at the 1.3μ wavelength. ZhTF P, no. 20, 1978, 1208-1210.

3. Gusev, A.A., S.V. Kruzhalov, L.N. Pakhomov, and V.Yu. Petrun'kin (0). Self-synchronization of axial modes in a YAG:Nd^{3+} c-w laser. ZhTF P, no. 20, 1978, 1250-1253.

4. Yevtyukhov, K.N., and L.N. Kaptsov (0). Effect of thinning the axial mode spectrum of a c-w garnet laser with neodymium. ZhTF P, no. 20, 1978, 1213-1217.

3. Crystal: Miscellaneous

5. Khulugurov, V.M., and B.D. Lobanov (0). Generation of stimulated emission at coloring centers in NaF crystals at 300 K. ZhTF P, no. 19, 1978, 1175-11

4. Semiconductor: Simple Junction

a. GaAs

6. Cone, G. (NS). GaAs lasers. Studii si cercetari de fizica.(RZhF, 10/78, 10D992)

7. Gribkovskiy, V.P., V.A. Ivanov, V.V. Parashchuk, G.I. Ryabtsev, and G.P. Yablonskiy (3). Stimulated emission in GaAs under excitation by a high-voltage pulsed electrical field. KE, no. 9, 1978, 2044-2046.

8. Velichanskiy, V.L., A.S. Zibrov, V.S. Kargopol'tsev, V.I. Molochev, V.V. Nikitin, V.A. Sautenkov, G.G. Kharisov, and D.A. Tyurikov (0). Limit linewidth of injection laser generation. ZhTF P, no. 18, 1978, 1087-1091.

9. Yeliseyev, P.G., V.N. Lavrov, and V.N. Morozov (0). Quenching of injection laser relaxation oscillations by external excitation. ZhTF P, no. 19, 1978, 1160-1163.

b. CdS

10. Brodin, M.S., N.I. Vitrikhovskiy, A.A. Kipen', S.G. Shevel', and N.I. Yanushevskiy (5,6). Spectral characteristics and scheme for high-temperature laser generation in cadmium sulfide petal crystals. UFZh, no. 10, 1978, 1740-1743.

5. Semiconductor: Mixed Junction

6. Semiconductor: Heterojunction

11. Belyaletdinov, I.F, V.I. Borodulin, M.V. Zverkov, Ye.M. Zolotov, V.P. Konyayev, S.A. Pashko, V.M. Pelekhatyy, and A.M. Prokhorov (1). Investigation of optical waveguides based on GaAlAs-GaAs heterostructures. ZhTF P, no. 19, 1978, 1171-1175.

12. Bogatov, A.P., Yu.V. Gurov, L.M. Dolginov, P.G. Yeliseyev, B.N. Sverdlov, K.A. Khayretdinov, and Ye.G. Shevchenko (1). Narrowband tunable hetero-injection laser at 1.06μ. KSpF, no. 3, 1978, 25-29. (RZhF, 10/78, 10D996)

7. Semiconductor: Theory

13. Bakhert, Kh.Yu., A.P. Bogatov, Kh.A. Dzhalolov, P.G. Yeliseyev, A. Kayper, and M.A. Man'ko (1). Injection laser wtih an external resonator formed by Michelson interferometer mirrors. KSpF, no. 3, 1978, 30-34. (RZhF, 10/78, 10D990)

14. Bogdankevich, O.V., B.A. Bryunetkin, S.A. Darznek, M.M. Zverev, and V.A. Ushakhin (445). Two-dimensional varizonal structures in longitudinally-pumped semiconductor lasers. KE, no. 9, 1978, 2035-2038.

15. Demidov, S.S., G.S. Kozina, L.N. Kurbatov, A.F. Myasnikov, and V.S. Rudnevskiy (0). Compact laser IR radiator based on an auto-emission cathode tube. KE, no. 9, 1978, 2049-2052.

16. Karpov, S.Yu., V.I. Kuchinskiy, and Ye.L. Portnoy (0). Semiconductor laser with a combined waveguide. ZhTF P, no. 19, 1978, 1156-1160.

17. Solov'yev, V.Ye. (2). Study of radiation dynamics and methods for controlling injection laser radiation. Moskovskiy GU. Dissertation, 1977, 15 p. (KLDV, 9/78, 21140)

18. Zimmermann, R. (NS). Final state interactions in the gain and absorption spectra of electron-hole liquids. Physica status solidi, v. B26, no. 1, 1978, K63-K66. (RZhF, 10/78, 10D969)

8. Glass: Nd

19. Alekseyev, N.Ye., V.P. Gapontsev, A.K. Gromov, A.A. Izyneyev, Yu.L. Kopylov, V.B. Kravchenko, I.I. Kuratev, and A.V. Shestakov (0). Miniature phosphate glass lasers with high Nd^{3+} ion concentrations. RiE, no. 9, 1978, 1896-1903.

20. Alekseyev, V.N., Ye.G. Bordachev, S.A. Vitsinskiy, V.I. Kulakov, V.N. Rybin, and A.D. Starikov (0). The effect of the pumping radiation pulse shape on the stored energy level in Nd:glass amplifiers. KE, no. 10, 1978, 2291-2293.

21. Baranova, N.B., N.Ye. Bykovskiy, Yu.V. Senatskiy, and S.V. Chekalin (1). Nonlinear processes in the optical medium of powerful neodymium lasers. Tr 1, 84-117.

22. Dinev, S., I. Radoslavova, K. Stamenov, and K. Stankov (NS). Single-frequency stabilized Nd:glass laser. Bolgarskiy fizicheskiy zhurnal, no. 6, 1977, 668-678. (RZhF, 10/78, 10D1117)

23. Dokashenko, V.P., and E.V. Matyushkin (36). The possibility of broadening the tunable range of single-pulse neodymium lasers. KE, no. 9, 1978, 2043-2044.

24. Mit'kin, V.M., O.S. Shchavelev, and V.B. Zheltov (7). Mechanical strength and thermostability of neodymium glass. OMP, no. 9, 1978, 39-42.

25. Votinov, M.P., A.F. Kokunina, G.M. Yemel'yanova, T.F. Ivanova, B.D. Piterkin, and Z.A. Smirnova (0). Polymer dielectric materials based on styrene and methylmethacrylate copolymers for quantum electronics. Sb 1, 63-67. (RZhF, 10/78, 10D1151)

26. Zakelj, J., and C. Brajnik (NS). Pulsed Nd:glass laser. Elektrotehnicki vestnik, no. 5, 1977, 297-298. (RZhRadiot, 10/78, 10Ye184)

9. Glass: Miscellaneous

B. LIQUID LASERS

1. Organic Dyes

a. Rhodamine

27. Gintoft, R.I., F.V. Karpushko, A.S. Kireyev, I.A. Morozov, Ye.V. Pan'ko, and G.V. Sinitsyn (0). Dye laser for interference metrological measurements. ZhPS, v. 29, no. 3, 1978, 432-435.

28. Korobov, V.Ye. (0). Influence of triplet-triplet absorption on the lasing properties of rhodamine dyes. ZhPS, v. 29, no. 4, 1978, 761.

b. Polymethine

29. Gudyalis, V.V., Ye.P. Yeremeyeva, I.Yu. Slavenas, V.M. Ovchinnikov, I.I. Chesnulyavichus, and A.S. Yuozapavichus (0). Effect of pulse duration on the degree of transparency of polymethine dye solutions. ZhTF P, no. 12, 1978, 693-695. (RZhRadiot, 9/78, 9Ye101)

c. Phthalimide

30. Gruzinskiy, V.V., and T.G. Staneva (0). Spectral-luminescent properties of phthalimides governing their lasing capability and lasing features. ZhPS, v. 29, no. 4, 1978, 614-620.

d. Coumarin

31. Dzyubenko, M.I., V.V. Maslov, I.G. Naumenko, V.M. Nikitchenko, and V.P. Pelipenko (0). Generation of stimulated emission by coumarin derivatives under laser and flashlamp excitation. OiS, v. 45, no. 4, 1978, 814-416.

e. Miscellaneous Dyes

32. Abakumov, G.A., M.M. Mestechkin, V.N. Poltavets, and A.P. Simonov (0). The short-wavelength limit of stimulated emission in organic dye solutions. KE, no. 9, 1978, 1975-1981.

33. Anufrik, S.S., V.A. Mostovnikov, V.S. Motkin, and A.N. Rubinov (0). Dye lasers with flashlamp pumping, operating in a mode-locking regime. APH, no. 3, 1977, 221-225. (RZhF, 10/78, 10D1109)

34. Baczynki, A., and T. Marszalek (NS). Kinetic equations of a dye laser. BAPS Math, no. 1, 1978, 91-94. (RZhF, 9/78, 9D968)

35. Belokon', M.V., A.N. Rubinov, and A.V. Adamushko (0). Automatic locking on the radiation frequency of a c-w dye laser near the absorption lines of atoms in an electric discharge. ZhPS, v. 29, no. 3, 1978, 409-414.

36. Dietel, W., and D. Kuehlke (NS). The dye laser: a laser with tunable wavelength. Bild und Ton, no. 5, 1978, 133-138. (RZhRadiot, 10/78, 10Ye159)

37. Efendiyev, T.Sh., A.N. Rubinov, and A.L. Kiselevskiy (0). Dye laser with second order distributed feedback. APH, no. 3, 1977, 215-219. (RZhF, 10/78, 10D1036)

38. Gilermo, A., I.I. Kolbin, and I.V. Cheremiskin (0). Thin-film ROROR dye lasers. IVUZ, Radioelektr, no. 10, 1978, 133-134.

39. Gratsianov, K.V., V.V. Danilov, A.S. Yeremenko, Yu.T. Mazurenko, B.G. Malinin, and A.I. Stepanov (0). Dye laser generation characteristics at high coherent excitation levels. ZhPS, v. 29, no. 3, 1978, 442-445.

40. Koenig, R., W. Dietel, and W. Grassme (NS). Dye lasers: a new spectroscopic light source for science and technology. Feingeraetechnik, no. 7, 1978, 313-316. (RZhRadiot, 10/78, 10Ye157)

41. Mueller, V.R., and E. Neef (NS). Pulse distortion in a dye laser with a slowly saturable absorber. Annalen der Physik, no. 6, 1977, 441-455. (RZhF, 9/78, 9D970)

2. Inorganic Liquids

C. GAS LASERS

1. Simple Mixtures

a. He-Ne

42. Guga, Z.P., B.M. Kalagurskiy, Ya.D. Saychuk, and A.I. Senyukov (0). Long life small-size He-Ne laser. PTE, no. 5, 1978, 261.

43. Improving the service life of a He-Ne laser. Godishnik na Visshite uchebni zavedeniya. Tekhnichna fizika, no. 1, 1974(1976), 11-18. (RZhRadiot, 10/78, 10Ye115)

44. Ishchutin, A.N., O.A. Nikol'skiy, and V.I. Yudin (138). Study of the efficiency of a He-Ne laser at varying composition of the active medium. Deposit at VINITI, no. N1595-78, 12 May 1978, 9 p. (RZhRadiot, 10/78, 10Ye112)

45. Kolomnikov, Yu.D. (163). Interferometric measurement of an isotope shift at 0.63μ for Ne-20 and Ne-22. Tr 2, 20-25. (RZhF, 9/78, 9D981)

46. Kostin, V.N., V.V. Belous, and L.V. Sivash (34). Study of the effect of an inhomogeneous high-frequency field on various parameters of an LG-126 He-Ne laser. Tr 3, 101-102. (RZhF, 10/78, 10D1037)

47. Sologub, V.P. (29). Experimental study of the effect of nonequilibrium processes in a gas-discharge plasma of an active medium, on the fluctuation characteristics of He-Ne laser radiation. Leningradskiy politekhnicheskiy institut. Dissertation, 1977, 21 p. (KLDV, 10/78, 23719)

48. Tumanov, B.N., B.I. Levit, and A.S. Babich (464). Autodyne effect in gas lasers. IVUZ Radiofiz, no. 9, 1978, 1260-1267.

2. Molecular Beam and Ion

a. CO_2

49. Adamovich, V.T., V.Yu. Baranov, A.P. Napartovich, I.V. Novobrantsev, A.N. Starostin, Yu.V. Petrushevich, and A.P. Strel'tsov (0). Effect of nonlinear relaxation on the lasing characteristics of a CO_2 molecule. Sb 2, 39-40. (RZhRadiot, 10/78, 10Ye34)

50. Asinovskiy, E.I., L.M. Biberman, S.P. Bronin, V.L. Nizovskiy, V.N. Sushkin, V.I. Shabashov, and Yu.V. Yartsev (0). Optical characteristics of a c-w non-selfsustained glow discharge in mixtures of carbon dioxide, nitrogen and helium. Sb 2, 7-8. (RZhRadiot, 10/78, 10Ye85)

51. Balandin, S.F., V.V. Plastinin, A.A. Solov'yev, V.V. Tikhomirov, K.N. Yugay, and A.K. Yarosh (0). Study of the physicochemical processes in the plasma of a pulsed CO_2 laser with ultraviolet pumping. Sb 2, 100. (RZh-Radiot, 10/78, 10Ye33)

52. Baranov, V.Yu., D.D. Malyuta, and V.S. Mezhevov (0). Efficiency of using gas flow in pulsed-periodic CO_2 lasers. KE, no. 10, 1978, 2186-2195.

53. Bulanin, V.V., and A.V. Petrov (0). Study of hybrid CO_2 laser operation. OiS, v. 45, no. 3, 1978, 582-589.

54. Burmasov, V.S. (79). Compact single-mode CO_2 laser. PTE, no. 5, 1978, 205.

55. Chekushina, L.V. (442). Characteristics of an electroionization high-pressure Q-switched CO_2 laser. KE, no. 9, 1978, 2029-2031.

56. Dumitras, D.C., N. Comaniciu, and D.C. Dutu (NS). Pulsed operation of a CO_2 waveguide laser. Revue roumaine de physique, no. 1, 1978, 3-10. (RZhF, 10/78, 10D1068)

57. Galaktionov, I.I., and V.Yu. Gorelov (0). Electrical breakdown of a photo-ionization CO_2 laser medium: the effect on emission and its development. ZhTF, no. 10, 1978, 2143-2145.

58. Galaktionov, M.I., and V.A. Pivovar (0). Effect of negative ions on the current characteristics of an internal discharge in mixtures containing CO_2. Sb 2, 26-28. (RZhRadiot, 10/78, 10Ye79)

59. Glotov, Ye.P., V.A. Danilychev, A.Ye. Kruglyy, V.V. Pustovalov, A.M. Soroka, and N.V. Cheburkin (1). Effect of active medium gasdynamic motion during the pumping pulse on the angular divergence of electroionization laser radiation. KE, no. 9, 1978, 1924-1932.

60. Gonchukov, S.A., S.T. Kornilov, and Ye.D. Protsenko (16). CO_2 waveguide lasers with tunable emission frequency. ZhTF, no. 9, 1978, 1903-1906.

61. Klopovskiy, K.S., G.B. Lopantseva, and A.N. Starostin (98). Chemical processes in the plasma of a non-selfsustaining CO_2 laser discharge. KhVE, no. 5, 1978, 448-455.

62. Mazurenko, Yu.T., and Yu.A. Rubinov (0). Conditions for forming a homogeneous selfsustained discharge in CO_2 lasers at a superatmospheric pressure. Sb 2, 9-11. (RZhMekh, 9/78, 9B392)

63. Niz'yev, V.G. (23). Study of a diffuse discharge in CO_2 laser systems. Institut atomnoy energii. Dissertation, 1977, 17 p. (KLDV, 9/78, 21111)

64. Pivovar, V.A. (0). Improving the accuracy of a model of vibrational temperature for describing the lasing characteristics of a short-pulse CO_2-N_2-He laser. Sb 2, 44-45. (RZhRadiot, 10/78,10Ye78)

65. Rubinov, Yu.A., and Yu.T. Mazurenko (0). High-pressure CO_2 laser with a cascade discharge. ZhTF, no. 10, 1978, 2146-2149.

66. Sinitsyn, A.M. (15). Population and gain in a waveguide CO_2 laser. KE, no. 10, 1978, 2179-2185.

67. Vagin, S.P., S.S. Vorontsov, and Yu.A. Yakobi (0). Infrared luminescence of the active medium of a CO_2 laser. ZhPS, v. 29, no. 4, 1978, 621-626.

b. CO

68. Avtonomov, V.P., M.V. Zavertyayev, Yu.A. Kochetkov, V.N. Ochkin, and N.N. Sobolev (1). Selection of emission lines in an electric discharge CO laser. KE, no. 9, 1978, 1896-1903.

69. Gudzenko, L.I., V.S. Malyshevskiy, and S.I. Yakovlenko (1). CO laser pumped by a rigid source. ZhTF, no. 10, 1978, 2150-2156.

70. Ionikh, Yu.Z., A.L. Kuranov, N.P. Penkin, and V.F. Sharkov (0). Probability of heterogeneous relaxation of vibrationally excited CO molecules on a glass surface in a discharge. ZhTF P, no. 5, 1978, 246-247. (RZhF, 9/78, 9G203)

71. Ionikh, Yu.Z., A.L. Kuranov, and N.P. Penkin (0). Deactivation of excited CO molecules in the interior and at the wall of a discharge tube. (RZh-Radiot, 10/78, 10Ye53)

72. Konev, Yu.B., and I.V. Kochetov (0). Theoretical study of lasing dynamics and characteristics of a pulsed CO laser with line selection, suitable for laser isotope enrichment. Sb 2, 58-60. (RZhRadiot, 10/78, 10Ye636)

73. Krasil'nikov, S.S., and I.V. Novobrantsev (0). CO laser excited by a radioactive wall. Sb 2, 49-50. (RZhRadiot, 10/78, 10Ye146)

74. Lotkova, E.N., and V.V. Sokovikov (0). Collision processes and the saturation parameter of a gas discharge CO laser. Sb 2, 31-32. (RZhRadiot, 10/78, 10Ye124)

75. Vasilik, N.Ya., V.A. Vakhnenko, A.D. Margolin, and V.M. Shmelev (0). Energetic characteristics of a CO gasdynamic laser. ZhPMTF, no. 5, 1978, 16-23.

c. Noble Gas

76. Lakoba, I.S. (2). Active media of plasma lasers based on noble gas compounds. Moskovskiy GU. Dissertation, 1977, 16 p. (KLDV, 9/78, 21086)

77. Veselov, D.V., I.Ye. Sakharov, and S.V. Shatalin (29). Use of trace helium to suppress plasma instability of an argon ion laser. ZhTF, no. 9, 1815-1818.

d. N_2

78. Sviridov, A.N., and Yu.D. Tropikhin (0). Kinetics of N_2 laser generation in a pulsed-periodic regime. KE, no. 9, 1978, 2015-2026.

79. Sviridov, A.N., and Yu.D. Tropikhin (0). N_2 laser emission kinetics in a pulsed-periodic mode. II. Experiment. KE, no. 10, 1978, 2085-2097.

80. Vokhmin, P.A., and I.I. Klimovskiy (0). Limit characteristics of lasers using self-limited transitions. TVT, no. 5, 1978, 1080-1085.

e. Metal Vapor

81. Aleksakhin, I.S., A.A. Borovik, I.P. Zapesochnyy, and V.P. Starodub (0). Role of atomic self-ionization states in the population of a $6^2S_{1/2}$ laser level of a strontium ion. Sb 2, 156-158. (RZhRadiot, 10/78, 10Ye121)

82. Babeyko, Yu.A., L.A. Vasil'yev, A.V. Sokolov, A.V. Sviridov, and L.V. Tatarintsev (0). Coaxial copper vapor laser under higher atmospheric buffer gas pressure. KE, no. 9, 1978, 2041-2042.

83. Bogacheva, S.P. (0). Calculating the impurities in a two-component He+Cd laser. Sb 2, 167-169. (RZhRadiot, 10/78, 10Ye120)

84. Bokhan, P.A., and V.I. Solomonov (0). Barium vapor laser with high mean radiation intensity. ZhTF P, no. 20, 1978, 1210-1213.

85. Bokhan, P.A., V.A. Gerasimov, V.I. Solomonov, and V.B. Shcheglov (78). Emission mechanism in a copper vapor laser. KE, no. 10, 1978, 2162-2173.

86. D'yachkov, L.G., and G.A. Kobzev (0). Electron temperature in the interpulse afterglow of metal vapor lasers. Sb 2, 148-150. (RZhRadiot, 10/78, 10Ye102)

87. Isakov, I.M., and A.G. Leonov (0). Effect of discharge parameters on lasing in copper vapor at near atmospheric pressure. Sb 2, 143-144. (RZhRadiot, 10/78, 10Ye94)

88. Kartazayev, V.A., and Yu.A. Tolmachev (0). Penning ionization and nonresonant charge transfer in the discharge afterglow in a He-Cd mixture. OiS, v. 45, no. 4, 1978, 648-655.

89. Kazaryan, M.A., G.G. Petrash, and A.N. Trofimov (0). Kinetics of processes in a copper chloride vapor laser. Sb 2, 133-135. (RZhRadiot, 10/78, 10Ye96)

90. Kirilov, A.Ye., Yu.P. Polunin, A.N. Soldatov, and V.F. Fedorov (0). Study of lasing in copper and gold vapor in a pulsed regime. Sb 2, 153-155. (RZhRadiot, 10/78, 10Ye93)

91. Kukharev, V.N., and A.N. Soldatov (0). Study of the electric parameters of a pulsed plasma in a Pb-Ne laser. Sb 2, 159-161. (RZhRadiot, 9/78, 9Ye66)

92. Markova, S.V., G.G. Petrash, and V.M. Cherezov (0). Study of the lasing mechanism in a pulsed bismuth vapor laser. Sb 2, 151-152. (RZhRadiot, 10/78, 10Ye100)

93. Tuchin, V.V. (0). Frequency fluctuations in a cataphoretic He-Cd^+ laser. OiS, v. 45, no. 4, 1978, 743-750.

94. Vokhmin, P.A., I.I. Klimovskiy, and L.A. Selezneva (0). Efficiency of copper vapor lasers. Sb 2, 140-142. (RZhRadiot, 10/78, 10Ye95)

95. Voronyuk, L.V., M.F. Veresh, V.Yu. Koshtura, V.S. Rogulich, and V.P. Starodub (0). Obtaining population inversion in Cu(I) in a copper plasma jet. Sb 2, 175-176. (RZhRadiot, 10/78, 10Ye148)

96. Voronyuk, L.V., V.A. Kel'man, A.N. Konoplev, and I.I. Opachko (0). Study of pulsed lasing in a mixture of copper and lead vapor. Sb 2, 177-178. (RZhRadiot, 9/78, 9Ye68)

f. Gasdynamic

97. Aleksandrov, B.S., G.A. Andronov, V.A. Belavin, and V.F. Sharkov (23). Investigating the energy characteristics of the working media of CO gasdynamic lasers. TVT, no. 5, 1978, 1112-1114.

98. Effect of temperature on the spectra of a gasdynamic excimer laser using mixtures of Ne, Xe, and NF_3. Sb 2, 128. (RZhRadiot, 10/78, 10Ye128)

99. Gavrikov, V.F., A.N. Orayevskiy, A.K. Piskunov, N.B. Rodionov, and V.A. Shcheglov (1). Diffusion thermal gasdynamic lasers using D_2-HCl-Ar and D_2-HCl-He mixtures. ZhTF P, no. 17, 1978, 1029-1033.

100. Ivanov, V.N. (17). Study of the characteristics of a gasdynamic laser using combustion products of hydrocarbon-air mixtures. Institut problem mekhaniki AN SSSR. Dissertation, 1978, 24 p. (KLDV, 10/78, 23569)

101. Karpukhin, V.T., and Yu.B. Konev (0). Theoretical study of the characteristics of high-temperature gasdynamic lasers. Sb 2, 54-56. (RZh-Mekh, 9/78, 9B393)

102. Kogan, M.N., A.N. Kucherov, V.V. Mikhaylov, and A.S. Fonarev (0). Planar gas flows with small energy input. MZhiG, no. 5, 1978, 95-102.

103. Kudryavtsev, N.N., S.S. Novikov, and I.B. Svetlichnyy (0). Investigation of the vibrational temperatures of carbon dioxide in products of the reaction between carbon monoxide and nitrous oxide under gasdynamic laser conditions. 1. Experimental method. Inzhenerno-fizicheskiy zhurnal, v. 35, no. 4, 1978, 581-590.

104. Makarov, V.N., and Yu.V. Tunik (0). Determination of the optimal nozzle parameters in a gasdynamic laser. ZhPMTF, no. 5, 1978, 23-26.

105. Rodionov, N.B. (1). Study of the kinetic processes in a gasdynamic flow of a $CO-CS_2-He$ mixture in a Laval nozzle. Fizicheskiy institut AN SSSR. Preprint, no. 12, 1978, 34 p. (RZhF, 10/78, 10D1074)

106. Testov, V.G., Yu.I. Grin',and V.D. Minenkov (0). Increasing the existence time of an active laser mixture in a pulsed gasdynamic laser using a shock tube. Sb 2, 57. (RZhMekh, 9/78, 9B394)

107. Testov, V.G., Yu.I. Grin', G.I. Mishin, R.L. Petrov, and V.D. Minenkov (0). Increasing the active medium lifetime of a pulsed gasdynamic N_2O laser. ZhTF P, no. 18, 1978, 1113-1116.

108. Vedeneyev, A.A., A.Yu. Volkov, A.I. Demin, Ye.M. Kudryavtsev, A.N. Logunov, and N.N. Sobolev (0). New mechanism for the operation of a gasdynamic CO_2 laser with thermal pumping: lasing at 18.4μ. Sb 2, 99, (RZhMekh, 9/78, 9B396)

109. Vyskubenko, B.A., Ye.T. Demenyuk, A.D. Yeremin, G.A. Kirillov, Yu.V. Kolobyanin, S.B. Kormer, V.K. Ladagin, V.M. Linnik, N.A. Nitochkin, and V.D. Urlin (0). Gasdynamic CO_2 laser with gas heating by electrical explosion. KE, no. 10, 1978, 2154-2161.

110. Zhinzhikov, G.M., G.A. Luk'yanov, and N.O. Pavlova (0). Experimental study of population inversion at helium levels during supersonic expansion of a plasma. Sb 2, 68-70. (RZhMekh, 9/78, 9B395)

3. Excimer

111. Baranov, V.Yu., V.M. Borisov, Yu.B. Kiryukhin, and Yu.Yu. Stepanov (0). Changes in characteristics of an electric discharge XeF laser under increasing pressure. KE, no. 10, 1978, 2285-2289.

112. Baranov, V.Yu., V.M. Borisov, F.N. Vysikaylo, S.G. Mamonov, Yu.B. Kiryukhin, and Yu.Yu. Stepanov (0). Energy, time, and spectral characteristics of a high-power XeF laser. Sb 2, 102-103. (RZhRadiot, 10/78, 10Ye58)

113. Belousova, I.M., Yu.I. Tsymshits, V.A. Korobitsin, and V.G. Neverov (0). Kinetics of the processes in the interaction of relativistic e-beams with the active media of excimer lasers. Sb 2, 129-130. (RZhRadiot, 10/78, 10Ye57)

114. Bychkov, Yu.I., I.N. Konovalov, G.A. Mesyats, and V.F. Tarasenko (78). XeF laser with discharge maintained by an electron beam of microsecond duration. ZhTF, no. 9, 1978, 1908-1913.

115. Bychkov, Yu.I., Yu.D. Korolev, G.A. Mesyats, A.P. Khuzeyev, and I.A. Shchemyakin (0). Study of the dynamics of energy input into a gas and luminescence in XeF, XeCl and KrF molecules in an e-beam-triggered internal discharge. Sb 2, 122-124. (RZhRadiot, 9/78, 9Ye39)

116. Danilychev, V.A., V.M. Zubkov, O.M. Kerimov, A.I. Milanich, and S.I. Sagitov (1). Beam strength of interference coatings in the UV region of the spectrum produced by e-beam vaporization. KE, no. 9, 1978, 2027-2029.

117. Gudzenko, L.I., D.N. Kuznetsova, I.S. Lakoba, A.A. Medvedev, and V.F. Chinnov (0). Study of a pulsed discharge in a dense mixture of hydrogen with xenon. Sb 2, 109-111. (RZhRadiot, 10/78, 10Ye82)

118. Isakov, I.M., A.G. Leonov, and V.Ye. Ogluzdin (0). Raising the efficiency of a XeF laser excited by a transverse discharge. ZhTF P, no. 20, 1978, 1228-1231.

119. Kudryavtsev, Yu.A. (0). Excimer lasers. Zarubezhnaya radioelektronika, no. 4, 1978, 106-122. (RZhF, 10/78, 10D1046)

120. Malinin, A.N., A.K. Shuaibov, V.I. Opalenik, and V.S. Shevera (0). Device for exciting and studying excimer molecules in chemical element vapors. Sb 2, 118-119. (RZhRadiot, 10/78, 10Ye54)

121. Shuaibov, A.K., V.S. Shevera, V.Z. Papp, B.P. Grigorenko, and S.S. Lizak (0). Excitation of noble gas halides in an alternating-current discharge. Sb 2, 115-117. (RZhRadiot, 10/78, 10Ye65)

122. Zuyev, V.S., A.V. Kapayev, L.D. Mikheyev, and D.B. Stavrovskiy (0). Analysis of the vibrational structure of the $B^2\Sigma_{1/2} - X^2\Sigma_{1/2}$ laser transition in an XeF molecule. Sb 2, 107-108. (RZhRadiot, 10/78, 10Ye59)

4. Theory

123. Aleksandrov, N.L. (0). Positive ions in a gas discharge plasma in an O_2-doped CO-He mixture. Sb 2, 61-62. (RZhRadiot, 10/78, 10Ye84)

124. Aleksandrov, V.V., V.N. Koterov, and A.M. Soroka (0). Asymptotic analysis of the structure of a semi-selfsustained gas discharge. ZhVMMF, no. 5, 1978, 1214-1229.

125. Gonchukov, S.A., S.T. Kornilov, V.N. Petrovskiy, and Ye.D. Protsenko (0). Dual-mode gas laser with a waveguide-type resonator. Deposit at VINITI, no. 1620-78, 15 May 1978, 8 p. (RZhF, 9/78, 9D937)

126. Ioan, G. (NS). Molecular gas laser. Patent Romania, no. 15216, issued 5 March 1977. (RZhRadiot, 9/78, 9Ye49)

127. Ishchenko, V.N. (75). High-pressure pulsed gas lasers. Institut avtomatiki i elektrometrii SOAN. Dissertation, 1978, 15 p. (KLDV, 10/78, 23645)

128. Izmaylov, I.A., V.A. Kochelap, and Yu.A. Kukibnyy (6). Light amplification in photorecombination reactions induced by a shock. Sb 3, 23-37.

129. Lipatov, A.S., and V.N. Parygin (2). Polarization of radiation from gas lasers with small-phase anisotropy of the resonator. KE, no. 10, 1978, 2098-2103.

130. Lobanov, A.N. (1). Kinetic processes in electrically ionized and e-beam pumped high-pressure gas lasers. Fizicheskiy institut AN SSSR. Dissertation, 1977, 22 p. (KLDV, 9/78, 21092)

131. Lopantseva, G.B., A.F. Pal', I.G. Persiantsev, A.F. Perevoznov, and A.P. Starostin (0). Study of a nonselfsustained discharge in a gas flow used in molecular lasers. Sb 2, 15-17. (RZhMekh, 9/78, 9B401)

132. Manita, O.F. (34). Stimulated emission from polyatomic molecules excited by powerful CO_2 laser pulses. Sb 3, 59-65.

133. Mel'nikov, L.A., V.A. Sedel'nikov, M.M. Stol'nits, V.V. Tuchin, and N.A. Frolova (0). Effect of the isotopic composition of the active medium on the dispersion characteristics of a gas laser. Sb 4, 118-129. (RZhF, 9/78, 9D980)

134. Mikhalevskiy, V.S., V.F. Papakin, and A.Yu. Sonin (0). Deactivating the plasma and cooling the gas after a pulsed discharge in nitrogen. Sb 2, 97-98. (RZhRadiot, 10/78, 10Ye47)

135. Mkrtchyan, M.M., and V.T. Platonenko (2). Relaxation mechanism using rotational sublevels of molecules during saturation of the vibrational-rotational transition. KE, no. 10, 1978, 2104-2109.

136. Persiantsev, I.G., V.D. Pis'mennyy, V.M. Polushkin, A.T. Rakhimov, M.A. Timofeyev, and Ye.G. Treneva (0). Electric field distribution in a non-selfsustained discharge in molecular gases. Sb 2, 18-20. (RZhRadiot, 10/78, 10Ye80)

137. Shevera, V.S., S.V. Klyuchkin, and M.T.I. Soskida (0). Forming a population inversion at VUV transitions in an overcharge. Sb 2, 172-174. (RZhRadiot, 10/78, 10Ye66)

138. Trushin, S.A., and V.V. Churakov (0). Lasing in a high-pressure molecular gas under optical pumping. Sb 5, pp not given. (RZhRadiot, 10/78, 10Ye35)

139. Tumanov, O.A. (72). Experimental study of population inversion at vibrational levels of molecules during their pumping by laser radiation. Institut spektroskopii AN SSSR. Dissertation, 1977, 24 p. (KLDV, 9/78, 21151)

140. Zhdanok, S.A., A.P. Kapartovich, and A.N. Starostin (0). Determining the distribution function of diatomic molecules by vibrational states. Sb 2, 46-48. (RZhRadiot, 10/78, 10Ye15)

D. CHEMICAL LASERS

1. F_2+H_2 (D_2)

2. Photodissociative

141. Antonov, A.S., I.M. Belousova, V.A. Gerasimov, O.B. Danilov, A.P. Zhevlakov, N.V. Sapelkin, and I.L. Yachnev (0). Vacuum-tube photodissociation laser with 1000 J energy and 1.4% efficiency. ZhTF P, no. 19, 1978, 1143-1145.

142. Belousova, I.M., O.B. Danilov, A.P. Zhevlakov, and V.M. Kiselev (7). Lamp-pumped photodissociation laser with improved features. OMP, no. 10, 1978, 23-26.

143. Belousova, I.M., O.B. Danilov, A.P. Zhevlakov, N.V. Sapelkin, and I.L. Yachnev (0). Flashlamp photodissociative laser with an energy of 1000 J and efficiency of 1.4%. Sb 2, 63-64. (RZhRadiot, 10/78, 10Ye138)

144. Vinokurov, G.N., and V.Yu. Zalesskiy (0). Chemical kinetics and gasdynamics of a single-pulse iodine laser with an optically thick medium. KE, no. 10, 1978, 2110-2122.

145. Vinokurov, G.N., V.Yu. Zalesskiy, and P.I. Krepostnov (0). Physics of an iodine laser with an optically thick medium and flashlamp pumping. Sb 2, 65. (RZhRadiot, 10/78, 10Ye105)

146. Zalesskiy, V.Yu., and A.M. Kokushkin (0). Physical bases for optimizing the composition of the active media in iodine photodissociative lasers. Sb 2, 66-67. (RZhRadiot, 10/78, 10Ye137)

3. Transfer

147. Grigor'yev, P.G. (1). Efficient DF-CO_2 amplifier using a high-power photoinduced chain reaction. Fizicheskiy institut AN SSSR. Dissertation, 1978, 24 p. (KLDV, 10/78, 23630)

148. Leshenyuk, N.S., V.V. Nevdakh, and L.N. Orlov (0). Study of the migration processes of vibrational energy in CO_2-N_2-H_2O. Sb 2, 24-25. (RZhRadiot, 10/78, 10Ye77)

E. COMPONENTS

1. Resonators

149. Gibadullin, N.S. (40). Study of a laser resonator amplifier with low activity of the medium in the visible range. Tbiliskiy GU. Dissertation, 1977, 21 p. (KLDV, 9/78, 21055)

150. Marchenko, V.G. (0). Estimate of periodic mode losses. ZhPS, v. 29, no. 3, 1978, 568-570.

2. Pump Sources

151. Basov, Yu.G., S.A. Boldyrev, S.F. Dzyubanov, and A.N. Tokareva (0). Change in the characteristics of flashlamps with a short duration discharge, due to reflector effects. ZhPS, v. 29, no. 3, 1978, 419-423.

152. Basov, Yu.G., S.F. Dzyubanov, S.G. Morozova, and V.M. Usova (0). Characteristics of ISP 5000 tubular flashlamps with short-duration discharge. ZhPS, v. 29, no. 4, 1978, 722-729.

153. Bondarev, A.S., E.M. Grintsevich, S.I. Yeliseyev, and V.V. Serov (0). Control and power supply unit for a "Samotsvet-OK" flashlamp-pumped organic dye laser. Sb 5, 61-62. (RZhRadiot, 10/78, 10Ye446)

154. Borovich, B.L., V.S. Zuyev, V.A. Katulin, L.D. Mikheyev, F.A. Nikolayev, O.Yu. Nosach, and V.B. Rozanov (0). High-current discharges as an optical pumping source. Itogi nauki i tekhniki. VINITI. Seriya Radiotekhnika, no. 15, 1978, 5-296. (RZhF, 9/78, 9D923)

155. Golger, A.L., L.I. Gudzenko, and S.I. Yakovlenko (1,74). Direct conversion of solar energy into laser radiation. KE, no. 9, 1978, 1982-1989.

156. Grintsevich, E.M., S.I. Yeliseyev, V.V. Serov, and V.V. Lavrent'yev (0). Control and power supply unit for pulsed solid-state lasers. Sb 5, 63-64. (RZhRadiot, 10/78, 10Ye447)

157. Kutsarov, S.I., and S.I. Mitev (NS). Device for improving the precision of power supply sources for lasers. PTE, no. 5, 1978, 178-179.

158. Mikhaylov, N.I. (NS). Synthesis of circuits for shaping nonsymmetric current pulses with a steep leading edge in a pulsed gas discharge lamp. Bolgarskiy fizicheskiy zhurnal, no. 2, 1977, 212-218. (RZhF, 10/78, 10D1137)

159. Ryzhov, V.V., and A.G. Yastremskiy (0). E-beam excitation of gas mixtures. Sb 2, 120-121. (RZhRadiot, 10/78, 10Ye462)

160. Vinokurov, N.I., S.P. Leyba, and Yu.F. Fomenko (34). Study on the effect of an illuminator on the electric and optical characteristics of flash-lamps. Tr 3, 84-87. (RZhF, 10/78, 10D1150)

3. Deflectors

161. Fomchenkov, V.M. (0). Method for deflecting an optical beam. Author's certificate USSR, no. 565273, issued 7 October 1977. (RZhRadiot, 10/78, 10Ye269)

162. Kondilenko, I.I., P.A. Korotkov, B.N. Grib, and G.S. Felinskiy (51). Electrooptical deflection of light beams. Sb 3, 45-59.

163. Kryzhanovskiy, V.I., V.A. Parfenov, V.A. Serebryakov, and A.A. Chertkov (7). Electrooptical deflector using a KDP crystal. OMP, no. 10, 1978, 26-29.

164. Magdich, L.N., M.I. Mit'kin, V.N. Sasov, and P.I. Shnitser (0). Two-coordinate acoustooptical deflector providing 32x32 position resolution. OiS, v. 45, no. 4, 1978, 827-828.

165. Petrov, M.P., G.A. Smolenskiy, V.V. Lemanov, A.A. Uvarov, A.N. Anisimov, N.N. Kovalev, Yu.M. Sosov, N.K. Yushin, A.S. Fatov, and S.G. Yegorov (0). Acoustooptic deflector of laser radiation. Sb 6, 21-25. (RZhRadiot, 10/78, 10Ye270)

4. Filters

166. Dadeshidze, V.V., D.F. Dzhmukhadze, N.A. Tsnobiladze, and D.K. Ivanov (39). Electrically-controlled tunable light filter. Tr 4, 150-156. (RZhRadiot, 10/78, 10Ye472)

167. Dadeshidze, V.V., N.A. Tsnobiladze, and D.F. Dzhmukhadze (39). Polymer interference-polarization light filters. Tr 4, 300-309. (RZhRadiot, 10/78, 10Ye471)

168. Voloshinov, V.B., V.N. Parygin, and V.B. Khaptanov (2). Tunable acousto-optical lithium niobate crystal filter. VMU, no. 5, 1978, 7-12.

5. Detectors

169. Druchevskiy, V.A., V.V. Zubkov, A.A. Krasnov, N.V. Malysheva, I.N. Matveyev, B.V. Poletayev, and N.D. Ustinov (0). Optical radiation detector for phased measurement systems. PTE, no. 5, 1978, 196-198.

170. Igras, E., M. Malachowski, and J. Rybinski (NS). Detector of high-power laser radiation. Patent Poland, no. 88001, issued 15 December 1976. (RZhRadiot, 9/78, 9Ye249)

171. Katrich, A.B., and V.M. Kuz'michev (34). Radiation detectors based on the Nernst-Ettingshausen effect. KE, no. 9, 1978, 1949-1954.

172. Koltok, Yu.V., V.M. Kuz'michev, Yu.M. Latynin, and O.F. Manita (34). Pyromagnetic laser radiation detector. Sb 3, 82-85.

173. Konstantinov, V.A., O.A. Mednikov, T.A. Fratini, and L.A. Khomutova (0). Pulsed laser radiation simulators. PTE, no. 5, 1978, 211-212.

174. Kravchenko, A.B., A.F. Plotnikov, and V.E. Shubin (1). Feasibility of developing a pulsed avalanche photodetector with stable internal amplification using an MOS structure. KE, no. 9, 1978, 1918-1923.

175. Olszewska, M., M. Paduch, J. Piotrowska, and L. Pokora (NS). Semiconductor detectors with an Au-CdTe-Al structure for recording nanosecond pulses in the visible, ultraviolet and x-ray regions. BWAT, no. 5, 1978, 177-183. (RZhF, 10/78, 10D1412)

176. Voronin, E.S., V.S. Solomatin, and V.V. Shuvalov (2). New method for recording infrared radiation. Priroda, no. 9, 1978, 26-33.

6. Modulators

177. Aksenov, Ye.T., S.L. Galkin, I.A. Yesepkina, V.M. Nikolayev, L.N. Pakhomov, and V.Yu. Petrun'kin (0). Acoustooptic device for longitudinal mode-locking in lasers. Sb 7, 53-55. (RZhF, 10/78, 10D1110)

178. Balakshiy, V.I., A.I. Nagayev, V.N. Parygin, and A.M. Suslov (2). Amplitude modulation of light during diffraction in $Ba_2NaNb_5O_{15}$ crystal domains. KE, no. 9, 1978, 1904-1910.

179. Balenko, V.G., V.Z. Kagna, and V.M. Podgayetskiy (0). Controlled phototropic switch with increased accuracy in single-pulse ruby laser synchronization. PTE, no. 5, 1978, 208-209.

180. Belov, V.V., Ye.G. Katyshev, V.M. Kozenkov, L.A. Afanas'yeva, and V.A. Barachevskiy (0). Organic electrochemical devices for modulating a luminous flux. Sb 8, 120-124. (RZhF, 9/78, 9D788)

181. Czaus, K. (NS). Method and circuit for supplying a voltage signal from an electric sensor to a synchronization circuit, specifically for a pulsed laser with mechanical Q-switching. Patent Poland, no. 94743, issued 15 November 1977. (RZhRadiot, 10/78, 10Ye475)

182. FEK-37 photoelement. KE, no. 10, 1978, 2303.

183. Goncharov, V.N. (90). Optimization of wideband microwave light modulator parameters in a circular waveguide. Sb 3, 104-111.

184. Goncharov, V.N. (90). Influence of light beam parameters on the modulation factor of a circular waveguide microwave light modulator. Sb 3, 111-116.

185. Gracheva, G.G., E.G. Zaid, I.N. Kompanets, Ye.A. Kotyrev, A.G. Sobolev, and V.A. Shatov (0). One-dimensional spatial modulator of light based on lanthanum-doped lead zirconate-titanate ceramic. Sb 9, 278-281. (RZhRadiot, 9/78, 9Ye149)

186. Ilas, P. (NS). Waveguide modulator. Patent GDR, no.126497, issued 20 July 1977. (RZhRadiot, 9/78, 9Ye150)

187. Kovalev, A.A., and L.V. Syt'ko (0). Modulation of radiation by a nematic liquid crystal domain structure. Sb 10, 107-123. (RZhRadiot, 9/78, 9Ye153)

188. Kuzovkova, T.A. (7). Electrooptic modulator with small reactive losses. OMP, no. 9, 1978, 71-72.

189. Logginov, A.S., A.V. Semyanistyy, V.Ye. Solov'yev, and Yu.F. Yul'berdin (2). The problem of optimal conditions for pulse-code modulation of injection laser radiation. KE, no. 9, 1978, 2060-2064.

190. Manushevich, G.N., L.M. Panasyuk, and V.N. Popa (151). Kinetics of image formation in "Fototitus" space-time light modulators. FTP, no. 9, 1978, 1670-1673.

191. Papernyy, S.B., V.A. Serebryakov, and V.Ye. Yashin (0). Formation of smooth transverse distribution of light beam intensity by means of a phase-shifting plate. KE, no. 9, 1978, 2059-2060.

192. Petrov, M.P., A.V. Khomenko, and N.N. Kovalev (4). Resolution of space-time modulators based on electrooptical crystals. Sb 3, 93-95.

193. Popov, S., and M. Miteva (NS). Magnetooptic modulator of light. Godishnik na Visshite uchebni zavedeniya. Tekhnichna fizika, no. 2, 1974(1977), 107-114. (RZhRadiot, 9/78, 9Ye151)

194. Popov, S., E. Smirnov, and N. Milinevski (NS). Ultrasonic Bragg modulator of light. Godishnik na Visshite uchebni zavedeniya. Tekhnichna fizika, no. 2, 1974(1977), 115-120. (RZhRadiot, 10/78, 10Ye256)

195. Vedlin, B., S. Trost, M. Knezevic, J. Zakelj, and C. Brajnik (NS). Laser Q-switches. Elektrotehnicki vestnik, no.5, 1977, 298-302. (RZhRadiot, 10/78, 10Ye257)

F. NONLINEAR OPTICS

1. Frequency Conversion

196. Abramski, K.M. (NS). An inverted Bennet hole in a laser with an external absorption cell. KE, no. 10, 1978, 2289-2290.

197. Atsagortsyan, A.Z., and I.A. Nagibarova (0). Cooperative frequency multiplication by means of a dissipative subsystem. DAN B, no. 3, 1978, 223-225. (RZhF, 10/78, 10D954)

198. Khapalyuk, A.P., S.V. Protsko, and A.D. Titov (87). Inverse problem for harmonic generation in nonlinear media. TR 5, 39-43. (RZhF, 10/78, 10D956)

199. Krochik, G.M., and Yu.G. Khronopulo (0). Feasibility of efficient frequency conversion in active media. KE, no. 9, 1978, 2065-2067.

200. Liborts, G.G., and S.Yu. Stefanovich (0). Second harmonic generation in lanthanum-doped lead zirconate-titanate ceramic. Sb 11, 199-207. (RZhRadiot, 9/78, 9Ye144)

201. Nikulin, N.G. (10). Third harmonic generation near two-photon resonance in gas. KE, no. 9, 1978, 1997-2003.

202. Perinova, V. and J. Perina (NS). Master equation approach to second harmonic and subharmonic generation. Czechoslovak Journal of Physics, v. B28, no. 3, 1978, 306-324. (RZhF, 10/78, 10D955)

203. Rozanov, N.N. (0). Frequency constraints in internal modulation of laser radiation. OiS, v. 45, no. 4, 1978, 751-757.

204. Taranenko, V.B. (5). Research and development of holographic devices for selecting and tuning stimulated emission frequency. Institut fiziki AN UkrSSR. Dissertation, 1977, 21 p. (KLDV, 10/78, 23724)

205. Vorobeychikov, E.S., V.N. Parygin, and L.N. Popov (2,47). Analysis of physical features of gas laser behavior in the nonsynchronous frequency modulation regime. IVUZ Fiz, no. 9, 1978, 28-32.

206. Voronin, E.S., V.S. Solomatin, and V.V. Shuvalov (2). Two-stage IR radiation conversion. KE, no. 9, 1978, 2031-2032.

2. Parametric Processes

207. Andreyev, R.B., V.D. Volosov, and V.N. Krylov (0). Parametric generation of high-power nanosecond pulses in the 0.74-1.85μ range. ZhTF P, no. 5, 1978, 256-258. (RZhF, 9/78, 9D910)

208. Lebedev, V.V., and G.M. Barykinskiy (10). Angular and spectral characteristics of parametric conversion of thermal radiation using a lithium iodate crystal. KE, no. 10, 1978, 2174-2178.

209. Pershin, S.M. (2). High-amplification parametric optical systems and their application. Moskovskiy GU. Dissertation, 1977, 16 p. (KLDV, 9/78, 21118)

3. Stimulated Scattering

a. Raman

210. Dzhotyan, G.P., and Yu.Ye. D'yakov (0). Diffraction frequency shift of Stokes radiation. OiS, v.45, no. 4, 1978, 828-830.

211. Karagodova, T.Ya., and M.A. Kovner (0). Dynamic Stark effect on the parameters of stimulated Raman scattering in a permanent magnetic field. Sb 4, 3-9. (RZhF, 9/78, 9D907)

212. Polivanov, Yu.N. (1). Raman scattering by polaritons. UFN, v. 126, no. 2, 1978, 185-232.

213. Sinichkin, Yu.P. (0). Raman backscatter. Sb 4, 99-118. (RZhF, 9/78, 9D908)

b. Brillouin

214. Yerokhin, A.I., N.V. Morachevksiy, F.S. Fayzullov, and A.K. Shmelev (1). Stimulated Brillouin scattering in a magnetic field. KSpF, no. 3, 1978, 35-39. (RZhF, 10/78, 10D948)

c. Miscellaneous Scattering

215. Bel'dyugin, I.M., and Ye.M. Zemskov (0). Effect of pumping field variation on the form of the field of a signal being amplified during stimulated scattering. KE, no. 9, 1978, 2055-2058.

4. Self-focusing

216. Yerokhin, N.S., S.S. Moiseyev, and V.Ye. Novikov (82). Self-focusing of wave beams in a nonlinear inhomogeneous medium. ZhTF, no. 9, 1978, 1769-1773.

5. Acoustic Interaction

217. Posudin, Yu.I., and V.G. Grits (0). Light diffraction by surface acoustic waves. IVUZ Radioelektr, no. 9, 1978, 93-95.

218. Rudenko, O.V. (2). Acoustics of intensive perturbation: nonlinear waves, physical effects and applications. Priroda, no. 9, 1978, 34-43.

219. Turyanitsa, I.D., B.M. Koperles, V.V. Khiminets, V.V. Tsitrovskiy, and Ya.P. Kutsenko (0). Chalcogenide glass: prospective acoustooptic material. Sb 1, 176-179. (RZhRadiot, 10/78, 10Ye482)

6. General Theory

220. Akhmanov, S.A. (2). Nonlinear optics: new results and problems. Priroda, no. 9, 1978, 15-25.

221. Badziak, J., and J. Owsik (NS). Experimental studies of the amplification of a laser pulse in nonlinear multicomponent systems. BWAT, no. 4, 1978, 105-114. (RZhRadiot, 10/78, 10Ye224)

222. Bergmann, J., K. Kneipp, and H.E. Ponath (NS). Raman-induced Kerr effect with elliptical polarization in optically active and anisotropic crystals. Physica status solidi, v. B86, no. 1, 1978, 215-223. (RZhF, 10/78, 10D799)

223. Davydov, B.L., V.F. Zolin, and L.G. Koreneva (0). Organic materials with nonlinear optical properties. RiE, no. 9, 1978, 1987-1988.

224. Gruyev, D.I. (161). The effect of relaxation processes on coherent interaction of radiation with a two-level medium. KE, no. 9, 1978, 1990-1996.

225. Kielich, S., N.L. Manakov, and V.D. Ovsyannikov (0). Nonlinear and magnetoelectric susceptibilities and laser light intensity dependent Faraday effect in atomic systems. Acta physica polonica, v. A53, no. 5, 1978, 737-746. (RZhRadiot, 10/78, 10Ye570)

226. Kolokolov, A.A., and A.I. Sukov (174). Beam reflection from a nonlinear medium. IVUZ Radiofiz, no. 10, 1978, 1459-1466.

227. Kurbatov, A.A., and T.Ya. Popova (0). Optical activity of a light-induced nonlinearly absorbing medium. OiS, v. 45, no. 4, 1978, 758-765.

228. Pogosyan, P.S., and V.G. Simonyan (0). Nonlinear scattering of laser radiation in ruby crystals. DAN Arm, no. 5, 1977, 284-288. (RZhF, 10/78, 10D952)

229. Zon, B.A., and M.A. Preobrazhenskiy (137). Fine structure of hydrogen atom multiphoton excitation spectra. KE, no. 9, 1978, 1962-1968.

G. SPECTROSCOPY OF LASER MATERIALS

230. Alekseyeva, I.P., A.V. Dmitryuk, G.O. Karapetyan, and N.T. Timofeyev (0). Cross-relaxation quenching of $Tb^{3+}(^5D_3)$ luminescence in glass. ZhPS, v. 29, no. 4, 1978, 627-632.

231. Grinchenko, B.I., and L.V. Gurvich (0). Radiation spectra of dense mixtures of noble gases with deuterium in the near ultraviolet under excitation by a beam of fast electrons. Sb 2, 125-127. (RZhRadiot, 9/78, 9Ye42)

232. Malashkevich, G.Ye. (3). Study of the spectroscopy of laser media containing rare-earth ions. Institut fiziki AN BSSR. Dissertation, 1977, 13 p. (KLDV, 10/78, 23676)

233. Shevandin, V.S., A.V. Aristov, M.I. Snegov, and A.S. Cherkasov (0). Differences of highly excited states of rhodamine 6G formed during direct and multistage absorption of light quanta. OiS, v. 45, no. 3, 1978, 621-622.

234. Sirotinkin, S.P., A.N. Pokrovskiy, A.A. Yevdokimov, V.F. Papulovskiy, A.F. Solokha, and V.K. Batovrin (0). Some properties of lithium and neodymium disulfate. Sb 1, 136-138. (RZhF, 9/78, 9D948)

235. Yegorov, V.S., A.A. Pastor, and P.Yu. Serdobintsev (0). Using absorption with nanosecond time resolution to study the kinetics of excitation processes for atoms and molecules in a pulsed transverse discharge. Sb 2, 71-72. (RZhRadiot, 10/78, 10Ye88)

H. ULTRASHORT PULSE GENERATION

236. Boyko, G.A., V.S. Dneprovskiy, and V.S. Fokin (2). Emission of subnanosecond light pulses in CdS. KE, no. 10, 1978, 2148-2153.

237. Kuch'yanov, A.S., and V.D. Ugozhayev (10). Device for enhancing the efficiency of a saturating absorber during ultrashort light pulse generation. PTE, no. 5, 1978, 209-211.

238. Serkin, V.N. (98). Effect of an amplifying medium on the shaping of ultrashort pulses of light. NII yadernoy fiziki pri MGU. Dissertation, 1978, 18 p. (KLDV, 10/78, 23710)

239. Sirutkaytis, V., and E. Zhilinskas (0). Picosecond pulse generation in an Nd^{3+} glass laser operating in a pulsed regime. Sb 5, 48. (RZhRadiot, 10/78, 10Ye180)

J. CRYSTAL GROWING

240. Kireyeva, S.I., V.S. Konevskiy, L.A. Litvinov, J. Kvapil, Jos. Kvapil, and B. Perner (0). Influence of annealing at the temperature near the melting point on the properties of ruby single crystals grown by the Czochralski method. Czechoslovak Journal of Physics, v. B28, no. 5, 1978, 585-586. (RZhF, 10/78, 10D1441)

K. THEORETICAL ASPECTS OF ADVANCED LASERS

241. Il'inskiy, Yu.A. (2). The problem of the gamma laser. Priroda, no. 9, 1978, 49-53.

L. GENERAL LASER THEORY

242. Batenin, V.M., P.A. Vokhmin, and I.I. Klimovskiy (0). Effect of various elementary processes on the pulse parameters of self-limited transition lasers. Sb 2, 162-164. (RZhRadiot, 10/78, 10Ye11)

243. Biberman, L.M., A.I. Gleyzer, and G.A. Kobzev (0). Spectral shape of the superluminescence line of high-power resonator-free lasers. Sb 2, 145-147. (RZhRadiot, 10/78, 10Ye4)

244. Gerasimov, I.A., T.M. Nesterenko, and A.P. Khapalyuk (0). Radiation asymmetry of a laser with inhomogeneous active medium. ZhPS, v. 29, no. 3, 1978, 450-457.

245. Nedranets, Yu.I., V.I. Berezin, and V.V. Khalinin (0). Fluctuations of population inversion and laser radiation density. Sb 4, 144-148. (RZhF, 9/78, 9D927)

246. Reshetnyak, S.A., and L.A. Shelepin (0). Kinetic processes in lasers. ZhPS, v. 29, no. 3, 1978, 424-431.

247. Smirnova, T.A., A.I. Stetsenko, N.T. Cherpak, Ya.L. Shamfarov, G.G. Aseyev, and M.I. Musatov (84). Microwave amplification in active rods with varying paramagnetic ion concentrations. Sb 3, 95-99.

II. LASER APPLICATIONS

A. BIOLOGICAL EFFECTS

248. Fadeyev, V.V. (2). Remote laser probing of photosynthesizing organisms. KE, no. 10, 1978, 2221-2226.

249. Kononenko, A.A., B.N. Korvatovskiy, V.Z. Pashchenko, A.B. Rubin, L.B. Rubin, and V.B. Tusov (2). Investigation on the picosecond kinetics of fluorescence of chromatophores and reaction centers from Rhodopseudomonas sphaeroides in the 295-80 K temperature range. DAN SSSR, v. 242, no. 6, 1978, 1421-1424.

250. Orayevskiy, A.N., and P.G. Pleshanov (1). Selective photochemical mechanism of laser biological action. KE, no. 10, 1978, 2243-2251.

251. Pashchenko, V.Z., and L.B. Rubin (2). Laser spectroscopy of primary energy transformation during photosynthesis. KE, no. 10, 1978, 2196-2205.

252. Rubin, L.B., and V.Z. Pashchenko (2). Picosecond spectroscopy of primary photosynthesis processes. Priroda, no. 9, 1978, 44-48.

253. Shadrikov, O.A., S.I. Kadoshnikov, L.N. Chermnykh, Yu.M. Stolovitskiy, and V.B. Yevstigiyeyev (0). Growing plants under laser exposure. EOM, no. 5, 1978, 70-71.

B. COMMUNICATIONS SYSTEMS

254. Andrushko, L.M., V.V. Grigor'yants, K.P. Naumenko, and T.V. Babkina (326). Analysis of inhomogeneous multimode dielectric waveguides. KE, no. 9, 1978, 1955-1961.

255. Belanov, A.S., and Ye.M. Dianov (1). Mode damping in multimode three-layer fiber lightguides. KE, no. 9, 1978, 2046-2049.

256. Belov, A.V., M.M. Bubnov, A.N. Gur'yanov, G.G. Devyatykh, Ye.M. Dianov, A.M. Prokhorov, S.Ya. Rusanov, and A.S. Yushin (1,297). Extending glass fiber lightguides using a CO_2 laser. KE, no. 9, 1978, 2064-2065.

257. Borisov, E.V., and A.T. Serobabin (0). Reception of coded messages during the transmission of information over optical cables. Electrosvyaz', no. 10, 1978, 38-41.

258. Borisov, E.V. (0). Effect of cycle synchronization on the noise rejection of communications lines for different optical pulse shapes. IVUZ Radioelektr, no. 9, 1978, 103-106.

259. Borisov, E.V. (0). Reception of pulsed optical signals in communications channels with scattering. Radiotekhnika, no. 4, 1978, 55-59. (RZhRadiot, 10/78, 10Ye534)

260. Buergo Pruneda, R.M. (252). Transmitting three-dimensional information by a holographic system. Leningradskiy institut yadernoy fiziki AN SSSR. Dissertation, 1978, 19 p. (KLDV, 10/78, 23619)

261. Butylkin, V.S., and P.S. Fisher (15). Information input during frequency doubling of laser radiation in a lightguide containing an isotropic dielectric. Sb 3, 99-101.

262. Bychkov, S.I., K.Ye. Rumyantsev, and V.S. Firsov (0). Features of optical signal reception. IVUZ Radioelektr, no. 10, 1978, 110-113.

263. Chagulov, V.S. (39). Classification of lightguides. Tr 4, 207-213. (RZhF, 10/78, 10D1255)

264. Chagulov, V.S. (39). Refractive optical fiber consisting of polymer materials. Tr 4, 227-236. (RZhF, 10/78, 10D1269)

265. Dzhangobegov, R.P., and B.M. Chabakauri (39). Lightguide for transmitting laser light. Tr 4, 214-217. (RZhF, 10/78, 10D1266)

266. Gaprindashvili, Kh.I., V.A. Yurchenko, D.M. Nakaidze, and I.A. Myasnikov (39). Radiation properties of fibers in the infrared. Tr 4, 218-226. (RZhF, 10/78, 10D1257)

267. Godik, E.E., V.V. Grigor'yants, V.V. Dementiyenko, M.N. Zargar'yants, G.A. Ivanov, A.V. Kulymanov, A.V. Petrov, V.P. Sinis, V.P. Sosnin, and I.I. Taubkin (0). Possibility of producing fiber optics communications systems at 1.06 μ. RiE, no. 9, 1978, 2006-2007.

268. Gordon, G.I., and I.I. Teumin (0). Pulse propagation in a low-mode lightguide. Elektrosvyaz', no. 10, 1978, 13-16.

269. Grigor'yants, V.V., M.Ye. Zhabotinskiy, G.A. Ivanov, and Yu.K. Chamorovskiy (326). Effect of fiber lightguide length on determining light losses in it. KE, no. 9, 1978, 2052-2055.

270. Grigor'yeva, Ye.Ye., and A.T. Semenov (141). Waveguide image transmission in coherent light (survey). KE, no. 9. 1978, 1877-1895.

271. Kobzev, V.V., V.V. Komlyakov, and V.A. Rozhanskiy (0). Selecting the threshold in selective reception of optical pulses in space communications systems. Radiotekhnika, no. 4, 1978, 81-84. (RZhRadiot, 10/78, 10Ye535)

272. Korennaya, L.N., M.Z. Protasevich, and T.I. Shevchik (87). Reception of discrete phase-pulse modulation signals by near-optimal methods. Sb 3, 101-104.

273. Korotkov, A.N. (110). Optimum power distribution in coherent communications systems. Sb 12, 58-61. (RZhRadiot, 9/78, 9Ye221)

274. Kubicek, Z. (NS). Propagation of light over an optical fiber. Slaboproudy obzor, no. 6, 1978, 245-250. (RZhF, 10/78, 10D1263)

275. Livshits, M.G., and N.I. Turovskiy (87). Direct reception of optical radiation in fast-response digital communications systems. Sb 3, 89-92.

276. Nasibov, A.S., and Ye.S. Shemchuk (244). Using laser e-beam tubes in television projection. KE, no. 9, 1978, 1911-1917.

277. Prokhorov, A.M., A.A. Spikhal'skiy, V.A. Sychugov, and A.A. Khakimov (1). Polarization effects in corrugated optical waveguides. KE, no. 10, 1978, 2132-2137.

278. Saxl, L. (NS). Couplers for fiber lightguides. Author's certificate Czechoslovakia, no. 170098, issued 15 June 1977. (RZhRadiot, 10/78, 10Ye349)

279. Shapovalov, V.M., P.I. Markov, M.D. Khovanskikh, and L.P. Zyryanov (0). Elimination of coding ambiguity in analog-digital converter displacements in fiber optics. Pribory i sistemy upravleniya, no. 4, 1978, 31-33. (RZhRadiot, 9/78, 9Ye229)

280. Szalay, M. (NS). Fiberoptic systems in radio electronics. Finommechanika, mikrotechnika, no. 2, 1978, 38-44. (RZhRadiot, 9/78, 9Ye212)

281. Vard'ya, V.P., M.N. Dubrov, I.P. Korshunov, and R.F. Matveyev (0). Underground waveguide lines with periodic light beam correction. RiE, no. 10, 1978, 2069-2083.

282. Volyar, A.V., L.M. Kuchikyan, and P.I. Sidak (0). Effect of a dielectric lightguide signal on the polarization of the transmitted signal. UFZh, no. 4, 1978, 587-596. (RZhF, 9/78, 9D1169)

283. Yeliseyev, P.G., V.N. Lavrov, and Yu.M. Popov (1). Effect of injection laser operating conditions on the efficiency of its radiation coupling into a fiber lightguide. KE, no. 9, 1978, 2038-2041.

C. BEAM PROPAGATION

1. In the Atmosphere

284. Almayev, R.Kh., and L.P. Semenov (0). Pulsations, caused by a turbulence mechanism, in the parameters of radiation acting on a cloud medium. Sb 13, 161-163. (RZhGeofiz, 10/78, 10B99)

285. Baydalov, S.I. (0). Using lasers for studies of the upper atmosphere. Sb 14, 5-19. (RZhGeofiz, 10/78, 10A60)

286. Bisyarin, V.P., V.N. Pozhidayev, A.V. Sokolov, and A.I. Fatiyevskiy (0). Pulsed laser radiation action on a polydispersed water aerosol. RiE, no. 9, 1978, 1848-1853.

287. Danilov, O.B., and S.A. Tul'skiy (0). Study of the characteristics of electrical breakdown initiated by a laser spark path in the atmosphere. ZhTF, no. 10, 1978, 2040-2043.

288. Demchuk, M.I., V.P. Kuznetsov, and K.P. Utochkin (334). Measurement system for analyzing the statistical characteristics of optical signal propagation in the atmosphere. PTE, no. 5, 1978, 270.

289. Gordin, M.P. (15). Theoretical study of the passage of intense laser radiation through an aqueous aerosol. Institut radiotekhniki i elektroniki AN SSSR. Dissertation, 1977, 17 p. (KLDV, 10/78, 23628)

290. Lukin, I.P. (0). Light wave fluctuation in a scattering medium. Gaussian beam. IVUZ Fiz, no. 10, 1978, 158.

291. Zuyev, V.Ye., M.V. Kabanov, and Yu.A. Pkhalagov (0). Aerosol scattering of optical waves in the earth's atmosphere. Sb 13, 87-90. (RZhGeofiz, 10/78, 10B141)

292. Zuyev, V.Ye., G.M. Krekov, V.L. Mironov, I.E. Naats, V.V. Pokasov, and I.V. Samokhvalov (0). Using lasers to study the atmosphere. Sb 13, 101-103. (RZhGeofiz, 10/78, 10B100)

2. In Liquids

293. Fadeyev, V.V. (2). Lasers in oceanology. Priroda, no. 9, 1978, 54-59.

3. Theory

294. Arsayev, I.Ye., and V.I. Starokon' (140). Conversion of Gaussian beam parameters during passage through a cylindrical inhomogeneity. Tr 6, 109-117. (RZhRadiot, 9/78, 9Ye268)

295. Franc, F. (NS). Passage of an optical beam over an aspherical surface complying with the Fermat principle. Jemna mechanika a optika, no. 2, 1978, 34-36. (RZhF, 9/78, 9D1135)

D. COMPUTER TECHNOLOGY

296. Bazadze, M.A., R.Sh. Megrelishvili, and T.D. Ebralidze (39). Holographic recording of information with a high density. Tr 4, 143-146. (RZhF, 10/78, 10D1212)

297. Komarov, V.A., S.I. Soroka, A.A. Kozak, and P.D. Kuznetsov (0). Recording documentary information on thermoplastic carriers. Sb 15, 139-143. (RZhF, 9/78, 9D1123)

298. Melikyan, K.S. (0). Calculating the spherical aberration in a concentric objective. IAN Arm, no. 1, 1978, 29-33. (RZhF, 10/78, 10D1457)

299. Panasyuk, L.M. (0). Photothermoplastic recording using semiconductor-thermoplastic systems. Part 2. Kinetics in the formation and erasure of apparent images. Sb 15, 109-119. (RZhF, 9/78, 9D1126)

300. Panasyuk, L.M., N.A. Barba, S.V. Robu, and A.A. Forsh (0). Effect of ultraviolet irradiation on the recording of images in a thermoplastic layer. Sb 15, 119-123. (RZhF, 9/78, 9D1124)

301. Shcherbak, Yu.M., and V.I. Sagaydak (0). Acoustooptic deflector as part of a holographic memory. Sb 10, 54-72. (RZhRadiot, 9/78, 9Ye409)

302. Shvarts, K.K. (0). Photorefraction in lithium niobate crystals and the search for new electrooptic materials for recording optical information. Sb 8, 31-50. (RZhF, 9/78, 9D1211)

303. Voloshchenko, Yu.I., L.N. Deryugin, O.A. Kurdyumov, V.Ye. Sotin, V.T. Frolkin, and I.V. Cheremiskin (0). Thin-film variant of a laser logic element. IVUZ Radioelektr, no. 10, 1978, 114-118.

304. Vorob'yev, V.G., and L.M. Panasyuk (0). Photothermoplastic carriers based on inorganic semiconductors. Sb 8, 71-81. (RZhF, 9/78, 9D1125)

305. Vorozheykina, L.F., V.V. Mumladze, G.G. Khulordava, and I.D. Shatalin (39). Optical storage of information in alkali-halide crystals. Tr 4, 201-206. (RZhF, 10/78, 10D1214)

E. HOLOGRAPHY

306. Bazadze, M.A., R.Sh. Megrelishvili, and T.D. Ebralidze (39). Increasing the diffraction efficiency of computer-synthesized holograms. Tr 4, 147-149. (RZhF, 10/78, 10D1199)

307. Bespalov, V.I., A.A. Betin, and G.A. Pasmanik (0). Stimulated scattering and Raman conversions of spatially inhomogeneous optical beams. Sb 15, 59-71. (RZhRadiot, 9/78, 9Ye382)

308. Borshch, A.A., M.S. Brodin, V.I. Volkov, V.V. Ovchar, and D.T. Tarashchenko (0). Silicon carbide: a new material for dynamic holography. Sb 15, 54-58. (RZhF, 10/78, 10D1213)

309. Bryskin, V.Z., A.V. Groznyy, V.G. Sidorovich, and D.I. Stasel'ko (0). Study of the efficiency of optical beam conversion by dynamic phase holograms recorded in absorptive media. Sb 15, 84-86. (RZhF, 10/78, 10D1190)

310. Bukhenskiy, M.F. (0). Tenth All-Union Seminar on Coherent Optics and Holography, Minsk, 18-25 February 1978. KE, no. 9, 1978, 2068-2072.

311. Ganzherli, N.M., and V.I. Kochenov (0). Hologram recording on AsSe films using He-Ne laser radiation. Sb 6, 26-38. (RZhF, 10/78, 10D1204)

312. Grachev, A.I., A.A. Kukharskiy, I.A. Smirnov, and S.G. Shul'man (4). Amplitude-phase holograms in samarium monosulfide films. Sb 3, 85-89.

313. Hofmann, C. (NS). Role of the Fourier transform for optical images. Fortschritte der Physik, no. 12, 1977, 743-763. (RZhF, 10/78, 10D1230)

314. Kucharski, M. (NS). Reconstruction of holograms from salicylidene-aniline when the reading beam does not satisfy the Bragg conditions. Acta physica polonica, v. A53, no. 2, 1978, 357-359. (RZhF, 9/78, 9D1119)

315. Kulla, P. (NS). Holographic black and white television system. Rozhlasovy a televisni technika, no. 1, 1978, 21-25. (RZhRadiot, 10/78, 10Ye709)

316. Kvasnikov, Ye.D., V.M. Kozenkov, V.A. Barachevskiy, and L.A. Rakitina (0). Forming phase holograms by ultraviolet radiation in polyvinyl cynamate layers. Sb 8, 96-100. (RZhF, 9/78, 9D1118)

317. Leshchev, A.A., and V.G. Sidorovich (0). Calculating phase distortions during dynamic correction of wave fronts. Sb 15, 88-89. (RZhF, 9/78, 9D1107)

318. Markov, V.B., S.G. Odulov, and M.S. Soskin (0). Image amplification and processing during recording of holograms in lithium niobate crystals. Sb 8, 108-114. (RZhF, 9/78, 9D1112)

319. Mayorov, S.A., V.S. Ivanov, Yu.F. Romanov, E.V. Starodubtsev, and Ye.N. Ban'kovskaya (30). Reconstruction of transparent images from phase reflex Fourier holograms by noncoherent light sources. IVUZ Priboro, no. 9, 1978, 60-63.

320. Mumladze, V.V., A.A. Mikaberidze, N.V. Tsotskhalishvili, Z.V. Vardosanidze, and E.B. Tekayev (39). Holographic recording in dyed hydrosodalite single crystals. Tr 4, 194-200. (RZhF, 10/78, 10D1211)

321. Odulov, S.G., Ye.N. Sal'kova, L.G. Sukhoverkhova, N.M. Krolevets, G.S. Pekar', and M.K. Sheynkman (0). Dynamic holograms in cadmium sulfide crystals. Sb 15, 45-53. (RZhF, 9/78, 9D1116)

322. Ovechkis, Yu.N., and A.Kh. Shakirov (231). Off-stand recording of reflex holograms. ZhNiPFiK, no. 5, 1978, 370-372.

323. Ovechkis, Yu.N. (231). Depth of a three-dimensional scene transmitted by a holographic screen with aberrations. TKiT, no. 9, 1978, 65-67.

324. Peredereyeva, S.I., V.M. Kozenkov, and P.P. Kisilitsa (0). Photopolymers for holography. Sb 8, 51-71. (RZhF, 9/78, 9D1115)

325. Petrov, V.D. (462). High-speed chemico-photographic treatment of holograms under external polychromatic exposure conditions. ZhNiPFiK, no. 5, 1978, 376-378.

326. Plotnikov, A.F., A.N. Rodionov, V.N. Seleznev, A.A. Samokhvalov, and N.N. Loshkareva (0). Study of holographic recording of information on europium oxide films. Sb 8, 100-108. (RZhF, 9/78, 9D1121)

327. Runda, V. (NS). Computer synthesis of holograms. Jemna mechanika a optika, no. 5, 1978, 118-122. (RZhF, 10/78, 10D1194)

328. Samartsev, V.V., and Ye.I. Shtyrkov (0). Modulation effects in resonance dynamic echo holography. Sb 15, 100-109. (RZhF, 9/78, 9D1106)

329. Shmarev, Ye.K. (0). Controlled spatial filter using a photoplate. Sb 15, 143-149. (RZhF, 9/78, 9D1122)

330. Shtyrkov, Ye.I., and V.V. Samartsev (0). Dynamic holograms using superposition states of atoms. Sb 15, 90-100. (RZhF, 9/78, 9D1105)

331. Soskin, M.S. (0). Dynamic holography and conversion of laser beams. Sb 15, 3-21. (RZhF, 9/78, 9D1104)

332. Stepanov, S.I., A.A. Kamshilin, and M.P. Petrov (0). Holographic recording of images in birefringent electrooptic crystals. Sb 6, 4-21. (RZhF, 10/78, 1bD1210)

333. Sukhanov, V.I., Yu.V. Ashcheulov, and A.Ye. Petnikov (0). Hologram recording in lithium niobate crystals. Sb 15, 86-88. (RZhF, 10/78, 10D1196)

334. Tantsyura, L.Ya., and N.G. Kuvshinskiy (0). Sensitized oxidation of abietine acid in a polymer matrix. Sb 15, 132-139. (RZhF, 10/78, 10D1208)

335. Vagin, L.N., A.M. Filatov, S.P. Vorob'yev, and L.A. Zaborovskiy (7). The "Kvant-1" automatic device for scanning and converting holograms to photographic microforms of documents. OMP, no. 9, 1978, 29-32.

336. Vanin, V.A., B.L. Naumov, and N.G. Orlova (1). Imaging properties of a mirror hologram. TKiT, no. 9, 1978, 67-68.

337. Vinetskiy, V.L., M.S. Soskin, N.V. Kukhtarev, S.G. Odulov, and V.B. Markov (0). Holographic recording in electrooptic crystals. Part 1. Stationary characteristics. Sb 15, 21-38. (RZhF, 10/78, 10D1197)

338. Vinetskiy, V.L., M.S. Soskin, N.V. Kukhtarev, S.G. Odulov, and V.B. Markov (0). Holographic recording in electrooptic crystals. Part 2. Amplification of coherent optical beams. Sb 15, 38-45. (RZhF, 10/78, 10D1198)

339. Vlasenko, N.A., F.A. Nazarenkov, V.A. Sterligov, and V.A. Tyagay (0). Use of amorphous germanium monoxide films for hologram recording. ZhTF P, no. 17, 1978, 1037-1041.

340. Vorozheykina, L.F., V.V. Mumladze, and I.D. Shatalin (0). Holograms in irradiated potassium chloride crystals. ZhPS, v. 29, no. 3, 1978, 552-554.

341. Vorzobova, N.D., A.A. Leshchev, P.M. Semenov, V.G. Sidorovich, and D.I. Stasel'ko (0). Method for optimizing the recording conditions of three-dimensional holograms. OiS, v. 45, no. 4, 1978, 779-787.

342. Wendland, K.H. (NS). Improving the diffraction efficiency of Fourier holograms. Feingeraetetechnik, no. 1, 1978, 8-12. (RZhF, 10/78, 10D1188)

343. Zabolotnyy, M.A., N.G. Kuvshinskiy, and N.N. Kurochkina (0). Information properties of thermoplastic media. Sb 8, 85-96. (RZhF, 9/78, 9D1120)

344. Zel'dovich, B.Ya., and V.V. Shkunov (1). Quantum radiophysics. Recording and reconstructing the polarization state of an object wave by a three-dimensional hologram. Fizicheskiy institut AN SSSR. Preprint, no. 57, 1978, 41 p. (RZhRadiot, 9/78, 9Ye393)

F. LASER-INDUCED CHEMICAL REACTIONS

345. Antonov, V.S., I.N. Knyazev, V.S. Letokhov, V.M. Matyuk, V.G. Movshev, and V.K. Potapov. Observation of two-stage photoionization of the benzaldehyde molecule by laser radiation in a mass spectrometer. KhVE, no. 5, 1978, 476-478.

346. Bagratashvili, V.N., V.S. Dolzhnikov, V.S. Letokhov, and Ye.A. Ryabov (0). Isotopic-selective dissociation of CF_3I molecules at elevated pressure under the effect of pulsed CO_2 laser radiation. ZhTF P, no. 19, 1978, 1181-1186.

347. Baklanov, A.V., A.K. Petrov, and Yu.N. Molin (295). Investigation of multiphoton dissociation of C_2H_4FCI in a pulsed CO_2 laser field. DAN SSSR, v. 242, no. 3, 1978, 633-636.

348. Bekov, G.I., V.S. Letokhov, O.I. Matveyev, and V.I. Mishin (72). Detection of a long-lived autoionization state in the spectrum of the gadolinium ion. ZhETF P, v. 28, no. 5, 1978, 308-311.

349. Kas'yanov, V.A. (19). Criteria for optical breakdown of molecular gases. Tr 7, 35-37. (RZhF, 10/-8, 10D1083)

350. Knyazev, I.N., V.S. Letokhov, and V.G. Movshev (0). Selective laser detector of molecules. Sb 16, 48-51. (RZhRadiot, 9/78, 9Ye293)

351. Ostrovskiy, M.A., and I.B. Fedorovich (67). Photochemical transformations of the visual pigment: rhodopsin. KE, no. 10, 1978, 2263-2270.

352. Vasilenko, L.S., N.M. Dyuba, M.N. Skvortsov, and V.P. Chebotayev (0). Coherent radiation in time-spaced fields. ZhTF P, no. 5, 1978, 278-282. (RZhF, 9/78, 9D869)

353. Zon, B.A. (137). Resonant multiphoton ionization of atoms. ZhETF, v. 75, no. 3, 1978, 834-845.

G. MEASUREMENT OF LASER PARAMETERS

354. Abakumov, B.M., N.S. Kolobkov, G.I. Rukman, B.M. Stepanov, and Ye.B. Shelemin (0). Infrared-range time magnifier. IT, no. 10, 1978, 68-69.

355. Ablekov, V.K., and V.G. Marchenko (0). Angular radiation spectrum of a laser with a grating in the cavity and a periodic mode field distribution on the grating. ZhPS, v. 29, no. 4, 1978, 607-613.

356. Apollonov, V.V., F.V. Bunkin, V.Yu. Khomich, and S.A. Chetkin (1). Thermodeformation method for measuring the intensity distribution of a high-power laser beam. ZhTF P, no. 17, 1978, 1017-1020.

357. Aponin, G.I., A.A. Besshaposhnikov, and A.I. Zakharchenko (0). IR laser radiation field visualizer. PTE, no. 5, 1978, 213-214.

358. Basayev, A.B., I.P. Mazan'ko, M.I. Molchanov, S.M. Romanov, and N.G. Yaroshenko (0). Measurement of natural fluctuation source intensities in He-Ne lasers. RiE, no. 10, 1978, 2184-2188.

359. Berkovskiy, A.G., N.Ye. Bykovskiy, Yu.I. Gubanov, N.V. Gusev, N.V. Pletnev, Yu.V. Senatskiy, G.V. Sklizkov, and A.N. Sushenko (1). Using fast oscillography to study an Nd:glass subnanosecond pulse generator. Fizicheskiy institut AN SSSR. Preprint, no. 168, 1977, 14 p. (RZhF, 9/78, 9D1045)

360. Bertsev, V.V., M.O. Bulanin, and I.A. Popov (0). Study of the energy profile of pulsed IR radiation Gaussian beams. OiS, v. 45, no. 3, 1978, 622-623.

361. Bobrik, V.I., L.G. Vasil'yeva, A.A. Pomeranskiy, and A.K. Toropov (163). Errors in comparing laser wavelengths by dynamic band counting in dual-beam interferometers. Tr 2, 12-20. (RZhF, 10/78, 10D1393)

362. Bobrik, V.I., N.B. Kolinko, A.A. Mzhel'skiy, and E.I. Sadovskaya (163). Multibeam scanning Fabry-Perot interferometers with a displaced base line. Tr 2, 26-32. (RZhRadiot, 9/78, 9Ye286)

363. Brazovskiy, V.Ye., and V.N. Lisitsyn (159). Spatial structure of superradiance. KE, no. 10, 1978, 2293-2295.

364. Bryukhnevich, G.I., N.S. Vorob'yev, V.V. Korobkin, A.M. Prokhorov, B.M. Stepanov, and M.Ya. Shchelev (1). High-speed electrooptic converters for studying laser radiation with picosecond and femtosecond time resolution. Fizicheskiy institut AN SSSR. Preprint, no. 77, 1978, 23 p. (RZhF, 10/78, 10D1144)

365. Chebotayev, V.P. (10). Use of supernarrow resonances in spectroscopy and for stabilizing gas laser frequencies. KE, no. 9, 1978, 2004-2014.

366. Chechenina, Ye.P. (3). Study of the frequency, polarization and energy characteristics of regenerative laser amplifiers in a stationary regime. Institut fiziki AN BSSR. Dissertation, 1977, 14 p. (KLDV, 9/78, 21164)

367. Chernyavskiy, A.F., Yu.P. Makarov, and A.V. Potarocha (87). External discriminator for a laser frequency stabilization system. Tr 5, 88-89. (RZhF, 10/78, 10D1120)

368. Dvorkin, B.A., and A.A. Mizyukin (0). Electrooptic stabilization of high-power coherent radiation at 10.6 μ. Sb 17, 119-123. (RZhF, 10/78, 10D1118)

369. Feldner, E., and R. Orlamuender (NS). Losses in YAG lasers. Kristall und Technik, no. 3, 1978, 343-349. (RZhRadiot, 10/78, 10Ye172)

370. Gavrilov, V.N. (0). Instrument for measuring laser beam divergence. Author's certificate USSR, no. 516130, issued 22 November 1976. (RZhRadiot, 9/78, 9Ye270)

371. Gnatovskiy, A.V., N.G. Zubrilin, M.V. Nikolayev, A.P. Loginov, N.V. Medved', and M.T. Shpak (5). Transformation of light fields by means of stochastic coherent-optic filters. UFZh, no. 9, 1978, 1452-1457.

372. Gryaznov, M.I. Yu.M. Gryaznov, O.N. Kostev, and A.A. Chastov (0). Measuring the parameters of optical pulses by an integrated method. Sb 18, 114-118. (RZhF, 10/78, 10D1130)

373. Gusev, V.G., and B.N. Poyzner (0). Method for experimental study of a solid-state generator in the laboratory. IVUZ Fiz, no. 10, 1978, 159.

374. Gustyr', L.Ya., V.P. Demidov, V.N. Puchkov, and Yu.A. Fedorov (163). Instrument for monitoring linear and angular displacements of laser beams. Tr 2, 50-56. (RZhF, 10/78, 10D1450)

375. Kabashnikov, V.P., V.N. Snopko, and O.V. Tsaryuk (0). Radiation polarization of a CO_2 laser with an anisotropic resonator. ZhPS, v. 29, no. 3, 1978, 436-441.

376. Kalinin, P.K. (0). Mockup of a semiautomatic instrument for measuring pulse energy and average power of optical radiation. Sb 18, 55-58. (RZhRadiot, 10/78, 10Ye500)

377. Kalinin, Yu.A., and Ye.I. Kuramin (0). The IMO-2-2 standard instrument for measuring the power of laser radiation. Sb 18, 44-48. (RZhRadiot, 10/78, 10Ye502)

378. Khomutova, L.A., V.I. Ivanov, N.G. Savinova, and T.A. Fratini (7). Method for operative determination of laser wavelength. OMP, no. 9, 1978, 76.

379. Klyukin, L.M., A.S. Sonin, and B.M. Stepanov (0). Instruments for displaying IR and microwave radiation in cholesteric liquid crystals. IT, no. 10, 1978, 63-66.

380. Kolosovskiy, O.A., N.A. Semenovskaya, V.S. Tkachenko, N.S. Fertik, and A.V. Chuprakov (0). System for stabilizing the frequency of a high-power laser by reference. PTE, no. 5, 1978, 206-207.

381. Koltok, Yu.V., V.M. Kuz'michev, Yu.M. Latynin, and I.A. Priz (0). Temperature dependence of the sensitivity of a lattice instrument for measuring laser radiation energy. Sb 19, 99-103. (RZhRadiot, 10/78, 10Ye501)

382. Kozlouska, D. (NS). Basic concepts of second order coherence and experimental determination of spatial coherence. Sbornik praci Pedagogicke fakulty v Ostrave, v. A-10, no. 42, 1975, 53-62. (RZhRadiot, 10/78, 10Ye140)

383. Kuzenkov, V.P., and Ye.F. Dudnik (0). Materials for sensing elements in piezooptic measuring converters. Sb 20, 36-40. (RZhRadiot, 10/78, 10Ye491)

384. Lisitsa, M.P., N.R. Kulish, and A.V. Stolyarenko (6). Method for measuring the energy of laser single pulses. Sb 3, 79-82.

385. Makowska, E., W. Spytkowski, and R. Wolski (NS). Study of the emission spectrum of an Ar^{1+} laser. Elektronika [Poland], no. 4, 1978, 153-155. (RZhRadiot, 10/78, 10Ye89)

386. Narczyk, W., and J. Zebrun (NS). System for automatic stabilization of the direction of a laser beam in space. Patent Poland, no. 88000, issued 15 January 1977. (RZhRadiot, 9/78, 9Ye241)

387. Odulov, S.G., Ye.N. Sal'kova, M.S. Soskin, and L.G. Sukhoverkhova (0). Using dynamic holography to remove distortions in laser beams directed through amplifiers. UFZh, no. 4, 1978, 562-567. (RZhF, 9/78, 9D1051)

388. Shepelev, A.V. (7). Calculating the temperature distribution and focal distance of thermooptic lenses in solid-state lasers. OMP, no. 10, 1978, 17-18.

389. Sodomka, L. (NS). Diode photometer for laser radiation. Jemna mechanika a optika, no. 4, 1978, 112. (RZhRadiot, 10/78, 10Ye507)

390. Telegin, G.I. (15). Experimental study of optical shifts in quantum frequency discriminators for pulsed optical pumping of Rb^{87} vapor. Institut radiotekhniki i elektroniki AN SSSR. Dissertation, 1977, 21 p. (KLDV, 9/78, 21146)

391. Yasinskiy, V.M. (3). Operating characteristics of photomultipliers during laser radiation recording. PTE, no. 5, 1978, 234-235.

392. Zakharchenya, B.P., Ye.I. Terukov, F.A. Chudnovskiy, and Z.I. Shteyngol'ts (0). Study of the spatial characteristics of pulsed laser radiation using phase transformational interference reversible reflector material. ZhTF P, no. 18, 1978, 1131.

393. Zubova, Ye.A., N.V. Pletnev, Yu.V. Senatskiy, and G.V. Sklizkov (1). Numerical modeling of the parameters of the wave front of a laser beam in the Hartmann method. Fizicheskiy institut AN SSSR. Preprint, no. 57, 1978, 24 p. (RZhF, 10/78, 10D1132)

H. LASER MEASUREMENT APPLICATIONS

1. Direct Measurement by Laser

394. Abramov, L.I. (0). Generating an aerosol for diagnostics of gas flows by a laser Doppler velocimeter. Sb 21, 158-163. (RZhMekh, 9/78, 9B1386)

395. Afon'kin, V.G., and S.A. Shestov (0). Instruments for opticophysical and physicochemical measurements. IT, no. 10, 1978, 77-80.

396. Ageyev, V.A. (3). Laser spectral analysis using ultrasound. Tr 8, 37-41. (RZhRadiot, 10/78, 10Ye625)

397. Aleksandrov, V.A., and A.A. Titov (0). Laser instrument for measuring small optical displacements. Sb 22, 45-51. (RZhRadiot, 10/78, 10Ye527)

398. Alkhimov, A.P., A.N. Papyrin, and A.L. Predein (0). Using optical display methods to study high-speed two-phase flows. Sb 23, 84-92. (RZhMekh, 10/78, 10B1049)

399. Anokhov, S.P., V.I. Kravchenko, S.V. Sidorov, and M.S. Soskin (5). Sensitivity of the method of opposed beams in laser intraresonator spectroscopy. Sb 3, 37-45.

400. Antonov, V.V., A.V. Voytsekhovskiy, G.Ye. Dunayevskiy, and A.S. Petrov (0). Study of a doped photoresistor in an interferometer tuned to the wavelength of the radiation being received. RiE, no. 10, 1978, 2189-2193.

401. Arkhipov, V.V. (7). Fast-scanning Fourier spectrometer with electrodynamic drive control. OMP, no. 10, 1978, 20-22.

402. Ashayev, V.K., A.D. Levin, and O.N. Mironov (141). Laser interferometer for studying shock waves generated by an explosion. ZhTF, no. 10, 1978, 2157-2163.

403. Aslanyan, L.S., A.F. Bunkin, and N.I. Koroteyev (0). Determining complex third-order hyperpolarizability of dye molecules by coherent ellipsometry. ZhTF P, no. 19, 1978, 1177-1181.

404. Badziak, J., and A. Patron (NS). Laser ring amplifier with a two-photon absorbent. Journal of Technical Physics [Poland], no. 1, 1978, 103-113. (RZhF, 10/78, 10D972)

405. Baranov, P.A., V.A. Buvnov, and A.A. Solov'yev (0). Using fiber lightguides in laser anemometers. Sb 21, 174-177. (RZhMekh, 10/78, 10B1193)

406. Barkov, L.M., and M.S. Zolotorev (79). Measuring the optical activity of bismuth vapors. ZhETF P, v. 29, no. 8, 1978, 544-548.

407. Belov, I.A. (0). Laser diagnostics of aerosol parameters. Sb 23, 100-107. (RZhMekh, 10/78, 10B1185)

408. Bezuglov, V.A. (0). Accuracy of the spectral analysis of the signal in a laser Doppler velocimeter. Sb 21, 106-112. (RZhMekh, 9/78, 9B1382)

409. Blazhenkov, V.V., A.N. Kirkin, S.F. Kozlov, L.P. Kotenko, A.M. Leontovich, G.I. Merzon, A.M. Mozharovskiy, and A.N. Chuzo (1). Automation of optical measurements in experiments with a pulsed laser. Fizicheskiy institut AN SSSR. Preprint, no. 69, 1978, 15 p. (RZhF, 9/78, 9D1305)

410. Blinovskaya, Ye.M. (0). Diagnosing detached turbulent flows by a laser Doppler velocimeter. Sb 21, 135-137. (RZhMekh, 9/78, 9B1203)

411. Borisov, A.A., V.T. Galochkin, S.A. Mulenko, A.N. Orayevskiy, N.F. Starodubtsev, and A.F. Suchkov (1,67). Study of the CH_3HCO decomposition reaction using intraresonator laser spectroscopy. KE, no. 9, 1978, 1933-1939.

412. Borovoy, V.Ya. (0). The "laser knife" method for diagnostics of two-phase spatial flows. Sb 23, 93-99. (RZhMekh, 10/78, 10B1184)

413. Brysov, O.P. (0). Using a laser Doppler velocimeter to study the flow in a turbulent wake behind objects. Sb 21, 127-134. (RZhMekh, 9/78, 9B1202)

414. Buyko, L.D., V.M. Koleshko, V.A. Rudenkova, and V.A. Shulakov (0). Holographic monitoring methods at different stages in the manufacture of integrated circuits. Sb 10, 205-215. (RZhRadiot, 9/78, 9Ye410)

415. Danileyko, M.V., and A.P. Nedavniy (5). Resonance phenomena in ring lasers with nonlinear absorption. Part 2. Use of nonlinear resonances in quantum electronics and laser spectroscopy. Sb 3, 3-23.

416. Derzhitskaya, V.I., M.L. Petukh, and A.A. Yankovskiy (3). Determining zinc content in brass by means of laser spectral analysis. Tr 8, 20-23. (RZhRadiot, 9/78, 9Ye375)

417. Drobot, N.M., and L.A. German (265). The aluminum-oxygen bond according to data from infrared spectroscopy and laser Raman spectroscopy. Deposit at VINITI, no. 1020-78, 24 March 1978, pp 84-91. (RZhF, 9/78, 9D434)

418. Dubnishchev, Yu.N. (0). Optical systems for reproducing and processing information in laser diagnostics of flows. Sb 21, 164-168. (RZhMekh, 10/78, 10B1050)

419. Filatov, A.N. (0). Using a laser Doppler velocimeter for diagnostics of turbulent flows. Sb 21, 113-120. (RZhMekh, 9/78, 9B1200)

420. Gerasimenko, A.N. (0). Some integrated concepts of space-time functions in problems of seismic holography. Sb 24, 47-53. (RZhGeofiz, 10/78, 10D61)

421. Gomenyuk, A.S., V.P. Zharov, and V.S. Letokhov (0). Some modifications of optoacoustic molecule detectors. Sb 16, 78-82. (RZhF, 9/78, 9D1070)

422. Ishchenko, Ye.F., and G.S. Ramazanova (19). Nonreciprocity of opposed waves in an optical ring resonator containing a medium with square-law transverse inhomogeneity. Tr 7, 45-49. (RZhRadiot, 10/78, 10Ye275)

423. Ivanov, A.P., I.I. Kalinin, A.I. Kolesnik, and P.P. Bondarenko (0). Characteristics of water attenuation and absorption indices measurement by a pulse sounding method. ZhPS, v. 29, no. 4, 1978, 710-716.

424. Ivashechkina, M.A., and T.P. Mikhaylova (163). Multibeam scanning Fabry-Perot interferometer with variable spacing. Tr 2, 38-43. (RZhF, 10/78, 10D1396)

425. Kapshin, Yu.S., V.V. Klyubin, V.A. Noskin, Ya.M. Otchik, and N.M. Reynov (252). System for analyzing the spectra of an optical shift in real time. ZhTF, no. 10, 1978, 2175-2180.

426. Kharchenko, V.N., and A.V. Tolkachev (0). Studying hypersonic gas flows by a laser Doppler velocimeter. Sb 21, 81-85. (RZhMekh, 9/78, 9B1391)

427. Khodan, I.V., and M.M. Cherepovitskiy (0). Digital tracking system using a laser Doppler velocimeter to study slow flows. Sb 21, 169-173. (RZhMekh, 9/78, 9B1381)

428. Klimkin, V.F., and A.G. Ponomarenko (193). Using an optical interferometer to study electric breakdown of liquids. Institut teoreticheskoy i prikladnoy mekhaniki SOAN. Preprint, no. 4, 1978, 22 p. (RZhMekh, 10/78, 10B368)

429. Komar, V.G. (231). Holographic motion picture systems combined with stereoscopic and conventional motion picture systems. TKiT, no. 10, 1978, 3-12.

430. Korniyenko, L.S., and V.B. Shteynshleyger (0). Quantum amplifiers and their use in space research. UFN, v. 126, no. 2, 1978, 287-309.

431. Kozlovskiy, V.I., A.S. Nasibov, and A.N. Pechenov (1). Thermal operating regime of a laser cathode-ray tube screen. Fizicheskiy institut AN SSSR. Preprint, no. 24, 1978, 35 p. (RZhF, 9/78, 9D1097)

432. Kozulin, A.T., A.V. Gogolev, V.I. Karmanov, and S.N. Mikov (0). Phenomenological study of spectral evidence of intermolecular interaction. Part 4. Trihalogen antimony complexes with hydrocarbons. Deposit at VINITI, no. 1656-78, 23 May 1978, 12 p. (RZhF, 9/78, 9D386)

433. Kristallov, A.R., L.A. Mel'nikov, and V.A. Sedel'nikov (0). Possibility for determining the parameters of interatomic collisions. Sb 4, 129-135. (RZhF, 10/78, 10D1154)

434. Kulesh, V.P. (0). Tuning and monitoring a laser Doppler velocimeter optical system by an interference field interval. Sb 21, 151-157. (RZhMekh, 9/78, 9B1387)

435. Lebedev, Ye.I. (0). Spectral instruments manufactured by the optical industry of the USSR. Sb 16, 67-72. (RZhRadiot, 10/78, 10Ye505)

436. Lekhtsiyer, Ye.N. (0). Holographic microscopy in measuring engineering. IT, no. 9, 1978, 22-25.

437. Loyko, V.A., M.I. Shor, P.B. Boyko, L.I. Batlan, and E.I. Starobina (0). Optical properties of matte photographic paper. IAN B, no. 2, 1978, 56-62. (RZhF, 9/78, 9D1203)

438. Manakov, N.L., and V.D. Ovsyannikov (137). Stark effect at hyperfine structure sublevels and splitting of the $n^2S_{1/2}$ state of alkaline atoms in a nonresonant light field. ZhETF, v. 75, no. 3, 1978, 803-815.

439. Manoshkin, Yu.V. (0). Liquid acoustooptical device for laser Doppler velocimeter studies. Sb 21, 138-144. (RZhMekh, 9/78, 9B1385)

440. Mashinskiy, E.I. (0). Analysis of the errors of a laser interferometer used in a pressure seismic receiver. Sb 25, 36-43.

441. Matveyev, O.I., N.B. Zorov, and Yu.Ya. Kuzyakov (2). Comparison of laser spectroscopy methods in detection of individual atoms. VMU Khim, no. 5, 1978, 537-542.

442. Nagornaya, N.I., and A.N. Morgunov (0). Variation in the frequency of a laser Doppler velocimeter signal, from its frequency shift through an automatic control filter channel. Sb 26, 90-98. (RZhRadiot, 9/78, 9A171)

443. Nepokoychitskiy, A.G., G.V. Tukmachev, and P.A. Skiba (3). Monitoring metal coatings on dielectric substrates. Tr 8, 24-26. (RZhRadiot, 10/78, 10Ye613)

444. Nikitin, V.Ye. (0). Using a laser Doppler velocimeter to study the aerodynamic characteristics of a subsonic flow. Sb 21, 53-57. (RZhMekh, 9/78, 9B1390)

445. Nutrenko, O.I., and A.A. Yankovskiy (3). Comparison of spectral analysis methods using laser and contact-spark methods for test dosimetry. Tr 8, 14-17. (RZhRadiot, 9/78, 9Ye336)

446. Orlov, A.A. (0). Laser interferometry of gas flows. Sb 23, 108-111. (RZhMekh, 10/78, 10B1183)

447. Ostrovskiy, Yu.I., and V.S. Chashchin (0). Holographic Fourier spectrometer. ZhTF P, no. 18, 1978, 1076-1079.

448. Papyrin, A.N., and R.I. Soloukhin (0). Developing methods for laser Doppler measurements of velocity with direct spectral analysis. Sb 23, 3-73. (RZhMekh, 9/78, 9B1380)

449. Petukh, M.L., and A.A. Yankovskiy (3). Some applications of the "Korall-1" instrument for spectral analysis. Tr 8, 4-7. (RZhRadiot, 9/78, 9Ye341)

450. Petukh, M.L., V.D. Satsunkevich, and A.A. Yankovskiy (3). Microdosimetry of matter for spectral analysis. Tr 8, 8-10. (RZhRadiot, 9/78, 9Ye342)

451. Pilipovich, V.A., and Ye.K. Chekhovich (0). Holographic methods for monitoring photo templates. Sb 10, 216-221. (RZhRadiot, 9/78, 9Ye417)

452. Pomeranskiy, A.A., and Yu.F. Tomyashevskiy (163). Forming a one-dimensional interference pattern in a Fabry-Perot interferometer. Tr 2, 57-60. (RZhF, 10/78, 10D1392)

453. Pomeranskiy, A.A., and Yu.F. Tomyashevskiy (163). Forming a one-dimensional interference pattern in a Fabry-Perot interferometer. Tr 2, 57-60. (RZhF, 10/78, 10D1392)

454. Priyezzhev, A.V., and Yu.M. Romanovskiy (2). Laser Doppler spectroscopy and its application in biology. KE, no. 10, 1978, 2237-2242.

455. Prok, A. (NS). Device for producing electrooptical surfaces, specifically plane or conical, by means of a split laser beam, as well as producing optical straight lines. Author's certificate Czechoslovakia, no. 169008, issued 15 May 1977. (RZhRadiot, 9/78, 9Ye372)

456. Proshin, V.A., and V.A. Domyshev (0). System for studying dynamic magnetostriction characteristics of materials by heterodyne detection of laser radiation. Sb 27, 85-88. (RZhRadiot, 10/78, 10A572)

457. Puchkov, V.N., and A.K. Toropov (0). The SKL-2 laser radiation spectrometer. IT, no. 10, 1978, 66-68.

458. Richter, G. (NS). High-resolution spectroscopy within a Doppler line. Sitzungsberichte der Akademie der Wissenschaften der DDR. Mathematisch-Naturwissenschaftliche Technik, no. 14, 1977, 5-23. (RZhF, 9/78, 9D235)

459. Rinkevichyus, B.S., and V.L. Chudov (0). Study of boundary layers by means of a laser Doppler microscope. Sb 23, 74-79. (RZhMekh, 10/78, 10B1048)

460. Rinkevichyus, B.S., D.S. Terekhova, and A.V. Tolkachev (19). Experimental study of optical beam defocusing. Tr 7, 82-85. (RZhRadiot, 10/78, 10Ye495)

461. Roshkovan, G.L. (0). Frame sweep of laser beams in a system to transfer images from magnetic tape to motion picture film. TKiT, no. 10, 1978, 21-24.

462. Rozumnyuk, V.I., V.A. Svidro, and A.V. Khoroshilov (0). Generating an aerosol to study aerodynamic characteristics by a laser velocimeter. Sb 21, 145-150. (RZhMekh, 9/78, 9B1388)

463. Rudnitskiy, A.L. (0). Measuring pulsations of velocity by laser anemometers. Sb 21, 58-64. (RZhMekh, 9/78, 9B1384)

464. Sachkov, V.I., and B.M. Stepanov (0). Metrological standard for the national economy in the area of opticophysical measurements. IT, no. 9, 1978, 18-22.

465. Semenov, Yu.P., V.A. Belyakov, and A.B. Levin (0). Using a laser Doppler velocimeter to measure air velocity in a boundary layer during natural and mixed convection around a horizontal cylinder. Sb 21, 95-99. (RZhMekh, 9/78, 9B1383)

466. Shaposhnikov, Yu.N. (0). Use of graininess of laser radiation to study the vibrational characteristics of components. Problemy prochnosti, no. 10, 1978, 111-113.

467. Shcherbina, Yu.A. (0). Statistical properties of the signal of a laser Doppler velocimeter for measuring turbulence. Sb 21, 100-105. (RZhMekh, 9/78, 9B1199)

468. Shirokanov, A.D., and A.A. Yankovskiy (3). Time photodevelopment of absorption spectra during pulsed automation. Tr 8, 30-33. (RZhRadiot, 9/78, 9Ye335)

469. Skribanov, Ye.V. (0). Using a ring laser to monitor and control the accuracy of fabricating gear wheels. IT, no. 10, 1978, 38-39.

470. Smirnov, V.I. (0). Studying turbulent flows by laser Doppler anemometry. Sb 21, 121-126. (RZhMekh, 9/78, 9B1201)

471. Sobolev, V.S. (0). Laser Doppler systems for hydro- and aerodynamic experiments. Sb 21, 65-72. (RZhMekh, 9/78, 9B1198)

472. Sobolev, V.S., and N.F. Shmoylov (0). Errors in averaging random profiles of velocity by a laser Doppler velocimeter. Sb 21, 73-80. (RZhMekh, 9/78, 9B1392)

473. Suciu, P., R. Chisleag, and I. Cucurezeanu (NS). Obtaining thermal patterns of semiconductor instruments by means of holographic interferometry. Buletinul Institutului politehnic "Gheorghe Gheorghiu-Dej" Bucuresti. Ser. electrotehnica, no. 3, 1977, 11-16. (RZhF, 10/78, 10D1219)

474. Suslennikov, L.A. (0). Current status of methods for studying the spatial flow in turbines by means of laser Doppler velocimeters. Sb 21, 86-94. (RZhMekh, 9/78, 9B1389)

475. Tikhomirov, I.A., and M.G. Potapov (197). Study of ionization in a Mach disk by submillimeter laser interferometry. TVT, no. 5, 1978, 897-902.

476. Volan'skiy, P., V.F. Klimkin, and R.I. Soloukhin (0). Using laser methods for optical diagnostics of nonstationary processes. Sb 23, 80-83. (RZhMekh, 10/78, 10B1186)

477. Wrzesien, M., R. Janson, S. Rutkowski, and S. Segiet (NS). Circuit for regulating the position of an object displaced along a laser beam. Patent Poland, no. 90648, issued 30 June 1977. (RZhRadiot, 10/78, 10Ye605)

478. Yakovlev, V.A. (0). Holographic diagnostics of turbulent flows. Sb 23, 112-116. (RZhMekh, 9/78, 9B1403)

479. Yelinova, V.G., I.Ye. Drozd, and M.L. Petukh (3). Using the "Korall-1" laser instrument for analyzing miniature components consisting of bearing steel. Tr 8, 18-19. (RZhRadiot, 9/78, 9Ye321)

480. Zakharov, A.I., F.V. Rossomakho, L.N. Sikorskaya, A.A. Bednyagin, and F.Z. Emdin (0). The SM5 optical DME. Geodeziya i kartografiya, no. 9, 1978, 69-71.

481. Zharov, V.P. (24). Design and study of laser optoacoustic instruments for analyzing microimpurities in gases. Moskovskoye vysshey tekhnicheskoye uchilishche. Dissertation, 1977, 16 p. (KLDV, 9/78, 21672)

482. Zuyev, V.Ye., V.P. Lopasov, and L.N. Sinitsa (0). Spectra of atmospheric air and its components in the 1.06 μ region. OiS, v. 45, no. 3, 1978, 590-593.

483. Zvezdova, N.P. (0). Methods for optical recording of information in alkali-halide crystals. Sb 4, 135-144. (RZhF, 10/78, 10D782)

2. Laser-Excited Optical Effects

484. Ageyev, V.A., and A.V. Kolesnik (3). Localization of electric discharges by means of laser radiation. Tr 8, 34-36. (RZhRadiot, 10/78, 10Ye555)

485. Aristov, A.V., D.A. Kozlovskiy, D.I. Stasel'ko, and V.L. Strigun (0). Acoustooptical distortions induced by flashlamp radiation in etalon and aqueous dye solutions. OiS, v. 45, no. 4, 1978, 766-772.

486. Belyy, N.M., I.S. Gorban', V.A. Gubanov, G.I. Salivon, T.N. Sushkevich, and V.V. Frizel' (51). Raman light scattering in SnI_2 single crystals. FTT, no. 10, 1978, 3183-3185.

487. Beresnev, L.A., L.M. Blinov, and E.B. Sokolova (174). Kinetics of spontaneous polarization in a ferroelectric liquid crystal. ZhETF P, v. 28, no. 6, 1978, 340-344.

488. Borshch, V.V., A.V. Voytsekhovskiy, M.P. Lisitsa, P.Ye. Mozol', P.N. Tkachuk, and I.V. Fekeshgazi (6). Photoconductivity and the sensitization effect of zinc selenide crystals at high excitation levels. Sb 3, 65-69.

489. Brodin, M.S., A.V. Voytsekhovskiy, K.A. Dmitrenko, and T.P. Stetsenko (5,363). Two-photon absorption in single crystals of solid $(GaP)_x(ZnSe)_{1-x}$ solutions at a ruby laser frequency. UFZh, no. 10, 1978, 1737-1739

490. Danileyko, Yu.K., A.A. Manenkov, and A.V. Sidorin (1). Photoconductivity of germanium excited by pulsed CO_2 laser radiation. FTP, no. 10, 1978, 1938-1941.

491. Danishevskiy, A.M. (4). Spin orientation in zinc telluride under two-photon pumping. FTT, no. 10, 1978, 3150-3152.

492. Dragulinescu, D., C. Grigoriu, M. Maricaru, and T. Vascan (NS). Device for exciting a high-voltage pulse generator by means of a laser. Patent Romania, no. 64523, issued 15 August 1977. (RZhRadiot, 10/78, 10Ye544)

493. Eydner, K., and M.F. Vuks (0). Anisotropy in the polarizability of benzalaniline, azobenzene, and stilbene molecules. OiS, v. 45, no. 4, 1978, 697-700.

494. Golovashkin, A.I., O.M. Ivanenko, K.V. Mitsen, G.P. Motulevich, and A.A. Shubin (1). Temperature dependence of the critical optical pumping intensity of nonequilibrium superconductors. ZhETF, v. 75, no. 4, 1978, 1517-1519.

495. Goncharuk, I.N., V.Yu. Davydov, Ye.A. Ivanova, and E.V. Chisler (4). Second order vibrational spectra and phonon branch dispersion in an $NaNO_2$ ferroelectric. FTT, no. 10, 1978, 2901-2907.

496. Gudymenko, L.F., Ye.G. Gule, M.P. Lisitsa, and A.M. Yaremko (6). Phonon duplication of recombination radiation of an electron-hole fluid in ZnO. ZhETF P, v. 28, no. 8, 1978, 509-511.

497. Kachurin, G.A., Ye.V. Nidayev, and V.V. Konyshev (10). Comparative analysis of laser and thermal annealing of silicon implanted by small doses. FTP, no. 10, 1978, 2062-2065.

498. Karapetyan, R.V., and M.V. Fedorov (1). Spontaneous bremsstrahlung of an electron in an intense electromagnetic wave. Fizicheskiy institut AN SSSR. Preprint, no. 51, 1978, 20 p. (RZhF, 9/78, 9D1031)

499. Kazakov, V.P., V.N. Korobeynikova, D.D. Afonichev, Yu.Ye. Nikitin, and V.I. Ionov (0). Radio-thermoluminescence and temperature de-excitation of UO_2^{2+} luminescence in dimethylsulfoxide. ZhPS, v. 29, no. 4, 1978, 633-638.

500. Kondilenko, I.I., P.A. Korotkov, N.G. Golubeva, V.A. Klimenko, and A.I. Pisanskiy (0). Raman scattering spectrum of an ammonium oxalate monohydrate crystal. OiS, v. 45, no. 4, 1978, 819-820.

501. Korneychuk, V.A., T.I. Mitrofanova, P.Ye. Mozol', and G.S. Pekar (0). Photoconductivity of CdS:Cu under ruby laser excitation. Physica status solidi, v. B86, no. 2, 1978, 155-158. (RZhRadiot, 10/78, 10Ye558)

502. Kovalev, G.V. (16). Stimulated high frequency phonon radiation. FTT, no. 10, 1978, 3133-3135.

503. Labzovskiy, L.N. (12). Lambda-doubling and parity nonconservation effects in diatomic molecule spectra. ZhETF, v. 75, no. 3, 1978, 856-867.

504. Lebedeva, N.N., A.R. Mordukhayev, A.L. Timofeyev, and R.Yu. Azim-zade (86). Anomalous photovoltaic effect and diffraction efficiency in iron-doped lithium niobate. UFZh, no. 10, 1978, 1718-1721.

505. Letov, D.A. (0). Optical waveguide scheme from a Ta_2O_5 film with a protective coating. OiS, v. 45, no. 4, 1978, 807-811.

506. Lipovskiy, I.M., L.M. Sverdlov, and A.G. Finkel' (0). Study of IR fluorescence of molecular gases excited by continuous CO_2 laser radiation. IVUZ Fiz, no. 10, 1978, 160.

507. Mashchenko, V.Ye., V.M. Vantsan, and A.I. Ziborov (0). Resonance absorption of coherent infrared radiation by acceptors in A^2B^6 crystals. OiS, v. 45, no. 4, 1978, 812-814.

508. Moskalenko, S.A., A.Kh. Rotaru, and P.I. Khadzhi (0). Interaction of ultrashort pulses of resonance laser radiation with high-density excitons. Sb 28, 3-38. (RZhRadiot, 9/78, 9Ye344)

509. Nikolic, P.M., Lj. Milkovic, P. Mihajlovic, and B. Lavrencic (NS). Raman scattering in SnSe. Czechoslovak Journal of Physics, v. B28, no. 4, 1978, 456-459. (RZhF, 10/78, 10D453)

510. Shmiglyuk, M.I., P.I. Bardetskiy, and Ye.V. Vitiu (0). Anisotropy of exciton dipole absorption of light in a cubic crystal in the case of double optical resonance. Sb 28, 91-97. (RZhF, 10/78, 10D1090)

511. Suslikov, L.M., I.I. Nebola, Ye.Yu. Peresh, Yu.V. Voroshilov, D.M. Bercha, and V.Yu. Slivka (136). Optical phonons in $CdGa_2S_4$. FTT, no. 10, 1978, 3186-3189.

512. Tanashchuk, M.P., and L.P. Gil'chuk (0). Experimental scattering matrices of ground glass surfaces. OiS, v. 45, no. 4, 1978, 718-724.

513. Vaytkus, Yu., E. Gaubas, and K. Yarashyunas (49). Study of the mechanism of light self-diffraction on a germanium surface. FTT, no. 10, 1978, 3160-3162.

514. Veletskas, D.M.A. (49). Study of nonequilibrium electric conductivity in wideband semiconductors under excitation by micro-, nano- and picosecond laser pulses. Vil'nyusskiy GU. Dissertation, 1978, 16 p. (KLDV, 10/78, 23622)

515. Voltsit, V.V., A.V. Drazhan, V.A. Zuyev, M.T. Ivaniychuk, D.V. Korbutyak, and V.G. Litovchenko (6). Photoluminescence of silicon-implanted gallium arsenide. FTP, no. 10, 1978, 2036-2039.

516. Yeliseyev, V.B., L.A. Kalmykova, S.V. Ryabikov, N.A. Shipova, and A.V. Kotov (0). Chemical and structural modification of polymers subjected to laser radiation. ZhPS, v. 29, no. 3, 1978, 446-449.

517. Zaytsev, L.M., L.Yu. Zysina, M.V. Senashenko, and Ye.I. Tsarapayeva (0). Determining the sensitivity threshold of luminescent screens of thermal motion during continuous IR irradiation. PTE, no. 5, 1978, 253-254.

518. Zhilionis, A.A., R.Yu. Krauyalis, and Yu.Y. Reksnis (0). Thermooptic properties of neodymium glass. Sb 5, 59-60. (RZhRadiot, 10/78, 10Ye487)

519. Zuyev, V.A. (6). Photoluminescence of laminar structures excited by a laser. Sb 3, 69-79.

J. BEAM-TARGET INTERACTION

1. Metal Targets

520. Apollonov, V.V., A.I. Barchukov, V.I. Borodin, P.I. Bystrov, V.F. Goncharov, V.V. Ostanin, L.M. Ostrovskaya, A.M. Prokhorov, V.N. Rodin, Ye.V. Trushin, V.Yu. Khomich, M.I. Tsypin, Yu.F. Shevakin, and Ya.Sh. Shur (1). Raising the optical damage thresholds of metallic mirror surfaces during their cooling by means of a structure with open porosity. ZhTF P, no. 19, 1978, 1193.

521. Arzuov, M.I., V.I. Konov, and S.M. Metev (0). Study of metal heating kinetics in an oxidative medium by c-w CO_2 laser radiation. FiKhOM, no. 5, 1978, 19-23.

522. Arzuov, M.M., F.V. Bunkin, N.A. Kirichenko, V.I. Konov, and B.S. Luk'yanchuk (1). Effect of surface oxidation on the dynamics of heating metals by CO_2 laser radiation. Fizicheskiy institut AN SSSR. Preprint, no. 39, 1978, 37 p. (RZhF, 9/78, 9D1040)

523. Bergel'son, V.I., and I.V. Nemchinov (276). Parameters of the plasma formed from microsecond laser pulses on an aluminum target in vacuo. KE, no. 10, 1978, 2123-2131.

524. Kogan, A.N., L.I. Mirkin, and N.P. Trostina (0). Obtaining metal coatings by means of a laser beam. Sb 29, 131-136. (RZhRadiot, 10/78, 10Ye615)

525. Kozik, Ye.A., T.V. Loseva, I.V. Nemchinov, and V.V. Novikova (276). Subsonic radiation waves, propagating from an obstruction towards CO_2 laser radiation. KE, no. 10, 1978, 2138-2147.

526. Valyanskiy, S.I. (468). Recoil pulse generated in lead and zinc under radiation from a Q-switched ruby laser. ZhTF, no. 10, 1978, 2210-2213.

527. Valyanskiy, S.I., B.M. Zhiryakov, N.I. Lipatov, N.I. Popov, and A.A. Samokhin (0). Behavior of the recoil pressure during onset of a stationary vaporization regime under the action of optical radiation. FiKhOM, no. 5, 1978, 12-18.

2. Dielectric Targets

528. Balagurov, A.Ya., G.I. Labudin, and V.I. Skobelkin (0). Temperature field in a dielectric mirror during interaction with laser radiation. Inzhenerno-fizicheskiy zhurnal, v. 35, no. 4, 1978, 724-727.

529. Bal'kyavichyus, P.I., Ye.K. Kosenko, and I.P. Lukoshyus (0). Effect of stimulated Brillouin scattering on relative radiation resistance of optical materials. Sb 5, 53-54. (RZhRadiot, 10/78, 10Ye488)

530. Bal'kyavichyus, P.I., Ye.K. Kosenko, I.P. Lukoshyus, and E.K. Maldutis (63). Study on the effect of stimulated Brillouin scattering on internal damage to optical glass. KE, no. 9, 1978, 2032-2034.

531. Endert, H., W. Melle, and Ch. Pantel (NS). Effect of surface processing and defects on the threshold of destruction of KDP crystals under ruby laser radiation. Experimentelle Technik der Physik, no. 2, 1978, 175-182. (RZhF, 9/78, 9Ye869)

532. Golubev, S.G., Yu.N. Lokhov, and Yu.D. Fiveyskiy (0). Energy absorption of a laser single pulse focused deep into a solid optically transparent dielectric. FiKhOM, no. 5, 1978, 3-11.

533. Gorshkov, B.G. (1). Study of the mechanisms of destruction of ion crystals under the action of pulsed nanosecond laser radiation. Fizicheskiy institut AN SSSR. Dissertation, 1977, 19 p. (KLDV, 9/78, 21056)

534. Kosolobov, S.N., R.I. Sokolovskiy, and Ye.L. Tyurin (10). Shock mechanism of laser radiation energy dissipation in a transparent dielectric containing microinclusions and impurities. ZhTF, no. 9, 1978, 1986-1987.

535. Lysikov, Yu.I. (0). Analysis of the kinetics of high-power light flux propagation in a transparent dielectric with impurities. ZhPMTF, no. 5, 1978, 60-65.

536. Morachevskiy, N.V. (1). Study of the radiation strength of optical materials for high-power lasers. Tr 1, 118-163.

537. Morichev, I.Ye., A.P. Onokhov, and V.P. Savinov (0). Temperature dependence of quartz glass absorption in connection with optical breakdown problems. ZhTF, no. 10, 1978, 2197-2200.

538. Vol'ter, V.G., and A.N. Sviridov (7). Some characteristics of laser welding of glass casings. OMP, no. 10, 1978, 42-44.

3. Semiconductor Targets

539. Timofeyev, A.B. (2). Heating a semiconductor amorphous film in an optical field. VMU, no. 5, 1978, 79-80.

540. Tyagay, V.A., V.A. Sterligov, and G.Ya. Kolbasov (0). Some problems and prospects for laser electrochemistry of semiconductor materials. Sb 30, 181-199. (RZhF, 9/78, 9D1027)

4. Miscellaneous Studies

541. Apollonov, V.V., A.M. Prokhorov, V.Yu. Khomich, and Ye.V. Khristyan (0). Possibility of using vapotron cooling in power optics. ZhTF P, no. 8, 1978, 433-436. (RZhF, 9/78, 9D1065)

542. Ikonnikov, Yu.V., Ye.F. Bolotov, and Yu.P. Shatalov (0). Using a nitrogen laser in preparing ultrasonic delay lines in surface waves. Sb 31, 30-33. (RZhRadiot, 10/78, 10Ye616)

543. Karpov, O.V., A.S. Oganisyan, G.D. Petrov, and E.F. Yurchuk (0). Interaction of laser radiation with a heterogeneous medium. ZhPS, v. 29, no. 3, 1978, 415-418.

544. Krutyakova, V.P., and V.N. Smirnov (0). Electron emission from sodium chloride crystal surfaces subjected to pulsed CO_2 laser radiation. ZhTF P, no. 19, 1978, 1163-1167.

545. Likhachev, A.P. (463). Laser method for studying properties under superhigh temperatures and pressures. Geokhimiya, no. 10, 1978, 1554-1557.

546. Panteleyev, V.V., V.A. Rozantsev, and A.A. Yankovskiy (3). Study of the spectral intensity of a plasma and the erosion of materials under variable conditions of laser pulse generation. Tr 8, 27-29. (RZhRadiot, 10/78, 10Ye554)

547. Smyslov, Ye.F. (162). Study of the structure and properties of porous materials processed by shock waves and laser pulses. Moskovskiy gos pedagogicheskiy institut. Dissertation, 1978, 15 p. (KLDV, 10/78, 23718)

548. Wiederhold, G. (NS). Device for enabling higher repetitive frequency and pulse broadening during precision materials processing by pulsed laser. Patent GDR, no. 127596, issued 5 October 1977. (RZhRadiot, 10/78, 10Ye606)

K. PLASMA GENERATION AND DIAGNOSTICS

549. Abdullayev, A.Sh., Yu.M. Aliyev, and V.Yu. Bychenkov (1). Self-excitation of magnetic fields in a laser plasma. ZhETF P, v. 28, no. 8, 1978, 524-526.

550. Afanas'yev, Yu.V., N.G. Basov, V.A. Gribkov, A.I. Isakov, N.V. Kalachev, O.N. Krokhin, L.V. Krupnova, V.Ya. Nikulin, V.V. Pustovalov, A.V. Romanov, M.A. Savchenko, O.G. Semenov, V.P. Silin, and G.V. Sklizkov (1). High-power 20-channel Nd:glass laser and combined laser-beam heating of a plasma. Tr 1, 202-203.

551. Akhmedov, U.K., A.T. Mirzayev, M.R. Bedilov, T.B. Satyboldiyev, M.S. Sabitov, and A.N. Ishmuratov (461). Study of multicharged ions in a laser plasma. UFZh, no. 9, 1978, 1473-1476.

552. Andreyev, N.Ye., V.P. Silin, and G.L. Stenchikov (1). Effect of suppressing the generation of fast electrons in a plasma. ZhETF P, v. 28, no. 8, 1978, 533-537.

553. Asinovskiy, E.I., L.M. Biberman, S.Ya. Bronin, V.L. Nizovskiy, V.N. Sushkin, V.I. Shabashov, and Yu.V. Yartsev (74). Possibility of achieving limit gain coefficient values in a CO_2:N_2:He plasma mixture. DAN SSSR, v. 242, no. 4, 1978, 819-821.

554. Badanov, A.G., S.D. Zakharov, A.I. Isakov, I.A. Kopysov, G.N. Solov'yev, and V.D. Chalyy (1). Possibility of constructing an automatic control system for a high-power multichannel laser: the "Laser" control system. Fizicheskiy institut AN SSSR. Preprint, no. 116, 1977, 39 p. (RZhRadiot, 9/78, 9Ye246)

555. Basov, N.G., N.Ye. Bykovskiy, A.Ye. Danilov, M.P. Kalashnikov, O.N. Krokhin, B.V. Kruglov, Yu.A. Mikhaylov, V.P. Osetrov, N.V. Pletnev, A.V. Rode, Yu.V. Senatskiy, G.V. Sklizkov, S.I. Fedotov, and A.N. Fedorov (1). The "Del'fin" high-power laser system for heating spherical thermonuclear targets. Tr 1, 3-51.

556. Basov, N.G., V.F. Belyan, G.P. Zhilkin, V.S. Zvezdin, V.S. Krasovskiy, O.N. Krokhin, B.V. Kruglov, A.V. Kutsenko, Yu.N. Ol'shevskiy, N.V. Pletnev, Yu.V. Senatskiy, G.V. Sklizkov, L.K. Subbotin, S.I. Fedotov, and N.N. Sheremet'yevskiy (1). Principles in the adjustment of multibeam lasers for thermonuclear targets. Tr 1, 52-83.

557. Bogacheva, S.P., I.I. Kachurik, and V.I. Lend'yel (0). Relaxation of a dispersed highly ionized low-temperature sodium plasma. Sb 2, 165-166. (RZhRadiot, 10/78, 10Ye5)

558. Bulanin, V.V., A.P. Khilinskiy, A.V. Petrov, and S.N. Ushakov (0). Homodyne method for recording scattered CO_2 laser radiation to study plasma density waves. ZhTF P, no. 18, 1978, 1099-1102.

559. Danilov, A.Ye., Yu.A. Mikhaylov, G.V. Sklizkov, and S.I. Fedotov (1). System for recording the contrast of high-power pulsed laser radiation. Fizicheskiy institut AN SSSR. Preprint, no. 73, 1978, 19 p. (RZhF, 10/78, 10D1131)

560. Denus, S., S. Kaliski, A. Kasperczuk, S. Kowalski, M. Paduch, L. Pokora, and Z. Wereszczynski (NS). Study on the phase of maximum plasma-compression in a focus device by laser methods. Journal of Technical Physics [Poland], no. 1, 1978, 31-39. (RZhF, 9/78, 9G187)

561. Denus, S., S. Kaliski, A. Kasperczuk, S. Kowalski, M. Paduch, L. Pokora, and Z. Wereszczynski (NS). Using laser methods to study the maximum compression phase of a plasma in a "Focus" device. BWAT, no. 5, 1978, 49-57. (RZhF, 10/78, 10G192)

562. Dragila, R., and J. Krepelka (NS). Absorption and reflection of laser-produced plasma with spherical symmetry. Czechoslovak Journal of Physics, v. B28, no. 5, 1978, 529-532. (RZhRadiot, 10/78, 10Ye552)

563. Dragila, R., and J. Limpouch (NS). Dual-frequency, laser-produced plasma heating. Czechoslovak Journal of Physics, v. B28, no. 7, 1978, 757-760.

564. Gal'perin, I.I., V.S. Il'in, A.M. Kakurin, Yu.K. Mikhaylovskiy, L.I. Molotkov, V.S. Svishchev, and N.N. Shvindt (23). Plasma diagnostics by laser scattering using an automatic recording spectrometer in a TO-1 Tokamak. Institut atomnoy energii. Preprint, no. 2911, 17 p. (RZhF, 9/78, 9G185)

565. Kaliski, S. (NS). Generation of neutrons in a deuterium plasma by CO_2 laser implosion of a shell in a conical region. BWAT, no. 3, 1978, 87-93. (RZhF, 10/78, 10G203)

566. Karapetyan, R.V., and M.V. Fedorov (1). Spontaneous brehmsstrahlung of an electron in an intense electromagnetic wave field. ZhETF, v. 75, no. 3, 1978, 816-826.

567. Komissarova, I.I., and G.V. Ostrovskaya (4). Applying dispersion holographic interferometry in studying a laser spark. ZhTF, no. 10, 1978, 2062-2067.

568. Korobkin, V.V., and S.L. Motylev (1). Magnetic detector for measuring spontaneous magnetic fields near a laser plasma. PTE, no. 5, 1978, 189-191.

569. Koval'chuk, Yu.V., I.I. Komissarova, and G.V. Ostrovskaya (4). Study of nonlinear absorption of dye laser radiation in the plasma of a laser spark. ZhTF, no. 10, 1978, 2068-2073.

570. Medvedev, R.N., and N.A. Solov'yev (0). Determining the electron temperature of a laser plasma from continuous Raman radiation of multicharged ions. KE, no. 10, 1978, 2283-2285.

571. Nemchinov, I.V., M.P. Popova, and L.P. Shubadeyeva (276). Overlapping of a laser beam section by a plasma expanding in a supersonic radiation wave regime. ZhTF, no. 9, 1978, 1976-1977.

572. Pustovalov, V.V., V.P. Silin, and A.A. Chernikov (1). Nonstationary theory of parametric plasma instabilities. KE, no. 9, 1978, 1940-1948,

573. Pyatnitskiy, L.N., P.A. Vokhmin, I.I. Klimovskiy, and L.Ya. Margolin (74). Prospects of laser application in self-restricting transitions for plasma diagnostics by a light scattering method. KE, no. 10, 1978, 2282-2283.

574. Shikanov, A.S. (1). Studying the interaction of high-power optical radiation with a superdense plasma in the "Kal'mar". Tr 1, 164-201.

575. Smirnov, V.N. (0). A possible mechanism for lowering the optical breakdown threshold of air near the surface of a solid. ZhTF, no. 9, 1978, 1977-1979.

576. Vas'kovskiy, Yu.M., N.N. Vorob'yeva, I.A. Gordeyeva, V.K. Orlov, and R.Ye. Rovinskiy (0). Optical breakdown at 10.6 μ at a plasma layer boundary in argon. KE, no. 9, 1978, 1969-1974.

III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS

577. Atomnyy spektral'nyy analiz s primeneniyem lazerov (Atomic spectral analysis using lasers). Institut fiziki AN BSSR. Preprint, no. 144, 1978, 48 p.

578. Avsiyevich, Ye.A. (0). Lazery v promyshlennoy tekhnologii (Lasers in industrial technology). Novoye v zhizni, nauke, tekhnike. Seriya Tekhnika, no. 2, Moskva, Znaniye, 1978, 63 p. (KL, 33/78, 28590)

579. Barachevskiy, V.A., ed. (0). Neserebryanyye i neobychnyye sredy dlya golografii (Nonsilver and unconventional media for holography). Leningrad, Nauka, 1978, 127 p. (RZhF, 10/78, 10D1209)

580. Godzhayev, N.M. (0). Golografiya (Holography). Baku, 1977, 23 p. (KL, 36/78, 31157)

581. Golubev, A.N., and M.T. Prilepin (120). Svetodal'nomery (Optical DME's). Summary of lectures for a course on radiogeodetic and electrooptic measurements. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii, 1977, 68 p. (KL, 40/78, 34415)

582. Gurevich, S.B., V.B. Konstantinov, V.K. Sokolov, and D.F. Chernykh (0). Peredacha i obrabotka informatsii golograficheskimi metodami (Transmission and processing of information by holographic methods). Moskva, Sovetskoye radio, 1978, 304 p. (RZhF, 9/78, 9D1129)

583. Ikonika. Tsifrovaya obrabotka i fil'tratsiya izobrazheniy (Iconics. Digital processing and filtration of images). Voprosy kibernetiki, no. 38, 1978, 3-85. (RZhF, 10/78, 10D1229)

584. Issledovaniya v oblasti spektroskopii i kvantovoy elektroniki. Chetvertaya Respublikanskaya konferentsiya molodykh uchenykh, Vil'nyus, 18-19 aprel' 1978. Tezisy dokladov (Research in spectroscopy and quantum electronics. Fourth Republic Conference of Young Scientists, Vilnius, 18-19 April 1978. Summaries of the reports). Vil'nyus, 1978, 88 p. (RZhRadiot, 9/78, 9Ye16)

585. Izmeritel'nyye pribory dlya issledovaniya parametrov prizemnykh sloyev atmosfery (Measuring instruments for studying the parameters of atmospheric boundary layers). Institut optiki atmosfery SOAN. Sbornik statey. Tomsk, 1977, 177 p. (RZhF, 10/78, 10D887)

586. Kalinin, Yu.A., A.V. Kubarev, and B.N. Morozov (0). Izmereniya v oblasti kvantovoy elektroniki (Measurements in the quantum electronics field). Moskva, Mashinostroyeniye, 1978, 72 p. (KL, 39/78, 33699)

587. Kaliski, S. (NS). Raboty po termoyadernomu mikrosintezu v Pol'she (Works on thermonuclear microfusion in Poland). Moskva, Mezhdunarodnyy tsentr nauchnoy i tekhnicheskoy informatsii, 1978, 37 p. (KL, 39/78, 33608)

588. L'vova, N.A. (30). Kogerentnaya i nelineynaya optika (Coherent and nonlinear optics). Leningradskiy institut tochnoy mekhaniki i optiki, 1977, 69 p. (KL, 42/78, 36094)

589. Malyshev, V.A. (54). Pribory kvantovoy elektroniki. Ch. 1. Osnovy kvantovoy radiofiziki (Instruments of quantum electronics. Part 1. Fundamentals of radiophysics). Taganrogskiy radiotekhnicheskiy institut, 1977, 119 p. (KL, 39/78, 33703)

590. Metody lazernoy diagnostiki odnofaznykh i mnogofaznykh techeniy. Materialy Mezhdunarodnogo shkol-seminara, 5-9 iyunya 1978 (Methods for laser diagnostics of single-phase and multiphase flows. Materials of the international seminar, 5-9 June 1978). Minsk, 1978, 122 p. (RZhMekh, 10/78, 10B1052)

591. Metody lazernoy dopplerovskoy diagnostiki v gidroaerodinamike. Materialy mezhdunarodnogo shkol-seminara (Methods for laser Doppler diagnostics in hydroaerodynamics. Materials of the international seminar). Minsk, 1978, pp. not given. (RZhMekh, 9/78, 9B1404)

592. Nasibov, A.S. (0). Elektronno-luchevyye trubki s lazernym ekranom (E-beam tubes with a laser screen). Moskva, TsNIIPI, 1977, 82 p. (KLDV, 9/78, 10446)

593. Optiko-kogerentnyye informatsionno-izmeritel'nyye sistemy (Coherent optical information-measuring systems), no. 1, place of publication not given, 1977, 162 p. (RZhF, 10/78, 10D776)

594. Smirnov, V.S. (46). Lektsii po teorii tverdotel'nykh lazerov (Lectures on the theory of solid-state lasers). Novosibirskiy GU, 1977, 46 p. (KL, 37/78, 32090)

595. Sovremennoye sostoyaniye i perspektivy razvitiya vysokoskorostnoy fotografii i kinematografii i metrologii bystroprotekayushchikh protsessov (Current status and prospects for development of high-speed photography and cinematography and metrology of fast-flow processes). Vsesoyuznaya tekhnicheskaya konferentsiya, 16-20 April 1978. Tezisy dokladov. Moskva, 1978, 144 p. (RZhF, 10/78, 10D1355)

596. Soyfer, V.A. (465). Tsifrovaya golografiya i yeye primeneniye (Digital holography and its application). Kuybyshevskiy aviatsionnyy institut, 1978, 85 p. (KL, 41/78, 35253)

597. Timoshin, Yu.V. (0). Impul'snaya seysmicheskaya golografiya (Pulsed seismic holography). Moskva, Nedra, 1978, 286 p. (KL, 40/78, 34431)

598. Vtoroy Vsesoyuznyy seminar po fizicheskim protsessam v gazovykh OKG, Uzhgorod, 15-17 maya 1978. Tezisy dokladov (Second All-Union Seminar on the Physical Processes in Gas Lasers, Uzhgorod, 15-17 May 1978. Summaries of the reports). Uzhgorod, 1978, 181 p. (RZhRadiot, 10/78, 10Ye17)

599. Zakharov, A.I. (0). Novyye teodolity i opticheskiye dal'nomery (New theodolites and optical DME's). 2nd edition. Moskva, Nedra, 1978, 261 p. (KL, 35/78, 30230)

IV. SOURCE ABBREVIATIONS

	(CIRC Codens)	
APH	(APAHA)	Acta physica Academiae scientiarum hungaricae
BAPS Math	(BAPMA)	Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Mathematique, Astronomique et Physique
BWAT	(BWATA)	Biuletyn Wojskowej akademii technicznej J. Dabrowskiego
DAN Arm	(DANAA)	Akademiya nauk Armyanskoy SSR. Doklady
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
EOM	(EOBMA)	Elektronnaya obrabotka materialov
FiKhOM	(FKOMA)	Fizika i khimiya obrabotka materialov
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN B	(VABFA)	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Fiz	(IVUFA)	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelektr	(IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
KE	(KVEKA)	Kvantovaya elektronika
KhVE	(KHVKA)	Khimiya vysokikh energiy
KL	(KNLTA)	Knizhnaya letopis'
KLDV	(KLDVA)	Knizhnaya letopis'. Dopolnitel'nyy vypusk
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
MZhiG	(IMZGA)	Akademiya nauk SSSR. Izvestiya. Mekhanika zhidkosti i gaza

OiS	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
PTE	(PRTEA)	Pribory i tekhnika eksperimenta
RiE	(RAELA)	Radiotekhnika i elektronika
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeofiz	(GZGFA)	Referativnyy zhurnal. Geofizika
RZhMekh	(RZMKA)	Referativnyy zhurnal. Mekhanika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	Sbornik	Dielektricheskiye materialy radioelektroniki. Moskva, 1977.
Sb2		Vsesoyuznyy seminar po fizicheskim protsessam v gazovykh OKG. 2nd. Uzhgorod, 15-17 May 1978. Tezisy dokladov. Uzhgorod, 1978.
Sb3		Kvantovaya elektronika, no. 14, Kiyev, 1978.
Sb4		Issledovaniya po nelineynoy optike i spektroskopii, no. 2, 1976.
Sb5		Issledovaniya v oblasti spektroskopii i kvantovoy elektroniki. Vil'nyus, 1978.
Sb6		Opticheskaya obrabotka informatsii. Leningrad, 1978.
Sb7		Akustoopticheskiye metody obrabotki informatsii. Leningrad, 1978.
Sb8		Neserebryanyye i neobychnyye sredy dlya golografii. Leningrad, 1978.
Sb9		Mikroelektronika, no. 3, 1978.
Sb10		Opticheskiye metody obrabotki informatsii. Minsk, 1978.
Sb11		Elektroopticheskaya segnekeramika. Riga, 1977.
Sb12		Leningradskiy elektrotekhnicheskiy institut. Mezhvuznyy sbornik, no. 118, 1977.
Sb13		Vsesoyuznaya konferentsiya po rasprostraneniyu radiovoln. 12th. Tomsk, 1978. Part 2. Tezisy dokladov. Moskva, 1978.
Sb14		Ionosfernyye issledovaniya, no. 26, 1978.
Sb15		Fundamental'nyye osnovy opticheskoy pamyati i sredy (formerly: Sposoby zapisi informatsii na besserebryanykh nositeliyakh), no. 9, 1978.

Sb16		Sovetsko-frantsuzskiy simpozium optikospektral'nym priboram i priboram dlya obrabotki izobrazheniy, Moskva, September 1976. Materialy. Moskva, 1977.
Sb17		Fizika poluprovodnikov i poluprovodnikovaya elektroniki, no. 7, 1976.
Sb18		Impul'snaya fotometriya, no. 5, 1978.
Sb19		Radiotekhnika, no. 44, 1978.
Sb20		Segneto- i p'yezomaterialy i ikh primeneniye. Moskva, 1978.
Sb21		Metody lazernoy dopplerovskoy diagnostiki v gidroaerodinamika. Minsk, 1978.
Sb22		Sovremennyye problemy razvitiya ispytatel'nykh mashin, vesodozirovochnoy i siloizmeritel'noy tekhniki. Moskva, 1978.
Sb23		Metody lazernoy diagnostiki odnofaznykh i mnogofaznykh techeniy. Minsk, 1978.
Sb24		Geofizicheskiy sbornik, no. 83, 1978.
Sb25		Razvedochnaya geofizika, no. 81, 1978.
Sb26		Voprosy analiza i sinteza radiosignalov i ikh obrabotki, no. 2, 1977.
Sb27		Magnitnyye svoystva plenochnykh i massivnykh materialov. Krasnoyarsk, 1977.
Sb28		Sobstvennyye poluprovodniki pri bol'shikh urovnyakh vozbuzhdeniya. Kishinev, 1978.
Sb29		Elektronnyye svoystva tverdykh tel i fazov prevrashcheniya. Saransk, 1978.
Sb30		Problemy fiziki khimii poverkhnosti poluprovodnikov. Novosibirsk, 1978.
Sb31		Sredstva svyazi, no. 4, 1977.
TKiT	(TKTEA)	Tekhnika kino i televideniya
Tr1	Trudy	Fizicheskiy institut AN SSSR. Trudy, no. 103, 1978.
Tr2		Trudy metrologicheskikh institutov SSSR. VNII metrologii, no. 220/280, 1977.
Tr3		Kharkovskiy universitet. Vestnik, no. 163, 1978.
Tr4		Institut kibernetiki AN GruzSSR. Trudy, no. 3, 1977.
Tr5		Belorusskiy universitet. Vestnik, seriya 1, no. 2, 1978.
Tr6		VNII fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy. Trudy, no. 33/63, 1977.

Tr7		Moskovskiy energeticheskiy institut. Trudy, no. 350, 1978.
Tr8		Institut fiziki AN BSSR. Preprint, no. 144, 1978.
TVT	(TVTYA)	Teplofizika vysokikh temperatur
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskiy zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Fizika, astronomiya
VMU Khim	(VMUKA)	Moskovskiy universitet. Vestnik. Khimiya
ZhETF	(ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	(ZFPRA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhNiPFiK	(ZNPFA)	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF	(ZPMFA)	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	(ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF	(ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P	(PZTFD)	Pis'ma v Zhurnal tekhnicheskoy fiziki
ZhVMMF	(ZVMFA)	Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki

V. AUTHOR AFFILIATIONS

NS. Non-Soviet
0. Affiliation not given
1. Physics Institute imeni Lebedev, AN SSSR (Fizicheskiy institut im Lebedeva AN SSSR).
2. Moscow State University (Moskovskiy gosudarstvennyy universitet).
3. Institute of Physics, AN BSSR, Minsk (Institut fiziki AN BSSR).
4. Physicotechnical Institute im Ioffe, Leningrad (Fiziko-tekhnicheskiy institut im Ioffe).
5. Institute of Physics, AN UkrSSR, Kiev (Institut fiziki AN UkrSSR).
6. Institute of Semiconductors, AN UkrSSR, Kiev (Institut poluprovodnikov AN UkrSSR).
7. State Optical Institute im Vavilov, Leningrad (Gosudarstvennyy opticheskiy institut im Vavilova).
10. Institute of Semiconductor Physics, Siberian Branch, AN SSSR, Novosibirsk (Institut fiziki poluprovodnikov Sibirskogo otdeleniya AN SSSR).
12. Leningrad State University (Leningradskiy GU).
15. Institute of Radio Engineering and Electronics, AN SSSR (Institut radiotekhniki i elektroniki AN SSSR).
16. Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut).
17. Institute of Mechanical Problems, AN SSSR (Institut problem mekhaniki AN SSSR).
19. Moscow Power Engineering Institute (Moskovskiy energeticheskiy institut).
23. Institute of Atomic Energy im Kurchatov, Moscow (Institut atomnoy energii im Kurchatova).
24. Moscow Higher Technical College im Bauman (Moskovskoye vyssheye tekhnicheskoye uchilishche im Baumana).
29. Leningrad Polytechnic Institute (Leningradskiy politekhnicheskiy institut).
30. Leningrad Institute of Precision Mechanics and Optics (Leningradskiy institut tochnoy mekhaniki i optiki).
34. Khar'kov State University (Khar'kovskiy GU).
36. Physicotechnical Institute of Low Temperatures, AN UkrSSR, Khar'kov (Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR).
39. Institute of Cybernetics, AN GruzSSR (Institut kibernetiki AN GruzSSR).
40. Tbilisi State University (Tbilisskiy GU).
46. Novosibirsk State University (Novosibirskiy GU).
47. Siberian Physicotechnical Institute im Kuznetsov, Tomsk (Sibirskiy fiziko-tekhnicheskiy institut im Kuznetsova).
49. Vilnius State University (Vil'nyusskiy GU).
51. Kiev State University (Kiyevskiy GU).
54. Taganrog Radio Engineering Institute (Taganrozhskiy radiotekhnicheskiy institut).
63. Institute of Physics, AN LatSSR (Institut fiziki AN LatSSR).
67. Institute of Physics of Chemistry, AN SSSR (Institut khimicheskoy fiziki AN SSSR).
72. Institute of Spectroscopy, AN SSSR (Institut spektroskopii AN SSSR).
74. Institute of High Temperatures, AN SSSR (Institut vysokikh temperatur AN SSSR).
75. Institute of Automation and Electronic Measurements, Siberian Branch, AN SSSR (Institut avtomatiki i elektrometrii SOAN).
78. Institute of Atmospheric Optics, Siberian Branch, AN SSSR (Institut optiki atmosfery SOAN).
79. Institute of Nuclear Physics, Siberian Branch, AN SSSR (Institut yadernoy fiziki SOAN).

82. Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR).
84. Institute of Radiophysics and Electronics, AN UkrSSR (Institut radiofiziki i elektroniki AN UkrSSR).
86. Azerbaydzhan State University (Azerbaydzhanskiy GU).
87. Belorussian State University (Belorusskiy GU).
90. Electrotechnical Institute of Communications (Elektrotekhnicheskiy institut svyazi).
98. Institute of Nuclear Physics at Moscow State University (Institut yadernoy fiziki pri Moskovskom GU).
110. Leningrad Electrotechnical Institute (Leningradskiy elektrotekhnicheskiy institut).
120. Moscow Institute of Engineers of Geodesy, Aerial Photography and Cartography (Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii).
122. Scientific Research Institute of Physicochemistry im Karpov (NI fiziko-khimicheskiy institut im Karpova).
136. Uzhgorod State University (Uzhgorodskiy GU).
137. Voronezh State University (Voronezhskiy GU).
138. Voronezh Polytechnic Institute (Voronezhskiy politekhnicheskiy institut).
140. All Union Scientific Research Institute of Physicotechnical and Radiotechnical Measurements (VNII fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy).
141. All Union Scientific Research Institute of Opticophysical Measurements (VNII optiko-fizicheskikh izmereniy).
151. Kishinev State University (Kishinevskiy GU).
159. Institute of Thermophysics, Siberian Branch, AN SSSR (Institut teplofiziki SOAN).
161. Moscow Institute of Radio Engineering, Electronics and Automation (Moskovskiy institut radiotekhniki, elektroniki i avtomatiki).
162. Moscow State Pedagogical Institute (Moskovskiy gos pedagogicheskiy institut).
163. All Union Scientific Research Institute of Metrology im Mendeleyev (VNII metrologii im Mendeleyeva).
174. Scientific Research Institute of Organic Intermediates and Dyestuffs, Moscow (NII organicheskikh poluproduktov i krasiteley).
193. Institute of Theoretical and Applied Mechanics, Siberian Branch, AN SSSR (Institut teoreticheskoy i prikladnoy mekhaniki SOAN).
197. Tomsk Polytechnic Institute (Tomskiy politekhnicheskiy institut).
231. Scientific Research Institute of Motion Pictures and Photography (NI kinofotoinstitut).
244. Moscow Scientific Research Institute of Television (Moskovskiy NI televizionnyy institut).
252. Leningrad Institute of Nuclear Physics, AN SSSR (Leningradskiy institut yadernoy fiziki AN SSSR).
265. Irkutsk Polytechnical Institute (Irkutskiy politekhnicheskiy institut).
276. Institute of Physics of the Earth im Shmidt, AN SSSR (Institut fiziki Zemli im Shmidta AN SSSR).
295. Institute of Chemical Kinetics and Combustion, Siberian Branch, AN SSSR (Institut khimecheskoy kinetiki i goreniya SOAN).
297. Institute of Chemistry, AN SSSR, Gor'kiy (Institut khimii AN SSSR).
326. Institute of Radioelectronics, AN SSSR (Institut radioelektroniki AN SSSR).
334. Scientific Research Institute of Applied Physical Problems at Belorussian State University (Nii prikladnykh fizicheskikh problem pri Belorusskom GU).
363. Kiev State Pedagogical Institute (Kiyevskiy gos pedagogicheskiy institut).
442. Institute of High Energy Physics, AN KazSSR, Alma-Ata (Institut fiziki vysokikh energiy AN KazSSR).

445. All Union Scientific Research Institute of the Metrological Service, Moscow (VNII metrologicheskoy sluzhby).
461. Tashkent Polytechnic Institute im Abu Raykhana Beruni (Tashkentskiy politekhnicheskiy institut im Abu Raykhana Beruni).
462. Central Scientific Research Institute of Information and Technical-Economic Studies of Instrument Manufacture, Means of Automation and Control Systems, Moscow (Tsentral'nyy VNII informatsii i tekhniko-ekonomicheskikh issledovaniy priborostroyeniya, sredstv avtomatizatsii i sistem upravleniya).
463. Central Scientific Research Institute of Geological Prospecting for Nonferrous and Noble Metals, Moscow (TsNI geologorazvedochnyy institut tsvetnykh i blagorodnykh metallov).
464. Nizhniy Tagil State Pedagogical Institute (Nizhniy Tagil'skiy gos ped institut).
465. Kuybyshev Aviation Institute (Kuybeshevskiy aviatsionnyy institut).
468. Institute of Low Pressure Physics, AN SSSR, Moscow (Institut fiziki nizkikh davleniy AN SSSR).

VI. AUTHOR INDEX

A

ABAKUMOV B M 50
ABAKUMOV G A 6
ABDULLAYEV A SH 77
ABLEKOV V K 50
ABRAMOV L I 56
ABRAMSKI K M 28
ADAMOVICH V T 8
ADAMUSHKO A V 6
AFANAS'YEV YU V 78
AFANAS'YEVA L A 26
AFONICHEV D D 70
AFON'KIN V G 56
AGEYEV V A 56,68
AKHMANOV S A 31
AKHMEDOV U K' 78
AKSENOV YE T 25
ALEKSAKHIN I S 12
ALEKSANDROV B S 14
ALEKSANDROV N L 18
ALEKSANDROV V A 56
ALEKSANDROV V V 18
ALEKSEYEV N YE 4
ALEKSEYEV V N 4
ALEKSEYEVA I P 32
ALIYEV YU M 77
ALKHIMOV A P 56
ALMAYEV R KH 41
ANDREYANOV V M 1
ANDREYEV N YE 78
ANDREYEV R B 29
ANDRONOV G A 14
ANDRUSHKO L M 37
ANIKEYEV B V 1
ANISIMOV A N 24
ANOKHOV S P 56
ANTONOV A S 20
ANTONOV V S 49
ANTONOV V V 57
ANUFRIK S S 6
APOLLONOV V V 50,73,76
APONIN G I 51
ARISTOV A V 32,68
ARKHIPOV V V 57
ARSAYEV I YE 42
ARZUOV M I 73
ARZUOV M M 73
ASEYEV G G 35
ASHAYEV V K 57
ASHCHEULOV YU V 47
ASINOVSKIY E I 8,78
ASLANYAN L S 57
ATSAGORTSYAN A Z 28
AVSIYEVICH YE A 82
AVTONOMOV V P 11
AZIM-ZADE R YU 71

B

BABEYKO YU A 12
BABICH A S 8
BABKINA T V 37
BACZYNKI A 6
BADANOV A G 78
BADZIAK J 31,57
BAGRATASHVILI V N 49
BAKHERT KH YU 3
BAKLANOV A V 49
BALAGUROV A YA 74
BALAKSHIY V I 25
BALANDIN S F 8
BALENKO V G 26
BAL'KYAVICHYUS P I 74,75
BAN'KOVSKAYA YE N 45
BARACHEVSKIY V A 26,45,82
BARANOV P A 57
BARANOV V YU 8,9,16
BARANOVA N B 4
BARBA N A 43
BARCHUKOV A I 73
BARDETSKIY P I 72
BARKOV L M 57
BARYKINSKIY G M 29
BASAYEV A B 51
BASOV N G 78,79
BASOV YU G 22
BATASHEV S P 1
BATENIN V M 34
BATLAN L I 61
BATOVRIN V K 33
BAYDALOV S I 41
BAZADZE M A 42,44
BEDILOV M R 78
BEDNYAGIN A A 67
BEKOV G I 49
BELANOV A S 37
BELAVIN V A 14
BEL'DYUGIN I M 30
BELOKON' M V 6
BELOUS V V 8
BELOUSOVA I M 16,20,21
BELOV A V 37
BELOV I A 57
BELOV V V 26
BELYAKOV V A 65
BELYALETDINOV I F 2
BELYAN V F 79
BELYY N M 68
BERCHA D M 72
BERESNEV L A 68
BEREZIN V I 35
BERGEL'SON V I 74
BERGMANN J 31
BERKOVSKIY A G 51
BERTSEV V V 51
BESPALOV V I 44
BESSHAPOSHNIKOV A A 51
BETIN A A 44
BEZLEPKO E V 1
BEZUGLOV V A 58
BIBERMAN L M 8,34,78
BISYARIN V P 41
BLAZHENKOV V V 58
BLINOV L M 68
BLINOVSKAYA YE M 58
BOBRIK V I 51
BOGACHEVA S P 12,79
BOGATOV A P 3
BOGDANKEVICH O V 3
BOKHAN P A 13
BOLDYREV S A 22
BOLOTOV YE F 76
BONDARENKO P P 60
BONDAREV A S 22
BORDACHEV YE G 4
BORISOV A A 58
BORISOV E V 37
BORISOV V M 16
BORODIN V I 73
BORODULIN V I 2
BOROVICH B L 22
BOROVIK A A 12
BOROVOY V YA 58
BORSHCH A A 44
BORSHCH V V 68
BOYKO G A 33
BOYKO P B 61
BRAJNIK C 5,28
BRAZOVSKIY V YE 51
BRODIN M S 2,44,69
BRONIN S P 8
BRONIN S YA 78
BRYSKIN V Z 44
BRYSOV O P 58
BRYUKHNEVICH G I 52
BRYUNETKIN B A 3
BUBNOV M M 37
BUERGO PRUNEDA R M 37
BUKHENSKIY M F 44
BULANIN M O 51
BULANIN V V 9,79
BUNKIN A F 57
BUNKIN F V 50,73
BURMASOV V S 9
BUTYLKIN V S 38
BUVNOV V A 57
BUYKO L D 58
BYCHENKOV V YU 77
BYCHKOV S I 38
BYCHKOV YU I 17
BYKOVSKIY N YE 4,51,78
BYSTROV P I 73

C

CHABAKAURI B M 38
CHAGULOV V S 38
CHALYY V D 78
CHAMOROVSKIY YU K 39
CHASHCHIN V S 63
CHASTOV A A 53
CHEBOTAYEV V P 50,52
CHEBURKIN N V 9
CHECHENINA YE P 52
CHEKALIN S V 4
CHEKHOVICH YE K 63
CHEKUSHINA L V 9
CHEREMISKIN I V 6,43
CHEREPOVITSKIY M M 60
CHEREZOV V M 14
CHERKASOV A S 32
CHERMNYKH L N 36
CHERNIKOV A A 81
CHERNYAVSKIY A F 52
CHERNYKH D F 82
CHERPAK N T 35
CHERTKOV A A 23
CHESNULYAVICHUS I I 5
CHETKIN S A 50

CHINNOV V F 17
CHISLEAG R 66
CHISLER E V 69
CHUDNOVSKIY F A 55
CHUDOV V L 64
CHUPRAKOV A V 54
CHURAKOV V V 20
CHUZO A N 58
COMANICIU N 9
CONE G 2
CUCUREZEANU I 66
CZAUS K 26

D

DADESHIDZE V V 24
DANILEYKO M V 59
DANILEYKO YU K 69
DANILOV A YE 78,79
DANILOV O B 20,21,41
DANILOV V V 6
DANILYCHEV V A 9,17
DANISHEVSKIY A M 69
DARZNEK S A 3
DAVYDOV B L 31
DAVYDOV V YU 69
DEMCHUK M I 41
DEMENTIYENKO V V 38
DEMENYUK YE T 16
DEMIDOV S S 3
DEMIDOV V P 53
DEMIN A I 16
DENUS S 79
DERYUGIN L N 43
DERZHITSKAYA V I 59
DEVYATYKH G G 37
DIANOV YE M 37
DIETEL W 6,7
DINEV S 4
DMITRENKO K A 69
DMITRYUK A V 32
DNEPROVSKIY V S 33
DOKASHENKO V P 4
DOLGINOV L M 3
DOLZHNIKOV V S 49
DOMYSHEV V A 64
DRAGILA R 80
DRAGULINESCU D 69
DRAZHAN A V 72
DROBOT N M 59
DROZD I YE 67
DRUCHEVSKIY V A 24
DUBNISHCHEV YU N 59
DUBROV M N 40
DUDNIK YE F 54
DUMITRAS D C 9
DUNAYEVSKIY G YE 57
DUTU D C 9
DVORKIN B A 52
D'YACHKOV L G 13
D'YAKOV YU YE 29
DYUBA N M 50
DZHALOLOV KH A 3
DZHANGOBEGOV R P 38
DZHMUKHADZE D F 24
DZHOTYAN G P 29
DZYUBANOV S F 22
DZYUBENKO M I 5

E

EBRALIDZE T D 42,44
EFENDIYEV T SH 6
ENDERT H 75
EYDNER K 69

F

FADEYEV V V 36,42
FATIYEVSKIY A I 41
FATOV A S 24
FAYZULLOV F S 30
FEDOROV A N 78
FEDOROV M V 70,80
FEDOROV V F 13
FEDOROV YU A 53
FEDOROVICH I B 50
FEDOTOV S I 78,79
FEKESHGAZI I V 68
FELDNER E 52
FELINSKIY G S 23
FENCHAK V A 1
FERTIK N S 54
FILATOV A M 47
FILATOV A N 59
FINKEL' A G 71
FIRSOV V S 38
FISHER P S 38
FIVEYSKIY YU D 75
FOKIN V S 33
FOMCHENKOV V M 23
FOMENKO YU F 23
FONAREV A S 15
FORSH A A 43
FRANC F 42
FRATINI T A 25,53
FRIZEL' V V 68
FROLKIN V T 43
FROLOVA N A 19

G

GALAKTIONOV I I 9
GALAKTIONOV M I 9
GALKIN S L 25
GALOCHKIN V T 58
GAL'PERIN I I 80
GANZHERLI N M 44
GAPONTSEV V P 4
GAPRINDASHVILI KH I 38
GAUBAS E 72
GAVRIKOV V F 14
GAVRILOV V N 52
GERASIMENKO A N 59
GERASIMOV I A 34
GERASIMOV V A 13,20
GERMAN L A 59
GIBADULLIN N S 22
GIL'CHUK L P 72
GILERMO A 6
GINTOFT R I 5
GLEYZER A I 34
GLOTOV YE P 9
GNATOVSKIY A V 53
GODIK E E 38
GODZHAYEV N M 82
GOGOLEV A V 61
GOLGER A L 22
GOLOVASHKIN A I 69
GOLUBEV A N 82
GOLUBEV S G 75
GOLUBEVA N G 70
GOMENYUK A S 59
GONCHAROV V N 26
GONCHAROV V F 73
GONCHARUK I N 69
GONCHUKOV S A 10,18
GORBAN' I S 68
GORDEYEVA I A 81
GORDIN M P 41
GORDON G I 38
GORELOV V YU 9
GORSHKOV B G 75
GRACHEV A I 44
GRACHEVA G G 26
GRASSME W 7
GRATSIANOV K V 6
GRIB B N 23
GRIBKOV V A 78
GRIBKOVSKIY V P 2
GRIGORENKO V P 18
GRIGORIU C 69
GRIGOR'YANTS V V 37,38,39
GRIGOR'YEV P G 21
GRIGOR'YEVA YE YE 39
GRIN' YU I 15
GRINCHENKO B I 32
GRINTSEVICH E M 22,23
GRITS V G 30
GROMOV A K 4
GROZNYY A V 44
GRUYEV D I 31
GRUZINSKIY V V 5
GRYAZNOV M I 53
GRYAZNOV YU M 53
GUBANOV V A 68
GUBANOV YU I 51
GUDYALIS V V 5
GUDYMENKO L F 70
GUDZENKO L I 11,17,22
GUGA Z P 7
GULE YE G 70
GUREVICH S B 82
GUROV YU V 3
GURVICH L V 32
GUR'YANOV A N 37
GUSEV A A 1
GUSEV N V 51
GUSEV V G 53
GUSTYR' L YA 53

H

HOFMANN C 45

I

IGRAS E 24
IKONNIKOV YU V 76
ILAS P 26

IL'IN V S 80
IL'INSKIY YU A 34
IOAN G 18
IONIKH YU Z 11
IONOV V I 70
ISAKOV A I 78
ISAKOV I M 13,17
ISHCHENKO V N 18
ISHCHENKO YE F 59
ISHCHUTIN A N 7
ISHMURATOV A N 78
IVANENKO O M 69
IVANIYCHUK M T 72
IVANOV A P 60
IVANOV D K 24
IVANOV G A 38,39
IVANOV V A 2
IVANOV V I 53
IVANOV V N 15
IVANOV V S 45
IVANOVA T F 4
IVANOVA YE A 69
IVASHECHKINA M A 60
IZMAYLOV I A 18
IZYNEYEV A A 4

J

JANSON R 67

K

KABANOV M V 42
KABASHNIKOV V P 53
KACHURIK I I 79
KACHURIN G A 70
KADOSHNIKOV S I 36
KAGNA V Z 26
KAKURIN A M 80
KALACHEV N V 78
KALAGURSKIY B M 7
KALASHNIKOV M P 78
KALININ I I 60
KALININ P K 53
KALININ YU A 53,83
KALISKI S 79,80,83
KALMYKOVA L A 72
KAMSHILIN A A 47
KAPARTOVICH A P 20
KAPAYEV A V 18
KAPSHIN YU S 60
KAPTSOV L N 1
KARAGODOVA T YA 30
KARAPETYAN G O 32
KARAPETYAN R V 70,80
KARGOPOL'TSEV V S 2
KARMANOV V I 61
KARPOV O V. 76
KARPOV S YU 3
KARPUKHIN V T 15
KARPUSHKO F V 5
KARTAZAYEV V A 3
KASPERCZUK A 79
KAS'YANOV V A 50
KATRICH A B 25
KATULIN V A 22
KATYSHEV YE G 26
KAYPER A 3
KAZAKOV V P 70
KAZARYAN M A 13
KEL'MAN V A 14
KERIMOV O M 17
KHADZHI P I 71
KHAKIMOV A A 40
KHALININ V V 35
KHAPALYUK A P 28,34
KHAPTANOV V B 24
KHARCHENKO V N 60
KHARISOV G G 2
KHAYRETDINOV K A 3
KHILINSKIY A P 79
KHIMINETS V V 31
KHODAN I V 60
KHOMENKO A V 27
KHOMICH V YU 50,73,76
KHOMUTOVA L A 25,53
KHOROSHILOV A V 65
KHOVANSKIKH M D 40
KHRISTYAN YE V 76
KHRONOPULO YU G 28
KHULORDAVA G G 43
KHULUGUROV V M 1
KHUZEYEV A P 17
KIELICH S 31
KIPEN' A A 2
KIREYEV A S 5
KIREYEVA S I 34
KIRICHENKO N A 73
KIRILLOV G A 16
KIRILOV A YE 13
KIRKIN A N 58
KIRYUKHIN YU B 16
KISELEV V M 21
KISELEVSKIY A L 6
KISILITSA P P 46
KLIMENKO V A 70
KLIMKIN V F 60,67
KLIMOVSKIY I I 12,14,34,81
KLOPOVSKIY K S 10
KLYUBIN V V 60
KLYUCHKIN S V 20
KLYUKIN L M 54
KNEIPP K 31
KNEZEVIC M 28
KNYAZEV I N 49,50
KOBZEV G A 13,34
KOBZEV V V 39
KOCHELAP V A 18
KOCHENOV V I 44
KOCHETKOV YU A 11
KOCHETOV I V 11
KOENIG R 7
KOGAN A N 74
KOGAN M N 15
KOKUNINA A F 4
KOKUSHKIN A M 21
KOLBASOV G YA 76
KOLBIN I I 6
KOLESHKO V M 58
KOLESNIK A I 60
KOLESNIK A V 68
KOLINKO N B 51
KOLOBKOV N S 50
KOLOBYANIN YU V 16
KOLOKOLOV A A 32
KOLOMNIKOV YU D 7
KOLOSOVSKIY O A 54
KOLTOK YU V 25,54
KOMAR V G 60
KOMAROV V A 42
KOMISSAROVA I I 80,81
KOMLYAKOV V V 39
KOMPANETS I N 26
KONDILENKO I I 23,70
KONEV YU B 11,15
KONEVSKIY V S 34
KONONENKO A A 36
KONOPLEV A N 14
KONOV V I 73
KONOVALOV I N 17
KONSTANTINOV V A 25
KONSTANTINOV V B 82
KONYAYEV V P 2
KONYSHEV V V 70
KOPERLES B M 31
KOPYLOV YU L 4
KOPYSOV I A 78
KORBUTYAK D V 72
KORENEVA L G 31
KORENNAYA L N 39
KORMER S B 16
KORNEYCHUK V A 70
KORNILOV S T 10
KORNILOV S T 18
KORNIYENKO L S 61
KOROBEYNIKOVA V N 70
KOROBITSIN V A 16
KOROBKIN V V 52,80
KOROBOV V YE 5
KOROLEV YU D 17
KOROTEYEV N I 57
KOROTKOV A N 39
KOROTKOV P A 23,70
KORSHUNOV I P 40
KORVATOVSKIY B N 36
KOSENKO YE K 74,75
KOSHTURA V YU 14
KOSHTURA V YU 14
KOSOLOBOV S N 75
KOSTEV O N 53
KOSTIN V N 8
KOTENKO L P 58
KOTEROV V N 18
KOTOV A V 72
KOTYREV YE A 26
KOVAL'CHUK YU V 81
KOVALEV A A 27
KOVALEV G V 70
KOVALEV N N 24,27
KOVNER M A 30
KOWALSKI S 79
KOZAK A A 42
KOZENKOV V M 26,45,46
KOZIK YE A 74
KOZINA G S 3
KOZLOUSKA D 54
KOZLOV S F 58
KOZLOVSKIY D A 68
KOZLOVSKIY V I 61
KOZUBOVSKIY V R 1

KOZULIN A T 61
KRASIL'NIKOV S S 11
KRASNOV A A 24
KRASOVSKIY V S 79
KRAUYALIS R YU 73
KRAVCHENKO A B 25
KRAVCHENKO V B 4
KRAVCHENKO V I 56
KREKOV G M 42
KREPELKA J 80
KREPOSTNOV P I 21
KRISTALLOV A R 61
KROCHIK G M 28
KROKHIN O N 78,79
KROLEVETS N M 46
KRUGLOV B V 78,79
KRUGLYY A YE 9
KRUPNOVA L V 78
KRUTYAKOVA V P 77
KRUZHALOV S V 1
KRYLOV V N 29
KRYZHANOVSKIY V I 23
KUBAREV A V 83
KUBICEK Z 39
KUCHARSKI M 45
KUCHEROV A N 15
KUCHIKYAN L M 40
KUCHINSKIY V I 3
KUCH'YANOV A S 33
KUDRYAVTSEV N N 15
KUDRYAVTSEV YE M 16
KUDRYAVTSEV YU A 17
KUEHLKE D 6
KUKHAREV V N 13
KUKHARSKIY A A 44
KUKHTAREV N V 48
KUKIBNYY YU A 18
KULAKOV V I 4
KULESH V P 61
KULISH N R 54
KULLA P 45
KULYMANOV A V 38
KURAMIN YE I 53
KURANOV A L 11
KURATEV I I 4
KURBATOV A A 32
KURBATOV L N 3
KURDYUMOV O A 43
KUROCHKINA N N 49
KUTSAROV S I 23
KUTSENKO A V 79
KUTSENKO YA P 31
KUVSHINSKIY N G 47,49
KUZ'MICHEV V M 25,54
KUZNETSOV P D 42
KUZNETSOV V P 41
KUZNETSOVA D N 17
KUZOVKOVA T A 27
KUZYAKOV YU YA 62
KVAPIL J 34
KVAPIL JOS 34
KVASNIKOV YE D 45

L

LABUDIN G I 74
LABZOVSKIY L N 71
LADAGIN V K 16
LAKOBA I S 12,17
LATYNIN YU M 25,54
LAVRENCIC B 71
LAVRENT'YEV V V 23
LAVROV V N 2,40
LEBEDEV O L 1
LEBEDEV V V 29
LEBEDEV YE I 61
LEBEDEVA N N 71
LEKHTSIYER YE N 61
LEMANOV V V 24
LEND'YEL V I 79
LEONOV A G 3,17
LEONTOVICH A M 58
LESHCHEV A A 45,48
LESHENYUK N S 21
LETOKHOV V S 49,50,59
LETOV D A 71
LEVIN A B 65
LEVIN A D 57
LEVIT B I 8
LEYBA S P 23
LIBORTS G G 28
LIKHACHEV A P 77
LIMPOUCH J 80
LINNIK V M 16
LIPATOV A S 19
LIPATOV N I 74
LIPOVSKIY I M 71
LISITSA M P 54,68,70
LISITSYN V N 51
LITOVCHENKO V G 72
LITVINOV L A 34
LIVSHITS M G 39
LIZAK S S 18
LOBANOV A N 19
LOBANOV B D 1
LOGGINOV A S 27
LOGINOV A P 53
LOGUNOV A N 16
LOKHOV YU N 75
LOPANTSEVA G B 10,19
LOPASOV V P 68
LOSEVA T V 74
LOSHKAREVA N N 46
LOTKOVA E N 11
LOYKO V A 61
LUKIN I P 41
LUKOSHYUS I P 74,75
LUK'YANCHUK B S 73
LUK'YANETS YE A 1
LUK'YANOV G A 16
L'VOVA N A 83
LYSIKOV YU I 75

M

MAGDICH L N 24
MAKAROV V N 15
MAKAROV YU P 52
MAKOWSKA E 54
MALACHOWSKI M 24
MALASHKEVICH G YE 32
MALDUTIS E K 75
MALININ A N 17
MALININ B G 6
MALYSHEV V A 84
MALYSHEVA N V 24
MALYSHEVSKIY V S 11
MALYUTA D D 9
MAMONOV S G 16
MANAKOV N L 31,62
MANENKOV A A 69
MANITA O F 19,25
MAN'KO M A 3
MANOSHKIN YU V 62
MANUSHEVICH G N 27
MARCHENKO V G 22,50
MARGOLIN A D 11
MARGOLIN L YA 81
MARICARU M 69
MARKOV P I 40
MARKOV V B 45,48
MARKOVA S V 14
MARSZALEK T 6
MASHCHENKO V YE 71
MASHINSKIY E I 62
MASLOV V V 5
MATVEYEV I N 24
MATVEYEV O I 49,62
MATVEYEV R F 40
MATYUK V M 49
MATYUSHKIN E V 4
MAYOROV S A 45
MAZAN'KO I P 51
MAZURENKO YU T 6,10
MEDNIKOV D A 25
MEDVED' N V 53
MEDVEDEV A A 17
MEDVEDEV R N 81
MEGRELISHVILI R SH 42,44
MEKHRYAKOVA N G 1
MELIKYAN K S 43
MELLE W 75
MEL'NIKOV L A 19,61
MERZON G I 58
MESTECHKIN M M 6
MESYATS G A 17
METEV S M 73
MEZHEVOV V S 9
MIHAJLOVICH P 71
MIKABERIDZE A A 46
MIKHALEVSKIY V S 19
MIKHAYLOV N I 23
MIKHAYLOV V V 15
MIKHAYLOV YU A 78,79
MIKHAYLOVA T P 60
MIKHAYLOVSKIY YU K 80
MIKHEYEV L D 18,22
MIKOV S N 61
MILANICH A I 17
MILINEVSKI N 27
MILKOVICH LJ 71
MINENKOV V D 15
MIRKIN L I 74
MIRONOV O N 57
MIRONOV V L 42
MIRZAYEV A T 78
MISHIN G I 15
MISHIN V I 49
MITEV S I 23
MITEVA M 27

MIT'KIN M I 24
MIT'KIN V M 4
MITROFANOVA T I 70
MITSEN K V 69
MIZIN V M 1
MIZYUKIN A A 52
MKRTCHYAN M M 19
MOISEYEV S S 30
MOLCHANOV M I 51
MOLIN YU N 49
MOLOCHEV V I 2
MOLOTKOV L I 80
MORACHEVSKIY N V 30,75
MORDUKHAYEV A R 71
MORGUNOV A N 62
MORICHEV I YE 76
MOROZOV B N 83
MOROZOV I A 5
MOROZOV V N 2
MOROZOVA S G 22
MOSKALENKO S A 71
MOSTOVNIKOV V A 6
MOTKIN V S 6
MOTULEVICH G P 69
MOTYLEV S L 80
MOVSHEV V G 49,50
MOZHAROVSKIY A M 58
MOZOL' P YE 68,70
MUELLER V R 7
MULENKO S A 58
MUMLADZE V V 43,46,48
MUSATOV M I 35
MYASNIKOV A F 3
MYASNIKOV I A 38
MZHEL'SKIY A A 51

N

NAATS I E 42
NAGAYEV A I 25
NAGIBAROVA I A 28
NAGORNAYA N I 62
NAKAIDZE D M 38
NAPARTOVICH A P 8
NARCZYK W 55
NASIBOV A S 39,61,84
NAUMENKO I G 5
NAUMENKO K P 37
NAUMOV B L 48
NAZARENKOV F A 48
NEBOLA I I 72
NEDAVNIY A P 59
NEDRANETS YU I 35
NEEF E 7
NEMCHINOV I V 74,81
NEPOKOYCHITSKIY A G 62
NESTERENKO T M 34
NEVDAKH V V 21
NEVEROV V G 16
NIDAYEV YE V 70
NIKITCHENKO V M 5
NIKITIN V V 2
NIKITIN V YE 62
NIKITIN YU YE 70
NIKOLAYEV F A 22
NIKOLAYEV M V 53
NIKOLAYEV V M 25
NIKOLIC P M 71
NIKOL'SKIY O A 7
NIKULIN N G 28
NIKULIN V YA 78
NITOCHKIN N A 16
NIZOVSKIY V L 8,78
NIZ'YEV V G 10
NOSACH O YU 22
NOSKIN V A 60
NOVIKOV S S 15
NOVIKOV V YE 30
NOVIKOVA V V 74
NOVOBRANTSEV I V 8,11
NUTRENKO O I 63

O

OCHKIN V N 11
ODULOV S G 45,46,48,55
OGANISYAN S 76
OGLUZDIN V YE 17
OL'SHEVSKIY YU N 79
OLSZEWSKA M 25
ONOKHOV A P 76
OPACHKO I I 14
OPALENIK V I 17
ORAYEVSKIY A N 14,36,58
ORLAMUENDER R 52
ORLOV A A 63
ORLOV L N 21
ORLOV V K 81
ORLOVA N G 48
OSETROV V P 78
OSTANIN V V 73
OSTROVSKAYA L M 73
OSTROVSKAYA G V 80,81
OSTROVSKIY M A 50
OSTROVSKIY YU I 63
OTCHIK YA M 60
OVCHAR V V 44
OVCHINNIKOV V M 5
OVECHKIS YU N 46
OVSYANNIKOV V D 31,62
OWSIK J 31

P

PADUCH M 25,79
PAKHOMOV L N 1,25
PAL' A F 19
PANASYUK L M 27,43
PAN'KO YE V 5
PANTEL CH 75
PANTELEYEV V V 77
PAPAKIN V F 19
PAPERNYY S B 27
PAPP V Z 18
PAPULOVSKIY V F 33
PAPYRIN A N 56,63
PARASHCHUK V V 2
PARFENOV V A 23
PARYGIN V N 19,24,25,29
PASHCHENKO V Z 36
PASHKO S A 2
PASMANIK G A 44
PASTOR A A 33
PATRON A 57
PAVLOVA N O 16
PECHENOV A N 61
PEKAR G S 46,70
PELEKHATYY V M 2
PELIPENKO V P 5
PENKIN N P 11
PEREDEREYEVA S I 46
PERESH YE YU 72
PEREVOZNOV A F 19
PERINA J 28
PERINOVA V 28
PERNER B 34
PERSHIN S M 29
PERSIANTSEV I G 19,20
PETNIKOV A YE 47
PETRASH G G 13,14
PETROV A K 49
PETROV A S 57
PETROV A V 9,38,79
PETROV G D 76
PETROV M P 24,27,47
PETROV R L 15
PETROV V D 46
PETROVSKIY V N 18
PETRUKHOV V A 1
PETRUN'KIN V YU 1,25
PETUKH M L 59,63,67
PILIPOVICH V A 63
PIOTROWSKA J 25
PISANSKIY A I 70
PISKUNOV A K 14
PIS'MENNYY V D 20
PITERKIN B D 4
PIVOVAR V A 9,10
PKHALAGOV YU A 42
PLASTININ V V 8
PLATONENKO V T 19
PLESHANOV P G 36
PLETNEV N V 51,56,78,79
PLOTNIKOV A F 25,46
PODGAYETSKIY V M 26
POGOSYAN P S 32
POKASOV V V 42
POKORA L 25,79
POKROVSKIY A N 33
POLETAYEV B V 24
POLIVANOV YU N 30
POLTAVETS V N 6
POLUNIN YU P 13
POLUSHKIN V M 20
POMERANSKIY A A 51,63
PONATH H E 31
PONOMARENKO A G 60
POPA V N 27
POPOV I A 51
POPOV L N 29
POPOV N I 74
POPOV S 27
POPOV YU M 40
POPOVA M P 81
POPOVA T YA 32
PORTNOY YE L 3
POSUDIN YU I 30
POTAPOV M G 67
POTAPOV V K 49
POTAROCHA A V 52

POYZNER B N 53
POZHIDAYEV V N 41
PREDEIN A L 56
PREOBRAZHENSKIY M A 32
PRILEPIN M T 82
PRIYEZZHEV A V 64
PRIZ I A 54
PROK A 64
PROKHOROV A M 2,37,40,52
73,76
PROSHIN V A 64
PROTASEVICH M Z 39
PROTSENKO YE D 10,18
PROTSKO S V 28
PUCHKOV V N 53,64
PUSTOVALOV V V 9,78,81
PYATNITSKIY L N 81

R

RADOSLAVOVA I 4
RAKHIMOV A T 20
RAKITINA L A 45
RAMAZANOVA G S 59
REKSNIS YU Y 73
RESHETNYAK S A 35
REYNOV N M 60
RICHTER G 64
RINKEVICHYUS B S 64,65
ROBU S V 43
RODE A V 78
RODIN V N 73
RODIONOV A N 46
RODIONOV N B 14,15
ROGULICH V S 14
ROMANOV A V 78
ROMANOV S M 51
ROMANOV YU F 45
ROMANOVSKIY YU M 64
ROSHKOVAN G L 65
ROSSOMAKHO F V 66
ROTARU A KH 71
ROVINSKIY R YE 81
ROZANOV N N 29
ROZANOV V B 22
ROZANTSEV V A 77
ROZHANSKIY V A 39
ROZUMNYUK V I 65
RUBIN A B 36
RUBIN L B 36
RUBINOV A N 6
RUBINOV YU A 10
RUDENKO O V 31
RUDENKOVA V A 58
RUDNEVSKIY V S 3
RUDNITSKIY A L 65
RUKMAN G I 50
RUMYANTSEV K YE 38
RUNDA V 46
RUSANOV S YA 37
RUTKOWSKI S 67
RYABIKOV S V 72
RYABOV YE A 49
RYABTSEV G I 2
RYBIN V N 4
RYBINSKI J 24
RYZHOV V V 23

S

SABITOV M S 78
SACHKOV V I 65
SADOVSKAYA E I 51
SAGAYDAK V I 43
SAGITOV S I 17
SAKHAROV I YE 12
SALIVON G I 68
SAL'KOVA YE N 46,55
SAMARTSEV V V 47
SAMOKHIN A A 74
SAMOKHVALOV A A 46
SAMOKHVALOV I V 42
SAPELKIN N V 20,21
SASOV V N 24
SATSUNKEVICH V D 63
SATYBOLDIYEV T B 78
SAUTENKOV V A 2
SAVCHENKO M A 78
SAVINOV V P 76
SAVINOVA N G 53
SAXL L 40
SAYCHUK YA D 7
SEDEL'NIKOV V A 19,61
SEGIET S 67
SELEZNEV V N 46
SELEZNEVA L A 14
SEMENOV A T 39
SEMENOV L P 41
SEMENOV O G 78
SEMENOV P M 48
SEMENOV YU P 65
SEMENOVSKAYA N A 54
SEMYANISTYY A V 27
SENASHENKO M V 73
SENATSKIY YU V 4,51,56
78,79
SENYUKOV A I 7
SERDOBINTSEV P YU 33
SEREBRYAKOV V A 23,27
SERKIN V N 33
SEROBABIN A T 37
SEROV V V 22,23
SHABASHOV V I 8,78
SHADRIKOV O A 36
SHAKIROV A KH 46
SHAMFAROV YA L 35
SHAPOSHNIKOV YU N 65
SHAPOVALOV V M 40
SHARKOV V F 11,14
SHATALIN I D 43,48
SHATALIN S V 12
SHATALOV YU P 76
SHATOV V A 26
SHCHAVELEV O S 4
SHCHEGLOV V A 14
SHCHEGLOV V B 13
SHCHELEV M YA 52
SHCHEMYAKIN I A 17
SHCHERBAK YU M 43
SHCHERBINA YU A 66
SHELEMIN YE B 50
SHELEPIN L A 35
SHEMCHUK YE S 39
SHEPELEV A V 55
SHEREMET'YEVSKIY N N 79
SHESTAKOV A V 4
SHESTOV S A 56
SHEVAKIN YU F 73
SHEVANDIN V S 32
SHEVCHENKO YE G 3
SHEVCHIK T I 39
SHEVEL' S G 2
SHEVERA V S 17,18,20
SHEYNKMAN M K 46
SHIKANOV A S 81
SHIPOVA N A 72
SHIROKANOV A D 66
SHKUNOV V V 49
SHMAREV YE K 47
SHMELEV A K 30
SHMELEV V M 11
SHMIGLYUK M I 72
SHMOYLOV N F 66
SHNITSER P I 24
SHOR M I 61
SHTEYNGOL'TS Z I 55
SHTEYNSHLEYGER V B 61
SHTYRKOV YE I 47
SHUAIBOV A K 17,18
SHUBADEYEVA L P 81
SHUBIN A A 69
SHUBIN V E 25
SHULAKOV V A 58
SHUL'MAN S G 44
SHUR YA SH 73
SHUVALOV V V 25,29
SHVARTS K K 43
SHVINDT N N 80
SIDAK P I 40
SIDORIN A V 69
SIDOROV S V 56
SIDOROVICH V G 44,45,48
SIKORSKAYA L N 67
SILIN V P 78,81
SIMONOV A P 6
SIMONYAN V G 32
SINICHKIN YU P 30
SINIS V P 38
SINITSA L N 68
SINITSYN A M 10
SINITSYN G V 5
SIROTINKIN S P 33
SIRUTKAYTIS V 33
SIVASH L V 8
SKIBA P A 62
SKLIZKOV G V 51,56,78,79
SKOBELKIN V I 74
SKRIBANOV YE V 66
SKVORTSOV M N 50
SLAVENAS I YU 5
SLIVKA V YU 72
SMIRNOV E 27
SMIRNOV I A 44
SMIRNOV V I 66
SMIRNOV V N 77,81
SMIRNOV V S 84
SMIRNOVA T A 35
SMIRNOVA Z A 4
SMOLENSKIY G A 24
SMYSLOV YE F 77

SNEGOV M I 32
SNOPKO V N 53
SOBOLEV A G 26
SOBOLEV N N 11,16
SOBOLEV V S 66
SODOMKA L 55
SOKOLOV A V 12,41
SOKOLOV V K 82
SOKOLOVA E B 68
SOKOLOVSKIY R I 75
SOKOVIKOV V V 11
SOLDATOV A N 13
SOLOGUB V P 8
SOLOKHA A F 33
SOLOMATIN V S 25,29
SOLOMONOV V I 13
SOLOUKHIN R I 63,67
SOLOV'YEV A A 8,57
SOLOV'YEV G N 78
SOLOV'YEV N A 81
SOLOV'YEV V YE 3,27
SONIN A S 54
SONIN A YU 19
SOROKA A M 9,18
SOROKA S I 42
SOSKIDA M T I 20
SOSKIN M S 45,47,48,55,56
SOSNIN V P 38
SOSOV YU M 24
SOTIN V YE 43
SOYFER V A 85
SPIKHAL'SKIY A A 40
SPYTKOWSKI W 54
STAMENOV K 4
STANEVA T G 5
STANKOV K 4
STARIKOV A D 4
STAROBINA E I 61
STARODUB V P 12,14
STARODUBTSEV E V 45
STARODUBTSEV N F 58
STAROKON' V I 42
STAROSTIN A N 10,20
STAROSTIN A P 19
STASEL'KO D I 44,48,68
STAVROVSKIY D B 18
STEFANOVICH S YU 28
STENCHIKOV G L 78
STEPANOV A I 6
STEPANOV B M 50,52,54,65
STEPANOV S I 47
STEPANOV YU YU 16
STERLIGOV V A 48,76
STETSENKO A I 35
STETSENKO T P 69
STOL'NITS M M 19
STOLOVITSKIY YU M 36
STOLYARENKO A V 54
STRIGUN V L 68
SUBBOTIN L K 79
SUCHKOV A F 58
SUCIU P 66
SUKHANOV V I 47
SUKHOVERKHOVA L G 46,55
SUKOV A I 32
SUSHENKO A N 51
SUSHKEVICH T N 68
SUSHKIN V N 8,78
SUSLENNIKOV L A 66
SUSLIKOV L M 72
SUSLOV A M 25
SVERDLOV B N 3
SVERDLOV L M 71
SVETLICHNYY I B 15
SVIDRO V A 65
SVIRIDOV A N 12,76
SVIRIDOV A V 12
SVISHCHEV V S 80
SYCHUGOV V A 40
SYT'KO L V 27
SZALAY M 40

T

TANASHCHUK M P 72
TANTSYURA L YA 47
TARANENKO V B 29
TARASENKO V F 17
TARASHCHENKO D T 44
TATARINTSEV L V 12
TAUBKIN I I 38
TEKAYEV E B 46
TELEGIN G I 55
TEREKHOVA D S 65
TERUKOV YE I 55
TESTOV V G 15
TEUMIN I I 38
TIKHOMIROV I A 67
TIKHOMIROV V V 8
TIMOFEYEV A L 71
TIMOFEYEV A B 76
TIMOFEYEV M A 20
TIMOFEYEV N T 32
TIMOSHIN YU V 85
TITOV A A 56
TITOV A D 28
TKACHENKO V S 54
TKACHUK P N 68
TOKAREVA A N 22
TOLKACHEV A V 60,65
TOLMACHEV YU A 3
TOMYASHEVSKIY YU F 63
TOROPOV A K 51,64
TRENEVA YE G 20
TROFIMOV A N 13
TROPIKHIN YU D 12
TROST S 28
TROSTINA N P 74
TRUSHIN S A 20
TRUSHIN YE V 73
TSARAPAYEVA YE I 73
TSARYUK O V 53
TSITROVSKIY V V 31
TSNOBILADZE N A 24
TSOTSKHALISHVILI N V 46
TSYMSHITS YU I 16
TSYPIN M I 73
TUCHIN V V 14,19
TUKMACHEV G V 62
TUL'SKIY S A 41
TUMANOV B N 8
TUMANOV O A 20
TUNIK YU V 15
TUROVSKIY N I 39
TURYANITSA I D 31
TUSOV V B 36
TYAGAY V A 48,76
TYURIKOV D A 2
TYURIN YE L 75

U

UGOZHAYEV V D 33
URLIN V D 16
USHAKHIN V A 3
USHAKOV S N 79
USOVA V M 22
USTINOV N D 24
UTOCHKIN K P 41
UVAROV A A 24

V

VAGIN L N 47
VAGIN S P 10
VAKHNENKO V A 11
VALYANSKIY S I 74
VANIN V A 48
VANTSAN V M 71
VARDOSANIDZE Z V 46
VARD'YA V P 40
VASCAN T 69
VASILENKO L S 50
VASILIK N YA 11
VASIL'YEV L A 12
VASIL'YEVA L G 51
VAS'KOVSKIY YU M 81
VAYTKUS YU 72
VEDENEYEV A A 16
VEDLIN B 28
VELETSKAS D M A 72
VELICHANSKIY V L 2
VERESH M F 14
VESELOV D V 12
VINETSKIY V L 48
VINOKUROV G N 21
VINOKUROV N I 23
VITIU YE V 72
VITRIKHOVSKIY N I 2
VITSINSKIY S A 4
VLASENKO N A 48
VOKHMIN P A 12,14,34,81
VOLAN'SKIY P 67
VOLKOV A YU 16
VOLKOV V I 44
VOLOSHCHENKO YU I 43
VOLOSHINOV V B 24
VOLOSOV V D 29
VOL'TER V G 76
VOLTSIT V V 72
VOLYAR A V 40
VOROBEYCHIKOV E S 29
VOROB'YEV N S 52
VOROB'YEV S P 47
VOROB'YEV V G 43
VOROB'YEVA N N 81
VORONIN E S 25,29
VORONTSOV S S 10
VORONYUK L V 14
VOROSHILOV YU V 72

VOROZHEYKINA L F 43,48
VORZOBOVA N D 48
VOTINOV M P 4
VOYTSEKHOVSKIY A V 57,68,69
VUKS M F 69
VYSIKAYLO F N 16
VYSKUBENKO B A 16

W

WENDLAND K H 48
WERESZCZYNSKI Z 79
WIEDERHOLD G 77
WOLSKI R 54
WRZESIEN M 67

Y

YABLONSKIY G P 2
YACHNEV I L 20,21
YAKOBI YU A 10
YAKOVLENKO S I 11,22
YAKOVLEV V A 67
YANKOVSKIY A A 59,63,66,77
YANUSHEVSKIY N I 2
YARASHYUNAS K 72
YAREMKO A M 70
YAROSH A K 8
YAROSHENKO N G 51
YARTSEV YU V 8,78
YASHIN V YE 27
YASINSKIY V M 55
YASTREMSKIY A G 23
YEGOROV S G 24
YEGOROV V S 33
YELINOVA V G 67
YELISEYEV P G 2,3,40
YELISEYEV S I 22,23
YELISEYEV V B 72
YEMEL'YANOVA G M 4
YEREMENKO A S 6
YEREMEYEVA YE P 5
YEREMIN A D 16
YEROKHIN A I 30
YEROKHIN N S 30
YESEPKINA I A 25
YEVDOKIMOV A A 33
YEVSTIGIYEYEV V B 36
YEVTYUKHOV K N 1
YUDIN V I 7
YUGAY K N 8
YUL'BERDIN YU F 27
YUOZAPAVICHUS A S 5
YURCHENKO V A 38
YURCHUK E F 76
YUSHIN A S 37
YUSHIN N K 24

Z

ZABOLOTNYY M A 49
ZABOROVSKIY L A 47
ZAID E G 26
ZAKELJ J 5,28
ZAKHARCHENKO A I 51
ZAKHARCHENYA B P 55
ZAKHAROV A I 67,85
ZAKHAROV S D 78
ZALESSKIY V YU 21
ZAPESOCHNYY I P 12
ZARGAR'YANTS M N 38
ZAVERTYAYEV M V 11
ZAYTSEV L M 73
ZEBRUN J 55
ZEL'DOVICH B YA 49
ZEMSKOV YE M 30
ZHABOTINSKIY M YE 39
ZHAROV V P 59,67
ZHDANOK S A 20
ZHELTOV V B 4
ZHEVLAKOV A P 20,21
ZHILINSKAS E 33
ZHILIONIS A A 73
ZHILKIN G P 79
ZHINZHIKOV G M 16
ZHIRYAKOV B M 74
ZIBOROV A I 71
ZIBROV A S 2
ZIMMERMANN R 3
ZOLIN V F 31
ZOLOTOREV M S 57
ZOLOTOV YE M 2
ZON B A 32,50
ZOROV N B 62
ZUBKOV V M 17
ZUBKOV V V 24
ZUBOVA YE A 56
ZUBRILIN N G 53
ZUYEV V A 72,73
ZUYEV V S 18,22
ZUYEV V YE 42,68
ZVEREV M M 3
ZVERKOV M V 2
ZVEZDIN V S 79
ZVEZDOVA N P 68
ZYRYANOV L P 40
ZYSINA L YU 73

R
58561