

CONFERENCE OPENING. PLENARY

Wednesday, February 01, 2017, 10.00

Room 406

1. KRASNOK A.E.<sup>1,2</sup>, MAKAROV S.V.<sup>2</sup>, SAMUSEV A.K.<sup>2</sup>, KIVSHAR Yu.S.<sup>2,3</sup>, BELOV P.A.<sup>2</sup>  
<sup>1</sup>University of Texas, Austin, USA  
<sup>2</sup>ITMO University, Saint Petersburg  
<sup>3</sup>Australian National University, Canberra, Australia  
**Silicon nanophotonics**
2. RYABUSHKIN O.A.<sup>1,2</sup>  
<sup>1</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
<sup>2</sup>Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS  
**Conception of the equivalent temperature in photonics**
3. MOLCHANOV V.Ya., YUSHKOV K.B.  
National University of Science and Technology "MISIS", Moscow  
**Processing of ultrafast laser fields by acoustooptic methods with subterahertz frequency**
4. KRISHTOP V.V., GONCHAROVA P.S., TOLSTOV E.V., MAKSIMENKO V.A., LIVASHVILI A.I., LITVINOVA M.N., KIREEVA N.M., EFREMNKO V.G., SYUY A.V., POPOVA A.V.  
Far Eastern State Transport University, Khabarovsk  
**Controlled interference filter for broadband radiation**

POSTERS 1

Wednesday, February 01, 2017, 12.00

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POSTERS 2

Wednesday, February 01, 2017, 12.00

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Meeting 1

Wednesday, February 01, 2017, 13.00

Room 406

5. ANDREEV A.L.<sup>1</sup>, ANDREEVA T.B.<sup>1</sup>, KOMPANETS I.N.<sup>1,2</sup>  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow  
<sup>2</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Conditions of achieving the hysteresis-free continuous gray scale in a display cell with the helix-free ferroelectric LC**
6. SIDOROV N.V., PALATNIKOV M.N.  
I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region  
**Optical properties and secondary structure of lithium niobate single crystals**
7. MAMBETOVA K. M., ARESTOV S.I., ORLIKOV L.N., SHANDAROV S.M., KULESHOV Yu.V.<sup>1</sup>  
Tomsk State University of Control Systems and Radioelectronics  
<sup>1</sup>Crystal T Ltd, Tomsk  
**Dynamics of pyroelectric generation of electron beam by monocrystal samples of lithium niobate**
8. MASHKOVICH E.A., SYCHUGIN S.A., BAKUNOV M.I.  
Lobachevsky State University of Nizhny Novgorod  
**Conversion of ultrashort laser pulses into narrow-band terahertz radiation in a bulk lithium niobate crystal**
9. NALBANTOV N.N., STROGANOVA E.V., GALUTSKIY V.V.  
Kuban State University, Krasnodar  
**Threshold parameters of 1.5  $\mu\text{m}$  laser generation in  $\text{LiNbO}_3:\text{Er}$  and  $\text{LiNbO}_3:\text{Er, Yb}$  non-uniformly doped crystals**
10. KAPLUNOV I.A., GERASIMOV V.V.<sup>1</sup>, KOLESNIKOV A.I.  
Tver State University  
<sup>1</sup>Budker Institute of Nuclear Physics of SB RAS, Novosibirsk  
**Optical transmission of single crystalline germanium in the region of 40–700  $\text{sm}^{-1}$**
11. NOVIKOV V.B., MAYDYKOVSKIY A.I., MANTSYZOV B.I., MURZINA T.V.  
Lomonosov Moscow State University  
**The Borrmann effect in one-dimensional photonic crystals in the Laue geometry**
12. CHUMANOV M.V.<sup>1,2</sup>, PARGACHEV I.A.<sup>1</sup>, SEREBRENNIKOV L.Ya.<sup>1,2</sup>, KRAKOVSKY V.A.<sup>1,2</sup>  
<sup>1</sup>Crystal T Ltd, Tomsk  
<sup>2</sup>Tomsk State University of Control Systems and Radioelectronics  
**Devices for second harmonic generation based on periodically poled RKTP crystal**
13. VALITOVA A.F.<sup>1</sup>, KORYUKIN A.V.<sup>1,2</sup>, SALAKHOV M.Kh.<sup>1,2</sup>  
<sup>1</sup>Kazan Federal University  
<sup>2</sup>Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan  
**Extraordinary reflection hybrid photonic-plasmonic crystal**
14. BIKBAEV R.G.<sup>1</sup>, PANKIN P.S.<sup>1</sup>, VYUNISHEV A.M.<sup>1,2</sup>  
<sup>1</sup>Siberian Federal University, Krasnoyarsk  
<sup>2</sup>Kirensky Institute of Physics SB RAS, Krasnoyarsk  
**The optical Tamm states at the interface between a photonic crystal and nanoporous silver**

15. KOZLOV A.A., ABDULLAEV S.D., KARPOV V.M., IVANOV A.V.<sup>1</sup>  
*Moscow Technological University (Institution of Fine Chemical Technology)*  
<sup>1</sup>*Lomonosov Moscow State University*  
**Sensors for organic solvents based on photonic crystals**
16. KRAISKII A.A., KRAISKII A.V.  
*Lebedev Physical Institute of the RAS, Moscow*  
**About a possible mechanism to increase the probability of low-energy nuclear reactions in the crystal structures**

Meeting 2

Wednesday, February 01, 2017, 13.00

Room 407

17. DAYNEKO S.V., HENSBEE A.D., WELCH G.C.  
*University of Calgary, Alberta, Canada*  
**Green solvent processed fullerene-free organic solar cells with efficiency over 4.8%**
18. ANTSYGIN V.D.<sup>1</sup>, MAMRASHEV A.A.<sup>1,2</sup>, NIKOLAEV N.A.<sup>1,2</sup>, POTATURKIN O.I.<sup>1,3</sup>  
<sup>1</sup>*Institute of Automation and Electrometry SB RAS, Novosibirsk*  
<sup>2</sup>*Institute of High current Electronics SB RAS, Tomsk*  
<sup>3</sup>*Novosibirsk State University*  
**Investigation of photoinduced semiconductor-metal phase transition in VO<sub>2</sub> films by spectroscopic methods**
19. BEZRUCHENKO V.S.<sup>1,2</sup>, MAHILNY U.V., STANKEVICH A.I., MURAVSKY A.I.<sup>1</sup>, MURAVSKI A.I.<sup>1</sup>  
<sup>1</sup>*Belarusian State University, Minsk*  
<sup>2</sup>*Institute of Chemistry of New Materials of NAS of Belarus, Minsk*  
**Gradient aligning layers for liquid crystal lenses**
20. SHAPIRO B.I., NEKRASOV A.D., MANULIK E.V.  
*Moscow Technological University (Institution of Fine Chemical Technology)*  
**Metallocomplexis J-aggregates polymethine dyes as photosensors in organic electronics**
21. ADAMOV G.E., GREBENNIKOV E.P., POROSHIN N.O., SHMELIN P.S.  
*JSC «CSRIT «Technomash», Moscow*  
**Influence nanoparticles Ag/SiO<sub>2</sub> on BR photocycle**
22. GORYAEV M.A.  
*The A.I. Herzen State Pedagogical University of Russia, Saint Petersburg*  
**Dye sensitized photoeffect in silicon**
23. PICHUGIN I.S., IGNATIEV A.I.  
*ITMO University, Saint Petersburg*  
**Chlorine photo-thermo-refractive glass**
24. BICHKOV A.B., KOZHINA A.S., MITYUREVA A.A., REZIKYAN A.G., SMIRNOV V.V.  
*Saint Petersburg State University*  
**Dynamics of photoionization of lithium atom under the expose of strong, ultrashort X-ray radiation**
25. BUSHMAKIN V.S.<sup>1,2</sup>, COJOCARU I.S.<sup>1,2,3</sup>, TSYGANOK V.V.<sup>1,2,3</sup>, LUCHNIKOV I.A.<sup>1,2,3</sup>, DAVLETOV E.T.<sup>1,2,3</sup>, KUBLIKOVA D.N.<sup>1,2</sup>, PYATCHENKOV S.V.<sup>1</sup>, SUKACHEV D.D.<sup>1,4,5</sup>, AKIMOV A.V.<sup>1,3,4</sup>  
<sup>1</sup>*Russian Quantum Center, Skolkovo, Moscow region*  
<sup>2</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
<sup>3</sup>*Texas A&M University, City of College Station, USA*  
<sup>4</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>5</sup>*Harvard University, Cambridge, USA*  
**Light assisted collisions in ultracold thulium**
26. BELKO N.V.<sup>1</sup>, SAMTSOV M.P.<sup>1,2</sup>, GUSAKOV G.A.<sup>1,2</sup>, TARASOV D.S.<sup>1,2</sup>  
<sup>1</sup>*Belarusian State University, Minsk*  
<sup>2</sup>*Sevchenko research institute of applied physical problems, Minsk, Belarus*  
**Spectral properties of nanostructures of indotricarbocyanine dye**
27. ALIEV S.A., TROFIMOV N.S., CHEKHLOVA T.K.  
*Peoples' Friendship University of Russia, Moscow*  
**Properties of gel-method synthesized titanium dioxide films**
28. KONSTANTINOVA E.I.<sup>1,2</sup>, BRYUKHANOV V.V.<sup>1</sup>  
<sup>1</sup>*Immanuel Kant Baltic Federal University, Kaliningrad*  
<sup>2</sup>*Kaliningrad State Technical University*  
**Nonradioactive resonance energy transfer between anthracene molecules and CdZnS<sub>2</sub> and CdZnSeS quantum dots in polymethylmethacrylate films**

Meeting 3

Wednesday, February 01, 2017, 16.00

Room 406

29. VIKULIN D.V., ALEXEYEV C.N., YAVORSKY M.A.  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
**A new mechanism of acousto-optic interaction in optical fibers**
30. POROKHOVNICHENKO D.L., DYAKONOV E.A., VOLOSHINOV V.B.  
*Lomonosov Moscow State University*  
**Optimal parameters of acousto-optical interaction in KRS-5 crystal**
31. KUPREYCHIK M.I., BALAKSHY V.I.  
*Lomonosov Moscow State University*  
**Acousto-optic interaction near optical axes in hyrotropic biaxial crystals**
32. ANTONOV S.N., FILATOV A.L.  
*Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS*  
**Acousto-optic technique for laser beam shaping**

33. PETROV N.I., PUSTOVOIT V.I.  
*Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow*  
**Acousto-optic resonator with ultra-narrow bandwidth**
34. IVANOV S.I., LAVROV A.P., MOLODYAKOV S.A., SAENKO I.I.  
*Peter the Great Saint-Petersburg Polytechnic University*  
**Two-coordinate acousto-optic processor for estimation of parameters of radio emission from pulsars**
35. MUKHAMADIEV A.A.  
*Ufa State Aviation Technical University*  
**Creating all-optical information-measuring system based on the acousto-optic elements**
36. BELKIN M.E., KLYUSHNIK D.A.  
*Moscow Technological University (MIREA)*  
**Use of photonic approach for super-wide bandwidth RF signal interconnects construction**
37. ZLOKAZOV E.Yu., NEBAVSKIY V.A., STARIKOV R.S.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
**Mathematical modeling of microwave photonic sampling WDM system**
38. VINOGRADOVA I.L., SULTANOV A.Kh., ANDRIANOVA A.V.  
*Ufa State Aviation Technical University*  
**Principles of fiber-optic chirping devices and functions performed by device**
39. AVERCHENKO A.V.<sup>1</sup>, ZOTOV A.M.<sup>1</sup>, KOROLENKO P.V.<sup>1,2</sup>, PAVLOV N.N.<sup>1</sup>  
<sup>1</sup>*Lomonosov Moscow State University*  
<sup>2</sup>*Lebedev Physical Institute of the RAS, Moscow*  
**The escalation of the wavefront disturbances of the light beams in transmit and receive paths of optical systems**
40. ZACHINYAEV Yu.V., PLIVAK S.A., SHUMILIN A.S.  
*Southern Federal University, Taganrog*  
**Secured data transmission system based on the VLC-technology with PLC interface**

Meeting 4

Wednesday, February 01, 2017, 16.00

Room 407

41. BORSHCHEV O.V., SKOROTETSKY M.S., SURIN N.M., PONOMARENKO S.A.  
*Enikolopov Institute of Synthetic Polymer Materials of RAS, Moscow*  
**Nanostructured organosilicon luminophores as a new class of organic luminophores**
42. KUZMIN N.N.<sup>1,2</sup>, BOLDYREV K.N.<sup>2</sup>, DOBRETSOVA E.A.<sup>2</sup>  
<sup>1</sup>*Lomonosov Moscow State University*  
<sup>2</sup>*Institute for Spectroscopy of the RAS, Troitsk*  
**Study of luminescent properties of gallium borates with the huntite structure**
43. KUROCHKINA M.A., KONSHINA E.A.  
*ITMO University, Saint Petersburg*  
**Luminescent properties variation of quantum dots CdSe / ZnS In LC matrix by electric field**
44. STROKOVA Yu.A., SVYAKHOVSKIY S.E., SALETSKY A.M.  
*Lomonosov Moscow State University*  
**Luminescence decay kinetics of donor molecules in one-dimensional annealed porous silicon photonic crystal**
45. KORSHUNOV V.M.<sup>1,2</sup>, AMBROZEVICH S.A.<sup>1,2</sup>, TAIDAKOV I.V.<sup>2</sup>, VITUKHNOVSKY A.G.<sup>2,3</sup>  
<sup>1</sup>*Bauman Moscow State Technical University*  
<sup>2</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>3</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
**Luminescent properties of  $\beta$  diketonates of scandium (III)**
46. METLIN M.T.<sup>1</sup>, AMBROZEVICH S.A.<sup>1,2</sup>, METLINA D.A.<sup>1</sup>, TAIDAKOV I.V.<sup>1</sup>, VITUKHNOVSKY A.G.<sup>1,3</sup>  
<sup>1</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>2</sup>*Bauman Moscow State Technical University*  
<sup>3</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
**Luminescence of pyrazolic 1,3-diketone Pr(III) complexes with 1,10-phenanthroline**
47. BUKHARIN M.A.<sup>1,2</sup>, SKRYABIN N.N.<sup>1,2</sup>, KHUDYAKOV D.V.<sup>2,3</sup>, VARTAPETOV S.K.<sup>3</sup>  
<sup>1</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
<sup>2</sup>*Optosystems Ltd., Moscow*  
<sup>3</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
**Analysis of thermal processes of permanent refractive index change under the influence of femtosecond emission in cumulative regime**
48. BOLDYREV K.N., POPOVA M.N.  
*Institute for Spectroscopy of the RAS, Troitsk*  
**Hyperfine structure in the spectra of  $\text{LiYF}_4:\text{Ho}^{3+}$  in an external magnetic field**
49. OSIPOV E.V., BELOGORLOV A.A., MARTYNOV I.L., DOVZHENKO D.S., CHISTYAKOV A.A.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
**A new method of embedding of conjugated polymers into porous silicon photonic structures**
50. GARTMAN A.D., MAYDYKOVSKIY A.I., SVYAKHOVSKIY S.E., MITETELO N.V., EVLASHIN S.A., MURZINA T.V.  
*Lomonosov Moscow State University*  
**Two-photon absorption in graphene oxide/silver nanoparticles composite material**
51. KHARITONOV A.V.<sup>1,2</sup>, KHARINCEV S.S.<sup>1,2</sup>, FISHMAN A.I.<sup>1</sup>, SALAKHOV M.Kh.<sup>1,2</sup>  
<sup>1</sup>*Kazan Federal University*  
<sup>2</sup>*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*  
**Raman lasing in titanium nitride plasmonic microresonator**
52. ZEMSKOV K.I., KARPOVA O.V.<sup>1</sup>, KUDRYAVTSEVA A.D., MIRONOVA T.V., PERSHIN S.M.<sup>2</sup>, PETROVA E.K.<sup>1</sup>, STROKOV M.A., TCHERNIEGA N.V.  
*Lebedev Physical Institute of the RAS, Moscow*  
<sup>1</sup>*Lomonosov Moscow State University*  
<sup>2</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
**Stimulated low-frequency Raman scattering in suspensions of tobacco mosaic viruses and potato viruses (PVA and PVX)**

Meeting 5

Thursday, February 02, 2017, 10.00

Room 406

53. KOLYMAGIN D.A.<sup>1</sup>, ZVAGELSKY R.D.<sup>1</sup>, CHUBICH D.A.<sup>1</sup>, VITUKHNOVSKY A.G.<sup>1,2</sup>  
<sup>1</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
<sup>2</sup>Lebedev Physical Institute of the RAS, Moscow  
**Fabrication of 3D-periodic nano/microstructures for photonics by direct laser writing**
54. MINAEV N.V.<sup>1</sup>, TARKHOV M.A.<sup>3</sup>, DUDOVA D.S.<sup>1,2</sup>, BAGRATASHVILI V.N.<sup>1</sup>  
<sup>1</sup>Institute of Photonic Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Troitsk  
<sup>2</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>3</sup>CJSC “Superconducting Nanotechnology”, Moscow  
**Nonlinear femtosecond optical lithography**
55. MENSOV S.N.<sup>1,2</sup>, POLUSHTAYTSEV Yu.V.<sup>2</sup>  
<sup>1</sup>Lobachevsky State University of Nizhny Novgorod  
<sup>2</sup>Razuvaev Institute of Organometallic Chemistry of RAS, Nizhny Novgorod  
**Optical matching of fibers in photopolymerisable media**
56. BOGACHKOV I.V., TRUKHINA A.I.  
Omsk State Technical University  
**Problems of monitoring of modern fiber-optic communication lines**
57. DMITRIEVA K.A., BORODAKO K.A., SHELYAKOV A.V., IVANOV A.A., TIMOFEEV A.A.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Application of laser radiation for creating micromechanical elements with two-way shape memory**
58. VANIN A.I., SOLOVYEV V.G.  
Pskov State University  
**Modeling of Fano resonance in nanostructured material**
59. GAVRUSHKO V.V., IONOV A.S., KADRIEV O.R., LASTKIN V.A.  
Yaroslav-the-Wise Novgorod State University  
**Optical characteristics of differential photodetectors based on silicon**
60. LOGACHEV P.A., RUZHITSKAYA D.D., RYZHIKOV S.B., RYZHIKOVA Yu.V.  
Lomonosov Moscow State University  
**Self-organizing of fractal clusters of dendritic systems**
61. YAKUSHENKOV P.O.<sup>1,2</sup>, BALAKLEYSKIY N.S.<sup>1</sup>  
<sup>1</sup>National Research University of Electronic Technology “MIET”, Zelenograd  
<sup>2</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
**Photonic integrated circuits**
62. MASALSKY N.V.  
Scientific Research Institute of System Researches of the RAS, Moscow  
**The quasi single mode optical waveguides on the basis of structure silicon on insulator**
63. UKOLOV D.S., EGOROV A.N., MAVRITSKIY O.B., PECHENKIN A.A., CHUMAKOV A.I.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Solid immersion lens application for resolution enhancement of laser diagnostics of submicron semiconductor structures**
64. ODINOKOV S.B., SAGATELYAN H.R.  
Bauman Moscow State Technical University  
**Experimental study on plasma-chemical etching of glass**

PLENARY 2

Thursday, February 04, 2016, 13.00

Room 406

65. TRIBELSKY M.I.<sup>1,2,3</sup>  
<sup>1</sup>Lomonosov Moscow State University  
<sup>2</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>3</sup>Moscow Technological University (MIREA)  
**Peculiarities of light scattering by particles with high refractive index**
66. VOLOSTNIKOV V.G.  
Samara Branch of the Lebedev Physical Institute  
**Optical vortices: the past, present and future**
67. BARACHEVSKI V.A., KRAYUSHKIN M.M.<sup>1</sup>, KYIKO V.V.<sup>2</sup>  
Photochemistry Center of the RAS, Moscow  
<sup>1</sup>Institute of Organic Chemistry of the RAS, Moscow  
<sup>2</sup>Prokhorov General Physics Institute of the RAS, Moscow  
**3D bitwise optical memory based on light-sensitive organic compounds**
68. ARAKELIAN S.M., KUCHERIK A.O., KUTROVSKAYA S.V., OSIPOV A.V., KHORKOV K.S., ISTRATOV A.V.  
Stoletovs Vladimir State University  
**Topological units of photonics: manifestation of quantum dimension effects in optical characteristics and electrical conductivity**

POSTERS 3

Thursday, February 02, 2017, 15.00

Room 407

POSTERS 4

Thursday, February 02, 2017, 15.00

Room 406

69. MAIMISTOV A.I.<sup>1,2</sup>, LYASHKO E.I.<sup>2</sup>  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>2</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
**The nonlinear surface waves on the interface between dielectric and topological insulator**
70. MAKAROV V.A., PETNIKOVA V.M.  
 Lomonosov Moscow State University  
**Adiabatic modulation of cnoidal wave by Akhmediev breather**
71. MELNICK M.V., TCYPKIN A.N., KOZLOV S.A.  
 ITMO University, Saint Petersburg  
**Theoretical analysis of the supercontinuum coherence time dependence on phase modulation coefficient**
72. KAZANTSEVA E.V.  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Propagation of solitary waves in a Bragg grating which contains a localized spatial inhomogeneity of polarization of nonlinear resonantly absorbing periodic medium**
73. SHESTERIKOV A.V., GUBIN M.Yu., GLADUSH M.G.<sup>1</sup>, PROKHOROV A.V.  
 Stoletovs Vladimir State University  
<sup>1</sup>Institute for Spectroscopy of the RAS, Troitsk  
**Formation of sub-picosecond plasmon pulses via cooperative effects in waveguide spaser**
74. BAKHVALOVA T.N., GLADYSHEV I.V., SHANDRYUK N.G.  
 Moscow Technological University (MIREA)  
**Modeling propagation loss in integrated optical waveguides based on various material platforms**
75. LYASHKO E.I.<sup>2</sup>, MAIMISTOV A.I.<sup>1,2</sup>  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>2</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
**Dispersion characteristics of a slab hyperbolic waveguide with nonlinear core**
76. AKIMOV A.A., IVAKHNIK V.V., NIKONOV V.I.  
 Samara National Research University  
**Amplitude and spatial characteristics of the four-wave radiation converter on thermal nonlinearity in the scheme with positive feedback**
77. IVAKHNIK V.V., SAVEL'EV M.V.  
 Samara National Research University  
**Transient four-wave mixing in a transparent nanoliquid**
78. KULYA M.S., SEMENOVA V.A., OBRVYKIN A.S., BESPALOV V.G.  
 ITMO University, Saint Petersburg  
**Study of group and phase velocities of THz pulsed vortex and quasi-Bessel beams**
79. BYLINA M.S., CHAYMARDANOV P.A.  
 Bonch-Bruевич Saint-Petersburg State University of Telecommunications  
**Computer model of EDFA amplifier with multiple signals and pump sources**
80. TCIBULNIKOVA A.V.<sup>1,2</sup>, BRYUKHANOV V.V.<sup>1</sup>  
<sup>1</sup>Immanuel Kant Baltic Federal University, Kaliningrad  
<sup>2</sup>Kaliningrad State Technical University  
**The modeling of plasmons enhancement coefficients of two silver nanospheres cluster**

81. GLADYSHEV A.V., KOSOLAPOV A.F., KOLYADIN A.N., PRYAMIKOV A.D., BIRIUKOV A.S., YATSENKO Yu.P., BUFETOV I.A.  
 Fiber Optic Research Center of the RAS, Moscow  
**Raman generation at 1.9 $\mu$ m in hydrogen-filled hollow-core revolver fibers with nested capillaries**
82. EGOROV F.A., POTAPOV V.T.  
 Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS  
**Dynamics of fiber lasers based on active micro-(nano) fibers with spontaneous lifetime modulation**
83. NOSOV P.A., MARTYNOV G.N.<sup>1</sup>  
 Bauman Moscow State Technical University  
<sup>1</sup>Lomonosov Moscow State University  
**Analysis of power optics for high power fiber laser processing heads**
84. VERGELES S.S.<sup>1,2</sup>, OGORODNIKOV L.L.<sup>2,3</sup>, LEBEDEV V.V.<sup>1,2</sup>, KOLOKOLOV I.V.<sup>1,2</sup>  
<sup>1</sup>Landau Institute for Theoretical Physics of the RAS, Chernogolovka  
<sup>2</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
<sup>3</sup>Skolkovo Institute of Science and Technology, Moscow region  
**The difference of random fiber laser statistics from Gaussian one**
85. DURAEV V.P., MEDVEDEV S.V.  
 JSC "Nolatech", Moscow  
**Tunable single-frequency semiconductor lasers and its application**
86. TOMILOV S.M., TARABRIN M.K., LAZAREV V.A., SHELESTOV D.A.  
 Bauman Moscow State Technical University  
**Thermostabilization system for mid-infrared solid state laser active media**
87. KOZLOVSKII K.I., LISOVSKY M.I., PLEKHANOV A.A., CHISTYAKOV A.A.  
 National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Features of broadband THz low-inductance discharge with laser initiation**
88. SOROKIN Yu.V.  
 National Center of Laser Systems and Complexes Astrophysika, Moscow  
**Adder on photonic crystals**

89. KOZLOV D.A.<sup>1</sup>, KOTLYAR V.V.<sup>1,2</sup>

<sup>1</sup>Image processing systems institute of the RAS, Samara

<sup>2</sup>Samara National Research University

**Sharp laser light focusing by a two-layer microcylinder with circular cross-section**

90. VASILTSOV V.V., GALUSHKIN M.G., PANCHENKO V.Ya.

Institute on Laser and Information Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Shatura

**Dynamic characteristics of channel formation in biotissue under CO<sub>2</sub> laser radiation**

91. REPIN V.E.<sup>1,2</sup>, NIKITIN D.G.<sup>1,2</sup>, TYRTYSHNYY V.A.<sup>2</sup>

<sup>1</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny

<sup>2</sup>IRE-Polus Corporation, Fryazino

**Comparison of SiO<sub>2</sub>/Ta<sub>2</sub>O<sub>5</sub> antireflection coatings laser induced damage thresholds**

92. KORONNOV A.A.<sup>1</sup>, SAFUTIN A.E.<sup>1</sup>, ZEMLYANOV M.M.<sup>1</sup>, ZVEREV G.M.<sup>1,2</sup>

<sup>1</sup>JSC “POLYUS Research Institute of M.F. Stelmah”, Moscow

<sup>2</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny

**Durability of photodiodes to laser irradiation**

Meeting 8

Friday, February 03, 2017, 10.00

Room 406

93. SCHELEV M.Ya., MESHKOV O.I.<sup>1</sup>, SHASHKOV E.V.

Prokhorov General Physics Institute of the RAS, Moscow

<sup>1</sup>Budker Institute of Nuclear Physics of SB RAS, Novosibirsk

**Picosecond streak camera application for electron bunch diagnostics in accelerators**

94. IVANOV A.D.<sup>1</sup>, MINKOV K.N.<sup>1,2</sup>, SAMOILENKO A.A.<sup>1</sup>

<sup>1</sup>All-Russian Research Institute for Optical and Physical Measurements, Moscow

<sup>2</sup>Moscow Institute of Electronics and Mathematics of Higher School of Economics

**Optical microcavity as a primary measuring transducer with high sensitivity**

95. VEDYASHKINA A.V., RINKEVICHYUS B.S., PAVLOV I.N.

National Research University “Moscow Power Engineering Institute”

**Investigation of diffusion layer of liquid using refraction of structured laser radiation**

96. BUSURIN V.I., KOROBKOV V.V., DIACHKOV V.V.

Moscow Aviation Institute (National Research University)

**Interferometric method of processing of solid-state wave gyroscopes information**

97. BARYSHNIKOV N.V., DENISOV D.G., KARASSIK V.E., KRASNOVA E.V., ORLOV V.M.

Bauman Moscow State Technical University

**Analysis of the influence of noise in the ARS method of measurement errors of parameters of nanometer-level roughness of optical components profiles**

98. MAKIN V.S., GLUSCHENKO L.A., PESTOV Yu.I.

Scientific Research Institute for Optoelectronic Instrument Engineering, Sosnovy Bor, Leningrad region

**Pulsed wave remote sensing**

99. STEPANOV V.A., BELIH V.V., AIZIKOVICH A.A.

Kalashnikov Izhevsk State Technical University

**Information-entropy method of mapping the organs of human chest based on the multifractal analysis of the structure of roentgenograms**

100. ZVERZHKHOVSKIY V.D., KRETUSHEV A.V., EVDOKIMOV A.A., FETISOV Yu.K.

Moscow Technological University (MIREA)

**The comparison of different phase microscopy methods to living T lymphocytes determination**

101. TALAIKOVA N.A.<sup>1</sup>, RYABUKHO V.P.<sup>1,2</sup>

<sup>1</sup>Saratov National Research State University

<sup>2</sup>Institute of Precision Mechanics and Control of the RAS, Saratov

**Manifestation of the spatial coherence effects in experiments by diffraction phase microscopy**

102. PAVLOV I.N., RINKEVICHYUS B.S., TOLKACHEV A.V., VEDYASHKINA A.V.

National Research University “Moscow Power Engineering Institute”

**Application of surface plasmon resonance method for visualization of phase transitions in a near-wall layer of water droplet**

103. ARTYUKOV I.A., BUSAROV A.S., VINOGRADOV A.V., POPOV N.L.

Lebedev Physical Institute of the RAS, Moscow

**X-ray lithography and microscopy at the inclined arrangement of masks and objects**

104. KOMOTSKII V.A., SOKOLOV Yu.M., SUETIN N.V.

Peoples' Friendship University of Russia, Moscow

**Device of a new type for periodical modulation of laser radiation**

Meeting 9

Friday, February 03, 2017, 13.00

Room 406

105. GIBIN I.S., NEJEVENKO E.S.

Institute of Automation and Electrometry SB RAS, Novosibirsk

**Optoelectronic convolutional neural network for images recognition**

106. BYKOVSKY A.Yu., SHERBAKOV A.A.<sup>1</sup>

Lebedev Physical Institute of the RAS, Moscow

<sup>1</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny

**Multiple-valued logic models for objects classification**

107. PAVLOV A.V.

ITMO University, Saint Petersburg

**On the effectiveness of correlated parts detecting by the superimposed holograms method in dependence of the properties of recording media**

108. IVANOV P.A.  
Yaroslavl State Technical University  
**DCCF and polynomial filters in problems of distorted images recognition**
109. BUSURIN V.I., KNYAZ V.A., KOROBKOV K.A.  
Moscow Aviation Institute (National Research University)  
**Method of processing combined «rough-precise» information in gestures recognition system**
110. KOTOV V.M., SHKERDIN G.N., AVERIN S.V.  
Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS  
**Optical image edge enhancement with the using of the acousto-optic filters from the gyrotropic material**
111. VERENIKINA N.M., KOVALEV M.S., KOLOSOVA E.S., MALININA P.I.  
Bauman Moscow State Technical University  
**Methods of correction phase distortion based on diffractive optical elements**
112. KRASNOV V.V., MINAEVA E.D.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Application of direct search with random trajectory method for reduction of phase diffractive optical elements synthesis error**
113. ARTYUKOV I.A., IRTUGANOV N.N.  
Lebedev Physical Institute of the RAS, Moscow  
**The non-linear noise reduction with auto-fit parameters in microtomography studies of low-contrast objects**
114. EVTIKHIEV N.N., STARIKOV R.S., CHERYOMKHIN P.A.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Accurate and rapid method of measurement of temporal noise of photo- and videocameras**
115. KAPRANOV V.V., MATSAK I.S., TUGAENKO V.Yu., BLANK A.V.<sup>1</sup>  
S.P. Korolev Rocket and Space Corporation Energia, Korolev  
<sup>1</sup>Lomonosov Moscow State University  
**Background reduction laser illumination imaging based on dual-band camera-system**
116. MOSHCHEV I.S.<sup>1,2</sup>, KUZNETSOV P.A.<sup>2</sup>  
<sup>1</sup>National Research University "Moscow Power Engineering Institute"  
<sup>2</sup>JSC «RD&P Center «Orion», Moscow  
**320x256 InGaAs/InP photomodule for active imagers**

Meeting 10

Friday, February 03, 2017, 16.00

Room 406

117. TOLSTIK A.L.  
Belarusian State University, Minsk  
**Polarization dynamic holography**
118. MOROZOV A.V.<sup>1</sup>, PUTILIN A.N., DUBYNIN S.E.<sup>1</sup>, KOPENKIN S.S.<sup>2</sup>, BORODIN Yu.P.<sup>2</sup>  
Lebedev Physical Institute of the RAS, Moscow  
<sup>1</sup>Samsung Research Center, Moscow  
<sup>2</sup>Moscow Technological University (MIREA)  
**Coherent backlight units for holographic display**
119. SHEVKUNOV I.A., PETROV N.V., KATKOVNIK V.Ya.<sup>1</sup>  
ITMO University, Saint Petersburg  
<sup>1</sup>Tampere University of Technology, Finland  
**Reconstruction method for off-axis holograms based on multidirectional nonsymmetrical windows and intersection of confidence intervals rule**
120. KALENKOV G.S.<sup>1</sup>, KALENKOV S.G.<sup>2</sup>, KISELEV V.A.<sup>1,3</sup>, KLIMENKO S.V.<sup>4</sup>  
<sup>1</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
<sup>2</sup>Moscow Polytechnic University  
<sup>3</sup>Scientific and Technical Centre «Atlas». Moscow  
<sup>4</sup>Institute of Physical and Technical Informatics, Protvino  
**Virtual environment, like the technology of visualization hyperspectral holograms**
121. PETROV N.V.<sup>1</sup>, SHEVKUNOV I.A.<sup>1</sup>, BELASHOV A.V.<sup>1,2</sup>, NALEGAEV S.S.<sup>1</sup>, PUTILIN S.E.<sup>1</sup>, LIN Y.-C.<sup>3</sup>, CHANG C.-J.<sup>3</sup>  
<sup>1</sup>ITMO University, Saint Petersburg  
<sup>2</sup>loffe physical-technical institute of the RAS, Saint-Petersburg  
<sup>3</sup>National Taiwan Normal University, Taipei, Taiwan  
**Time-resolved inline holography for investigation of optical nonlinear interaction**
122. NAYDEN L.A., TSYGANOV I.K., ODINOKOV S.B.  
Bauman Moscow State Technical University  
**Study of color holographic images producing methods by using diffraction gratings**
123. ZINOVIEV A.P.  
Institute of Applied Physics of the RAS, Nizhny Novgorod  
**Optimization of the data reconstruction method in the digital holography**
124. ZLOKAZOV E.Yu.<sup>1</sup>, KOVALEV M.S., KRASIN G.K., MALININA P.I., ODINOKOV S.B., TALALAEV V.Ye.  
Bauman Moscow State Technical University  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Numerical calculation of Fresnel hologram for holographic optical sensors**
125. PAVLOV P.V., MALOV A.N., POPOV F.N.  
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A. Gagarin, Voronezh  
**A method for identifying defects in the internal structure of composite materials using digital speckle photography**
126. DYACHENKO A.A.<sup>1,2</sup>, RYABUKHO V.P.<sup>1,2</sup>  
<sup>1</sup>Saratov National Research State University  
<sup>2</sup>Institute of Precision Mechanics and Control of the RAS, Saratov  
**Effect of spatial and temporal spectral properties of the optical systems in polychromatic interference microscopy**
127. GURYLEV O.A., ODINOKOV S.B., LUSHNIKOV D.S., ZHERDEV A.Yu., SHISHOVA M.V.  
Bauman Moscow State Technical University  
**Design and research an optical system of linear encoder based on foursectional diffraction grating**

128. KRAISKII A.V., POSTNIKOV V.A.<sup>1</sup>, SHEVCHENKO M.A., SULTANOV T.T.

*Lebedev Physical Institute of the RAS, Moscow*

<sup>1</sup>*Baikov Institute of Metallurgy and Materials Sciences of the RAS, Moscow*

**On the accuracy of determining the concentration of glucose in the blood plasma using holographic sensors**

Posters 1

Wednesday, February 03, 2017, 12.00

129. ANGERVAKS A.E., AKSENOVA K.A., RYSKIN A.I.

*ITMO University, Saint Petersburg*

**Mid-infrared volume holographic filters creation method**

130. SHEPELEVICH V.V., MAKAREVICH A.V., SHANDAROV S.M.<sup>1</sup>

*I.P. Shamyakin Mozyr State Pedagogical University, Belarus*

<sup>1</sup>*Tomsk State University of Control Systems and Radioelectronics*

**The dependence of the output characteristics of holograms in the BTO crystal on its thickness**

131. ROMASHKO R.V.<sup>1,2</sup>, ASALKHANOVA M.A.<sup>1</sup>, KULCHIN Yu.N.<sup>1,2</sup>

<sup>1</sup>*Institute of Automation and Control Processes of FEB RAS, Vladivostok*

<sup>2</sup>*Far Eastern Federal University, Vladivostok*

**Adaptive interferometer based on orthogonal three-wave mixing in photorefractive crystal**

132. ASHUROV M.S., GORELIK V.S.<sup>1</sup>, KLIMONSKY S.O.

*Lomonosov Moscow State University*

<sup>1</sup>*Lebedev Physical Institute of the RAS, Moscow*

**Optical properties of one-dimensional photonic crystals**

133. KRAISKII A.A., KRAISKII A.V.

*Lebedev Physical Institute of the RAS, Moscow*

**About the properties of increasing the amplitude of the field near the edge of the gap one-dimensional photonic crystal**

134. PRUDNIKOV I.R.

*Lomonosov Moscow State University*

**A resonant enhancement of light intensity in a 1-D photonic crystal-based interferometer with a thin spacer film**

135. KRYUKOVA I.S., MARTYNOV I.L., DOVZHENKO D.S., CHISTYAKOV A.A.

*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*

**Modeling of optical properties of hybrid structures based on luminophores embedded into one-dimensional photonic crystal using FDTD method**

136. KORYUKIN A.V.<sup>1,2</sup>, SALAKHOV M.Kh.<sup>1,2</sup>

*Kazan Federal University*

<sup>1</sup>*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*

**Transmission through self-assembled hybrid self-assembled photonic-plasmonic crystals**

137. VYUNISHEV A.M.<sup>1,2</sup>, BIKBAEV R.G.<sup>2</sup>, PANKIN P.S.<sup>2</sup>, SVYAKHOVSKIY S.E.<sup>3</sup>

<sup>1</sup>*Kirensky Institute of Physics SB RAS, Krasnoyarsk*

<sup>2</sup>*Siberian Federal University, Krasnoyarsk*

<sup>3</sup>*Lomonosov Moscow State University*

**Band formation in quasiperiodic photonic crystals**

138. INYUSHOV A.V., TRUSHNIKOV I.A., SAFRONOVA P.K., SARKYT A., SHANDAROV V.M.

*Tomsk State University of Control Systems and Radioelectronics*

**Optical generation of one-dimensional photonic structures with Bessel-like profile in lithium niobate**

139. TEPLYAKOVA N.A., SIDOROV N.V., PALATNIKOV M.N.

*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region*

**Optical properties of the crystal LiNbO<sub>3</sub>:Fe(0.02):Zn(4.34) mol.%**

140. SYUY A.V., KILE E.O., PROKOPIV N.N., SIDOROV N.V.<sup>1</sup>, PALATNIKOV M.N.<sup>1</sup>

*Far Eastern State Transport University, Khabarovsk*

<sup>1</sup>*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region*

**Study of homogeneous lithium niobate crystal by interference-polarization method**

141. VERKHOTUROV A.O., SHANDAROV V.M.

*Tomsk State University of Control Systems and Radioelectronics*

**Optical formation of diffraction structures in lithium niobate with photorefractive surface layer**

142. MANUKOVSKAYA D.V., SIDOROV N.V., PALATNIKOV M.N.

*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region*

**Fractal analysis of photoinduced light scattering pictures in lithium niobate crystals with low photorefractive effect**

143. SYUY A.V., KILE E.O., PROKOPIV N.N., SIDOROV N.V.<sup>1</sup>, PALATNIKOV M.N.<sup>1</sup>

*Far Eastern State Transport University, Khabarovsk*

<sup>1</sup>*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region*

**Electro-optical properties of lithium niobate crystals**

144. LITVINOVA M.N., POGODINA V.A., SYUY A.V., KRISHTOP V.V., SIDOROV N.V.<sup>1</sup>, PALATNIKOV M.N.<sup>1</sup>

*Far Eastern State Transport University, Khabarovsk*

<sup>1</sup>*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region*

**Conversion of broadband infrared radiation and the structural disorder in Zn doped lithium niobate crystals**

145. PUSTOZEROV A.V., RYABCHENOK V.Yu., SHANDAROV V.M.

*Tomsk State University of Control Systems and Radioelectronics*

**An influence of incoherent background illumination on a sign of nonlinear optical response of a lithium niobate crystal**

146. GALUTSKIY V.V., KUZORA V.F., STROGANOVA E.V.

*Kuban State University, Krasnodar*

**Applying gradient PPLN:Er<sup>3+</sup> to amplify the optical signals**



147. PIKOUL O.Yu., SIDOROV N.V.<sup>1</sup>, TEPLYAKOVA N.A.<sup>1</sup>, PALATNIKOV M.N.<sup>1</sup>  
*Far Eastern State Transport University, Khabarovsk*  
<sup>1</sup>*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of Kola Science Center of the RAS, Apatity, Murmansk region*  
**Optical homogeneity of lithium niobate single crystals of congruent composition**
148. DYU V.G., KISTENEVA M.G., SHANDAROV S.M., MOSHKINA M.D.  
*Tomsk State University of Control Systems and Radioelectronics*  
**Optical absorption spectra of Bi<sub>12</sub>TiO<sub>20</sub>:Ca crystal exposed by sequential illumination to short- and long-wavelength radiation**
149. IVANOVA A.I., TRETIAKOV S.A., SLOBODYANYUK K.A., TARGONIY A.A.  
*Tver State University*  
**The influence of surface characteristics on the optical transmission of germanium single crystals**
150. TRETIAKOV S.A., KAPLUNOV I.A., TARGONIY A.A., SLOBODYANYUK K.A.  
*Tver State University*  
**The determination of the emissivity of germanium crystals with different roughness of surface**
151. MOLCHANOVA A.D., BOLDYREV K.N.  
*Institute for Spectroscopy of the RAS, Troitsk*  
**Narrow resonance lines in the terahertz spectra of the Cu<sub>3</sub>B<sub>2</sub>O<sub>6</sub> single crystal: nature and properties**
152. IVANOVA S.V.  
*Lebedev Physical Institute of the RAS, Moscow*  
**Incommensurately phases in nanodomain crystal**
153. KHUDYAKOVA E.S., SHANDAROV S.M., KISTENEVA M.G., DYU V.G., SMIRNOV S.V., KORNIENKO T.A.<sup>1</sup>  
*Tomsk State University of Control Systems and Radioelectronics*  
<sup>1</sup>*Belarusian State University, Minsk*  
**Thermoinduced changes in optical absorption in the undoped bismuth germanium oxide crystals**
154. ANANYEV P.S., MARTYNOV I.L., OSIPOV E.V., DOVZHENKO D.S., CHISTYAKOV A.A.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
**Temperature influence on optical properties of porous silicon microcavities**
155. KOLESNIKOV A.I., KAPLUNOV I.A., LYAKHOVA M.B., TRETIAKOV S.A., AIDINYAN N.V.  
*Tver State University*  
**Azimuthal maxima in indicatrices of light reflection by polished single crystal surfaces**
156. ILINA E.A.<sup>1</sup>, KHMELEV A.Yu., YURINA U.V.<sup>2</sup>, SIDOROV A.I.<sup>1,3</sup>  
<sup>1</sup>*ITMO University, Saint Petersburg*  
<sup>2</sup>*Peter the Great Saint-Petersburg Polytechnic University*  
<sup>3</sup>*Saint-Petersburg State Electrotechnical University "LETI"*  
**Optical information recording in LiF and KBr crystals by electron beam**
157. SOKOLENKO B.V., POLETAEV D.A., KOVALYOVA A.O., PETROV N.V.<sup>1</sup>, SHEVKUNOV I.A.<sup>1</sup>  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
<sup>1</sup>*ITMO University, Saint Petersburg*  
**Transformation of singular beam phase propagating in uniaxial crystal**
158. KOSTRITSKII S.M., KORKISHKO YU.N., FEDOROV V.A.  
*RPC Optolink Ltd, Zelenograd*  
**Electrooptic 1x2 switch based on channel waveguides in LiNbO<sub>3</sub> crystals**
159. DYAKONOV E.A., POROKHOVNICHENKO D.L.  
*Lomonosov Moscow State University*  
**Semicollinear regime of interaction of terahertz electromagnetic waves with ultrasound in paratellurite crystals**
160. NIKITIN P.A.  
*Lomonosov Moscow State University*  
**Quasi-orthogonal acousto-optic diffraction on vortex sound beam**
161. AKIMOVA Ya.E., EGOROV Yu.A., HALILOV S.I.  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
**Experimental study of the disturbed beam Bessel-Gauss shaped cone of wave vectors that carry fractional topological charge**
162. ISMAILOV I.A., LAPAYEVA S.N.  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
**Topological reaction to the distribution uniaxial crystal right-circular polarized optical quarks**
163. KOVALYOVA A.O., RUBASS A.F., PETROV N.V.<sup>1</sup>, SHEVKUNOV I.A.<sup>1</sup>  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
<sup>1</sup>*ITMO University, Saint Petersburg*  
**Conversion angular momenta in a circularly polarized singular beam with fractional topological charge**
164. KUZYAKOV B.A., IVANOV P.A., SKVORTSOV E.A., TIHONOV R.V.  
*Moscow Technological University (MIREA)*  
**The quality of the passing laser beam in the perturbed atmosphere**
165. PLJONKIN A.P.  
*Southern Federal University, Taganrog*  
**Detection of photon impulse of synchronization in quantum key distribution system**
166. ZLOKAZOV E.Yu., KRASNOV V.V., NEBAVSKIY V.A., OSIPOV V.G.<sup>1</sup>, SOLYAKIN I.V., STARIKOV R.S., CHERYOMKHIN P.A.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>1</sup>*Research Centre «Module», Moscow*  
**Model of microwave sampling system**
167. PETROV N.I., DANILOV V.A., POPOV V.V.<sup>1</sup>, USIEVICH B.A.<sup>2</sup>  
*Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow*  
<sup>1</sup>*Lomonosov Moscow State University*  
<sup>2</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
**Subwavelength diffractive gratings of visual range**
168. BOGACHKOV I.V., TRUKHINA A.I.  
*Omsk State Technical University*  
**Increase of the detection efficiency of leak channels in optical fibers**
169. KUZYAKOV B.A., IVANOV P.A., PLOSKIREV A.E., SKVORTSOV E.A.  
*Moscow Technological University (MIREA)*  
**Perfection fiber-optical concordance unit for complex lines telecommunications**

170. CHAYMARDANOV P.A.  
*Bonch-Bruевич Saint-Petersburg State University of Telecommunications*  
**New design procedure for solving EDFA amplifier based on erbium-doped silica fiber**
171. BOGACHKOV I.V., KOMPANEETS O.E.  
*Omsk State Technical University*  
**Research of the Mandelstam - Brillouin backscattering in single-mode optical fibers with special profiles**
172. BOGACHKOV I.V.  
*Omsk State Technical University*  
**Research of temperature dependences of Brillouin frequency shift in optical fibers of different types**
173. BOGACHKOV I.V.  
*Omsk State Technical University*  
**Experimental research of Brillouin frequency shift from longitudinal stretching forces in optical fibers of different types**
174. ROMASHCHUK Ye.V.  
*Siberian State University of Telecommunications and Informatics, Novosibirsk*  
**Non-linear effects on far distances**

Posters 2

Wednesday, February 03, 2017, 12.00

175. DANILOV P.A.<sup>2</sup>, KUDRYASHOV S.I.<sup>2</sup>, LITOVKO E.P.<sup>2,3</sup>, UMANSKAYA S.F.<sup>1,2</sup>  
<sup>1</sup>*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>2</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>3</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
**Reactive magnetron sputtering and research of metal-dielectric metasurfaces with epsilon-near-zero**
176. VOITSEKHOVSKII A.V., KULCHITSKY N.A.<sup>1</sup>, NESMELOV S.N., DZYADUKH S.M.  
*National Research Tomsk State University*  
<sup>1</sup>*Moscow Technological University (MIREA)*  
**MIS structures based on graded-gap MBE HgCdTe for infrared detectors**
177. VOITSEKHOVSKII A.V., KULCHITSKY N.A.<sup>1</sup>, NESMELOV S.N., DZYADUKH S.M.  
*National Research Tomsk State University*  
<sup>1</sup>*Moscow Technological University (MIREA)*  
**Effect of illumination on admittance of MIS structure based on graded-gap MBE HgCdTe**
178. KUZZNETZOV P.I., AVERIN S.V., ZHITOV V.A., ZAKHAROV L.Yu., KOTOV V.M.  
*Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS*  
**Visible light photodetector on the base of ZnSe/ZnTe superlattice**
179. IVANOV V.I., PERKOV Yu.O.  
*Far Eastern State Transport University, Khabarovsk*  
**A photodetector based on the metal-ferroelectric-metal sandwich system**
180. GANZHERLI N.M., GULYAEV S.N.<sup>1</sup>, MAURER I.A.  
*Ioffe physical-technical institute of the RAS, Saint-Petersburg*  
<sup>1</sup>*Peter the Great Saint-Petersburg Polytechnic University*  
**Creation of holographic structures on dichromated gelatin - organic polymer composite**
181. MAHILNY U.V.<sup>1</sup>, STANKEVICH A.I.<sup>1</sup>, TROFIMOVA A.V.<sup>1</sup>, BEZRUCHENKO V.S.<sup>1,2</sup>  
<sup>1</sup>*Belarusian State University, Minsk*  
<sup>2</sup>*Institute of chemistry of new materials of NAS of Belarus, Minsk*  
**Photoinduced planar LC alignment on the layers of benzaldehyde polymers containing long alkyl side chains**
182. SHKURAK I.N.<sup>1</sup>, SEL'YUKOV A.S.<sup>1,2</sup>, VITUKHNOVSKY A.G.<sup>1,2</sup>, ISAEV A.A.<sup>2</sup>, KORSHUNOV V.M.<sup>2,3</sup>, VASILIEV R.B.<sup>4</sup>  
<sup>1</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
<sup>2</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>3</sup>*Bauman Moscow State Technical University*  
<sup>4</sup>*Lomonosov Moscow State University*  
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183. BOZHENKO M.V., RASIN A.B., CHUSOVITIN E.A., YAN D.T.<sup>1</sup>  
*Institute of Automation and Control Processes of FEB RAS, Vladivostok*  
<sup>1</sup>*Far Eastern State Transport University, Khabarovsk*  
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184. SOLOVEY V.R.<sup>1</sup>, SEL'YUKOV A.S.<sup>1,2</sup>, VITUKHNOVSKY A.G.<sup>1,2</sup>, VASILIEV R.B.<sup>3</sup>, LAZAREVA E.P.<sup>3</sup>  
<sup>1</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
<sup>2</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>3</sup>*Lomonosov Moscow State University*  
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185. ASADULLINA A.R.<sup>1</sup>, KHARINCEV S.S.<sup>1,2</sup>  
<sup>1</sup>*Kazan Federal University*  
<sup>2</sup>*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*  
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186. KOMISSAR D.A.<sup>1</sup>, SEL'YUKOV A.S.<sup>1,2</sup>, VITUKHNOVSKY A.G.<sup>1,2</sup>, VASILIEV R.B.<sup>3</sup>, KUROCHKIN N.S.<sup>1,2</sup>, SOLOVEY V.R.<sup>1</sup>  
<sup>1</sup>*Moscow Institute of Physics and Technology (State University), Dolgoprudny*  
<sup>2</sup>*Lebedev Physical Institute of the RAS, Moscow*  
<sup>3</sup>*Lomonosov Moscow State University*  
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187. KISLOV D.A.  
*Orenburg State University*  
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188. ONISCHUK S.A., MURADOVA A.S.  
*Kuban State University, Krasnodar*  
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189. IVANOV V.I., IVANOVA G.D.  
*Far Eastern State Transport University, Khabarovsk*  
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190. KOLCHIN A.V., PUGACHEV D.Yu., TKACHENKO N.B., EFIMOVA A.I., ZABOTNOV S.V., GOLOVAN L.A.  
*Lomonosov Moscow State University*  
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191. KUCHERENKO M.G., KISLOV D.A.  
*Orenburg State University*  
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192. KONSTANTINOVA E.I.<sup>1,2</sup>, MATVEEVA K.I.<sup>1</sup>, BRYUKHANOV V.V.<sup>1</sup>  
<sup>1</sup>*Immanuel Kant Baltic Federal University, Kaliningrad*  
<sup>2</sup>*Kaliningrad State Technical University*  
**Exciton-plasmon interaction CdZnSZnS and CdZnSeS quantum dots with silver nanoparticles in polymethylmethacrylate film**
193. IVANOVA G.D., KIRJUSHINA S.I., MJAGOTIN A.V.  
*Far Eastern State Transport University, Khabarovsk*  
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194. KUCHERENKO M.G., NALBANDYAN V.M.  
*Orenburg State University*  
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195. EGORYSHEVA A.V.<sup>1</sup>, DUDKINA T.D., GAITKO O.M.<sup>1</sup>, RUDNEV P.O.<sup>1,2</sup>  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>1</sup>*Kurnakov Institute of General and Inorganic Chemistry of the RAS, Moscow*  
<sup>2</sup>*Lomonosov Moscow State University*  
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196. RUSINOV A.P., KUCHERENKO M.G., GORSHKOV A.V.  
*Orenburg State University*  
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197. VOLKOVA O.I., BARANOV A.N.  
*Lomonosov Moscow State University*  
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198. OVECHENKO D.S., BOYCHENKO A.P.  
*Kuban State University, Krasnodar*  
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199. DMITRIEVA M.D.<sup>1</sup>, KHARINCEV S.S.<sup>1,2</sup>, ALEKSEEV A.M.<sup>3</sup>, FISHMAN A.I.<sup>1</sup>, SALAKHOV M.Kh.<sup>1,2</sup>  
<sup>1</sup>*Kazan Federal University*  
<sup>2</sup>*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*  
<sup>3</sup>*Nazarbaev University, Astana, Kazakhstan*  
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200. CHERNYKH E.A.<sup>1</sup>, KHARINCEV S.S.<sup>1,2</sup>, ALEKSEEV A.M.<sup>3</sup>, FISHMAN A.I.<sup>1</sup>, SALAKHOV M.Kh.<sup>1,2</sup>  
<sup>1</sup>*Kazan Federal University*  
<sup>2</sup>*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*  
<sup>3</sup>*Nazarbaev University, Astana, Kazakhstan*  
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201. KOTLIKOV E.N., NOVIKOVA Ju.A., IURKOVETS E.V.  
*State University of Aerospace Instrumentation, Saint Petersburg*  
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202. TIKHOMIROVA N.S.<sup>1,2</sup>, SLEZHKIN V.A.<sup>1,2</sup>, ZYUBIN A.Yu.<sup>1</sup>, BRYUKHANOV V.V.<sup>1</sup>  
<sup>1</sup>*Immanuel Kant Baltic Federal University, Kaliningrad*  
<sup>2</sup>*Kaliningrad State Technical University*  
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203. ISMAGILOV A.O., ANDREEVA N.V., ANDREEVA O.V.  
*ITMO University, Saint Petersburg*  
**Research of optical heterogeneity of nanoporous silicate matrices**
204. CHERNOV A.I.<sup>1,2</sup>, FEDOTOV P.V.<sup>2</sup>, OBRAZTSOVA E.D.<sup>1,2</sup>  
<sup>1</sup>*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>2</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
**Adjustment of single-walled carbon nanotubes optical properties via graphene nanoribbons encapsulation**
205. MOLCHANOVA A.D., MOSHKINA E.M.<sup>1</sup>, BOLDYREV K.N.  
*Institute for Spectroscopy of the RAS, Troitsk*  
<sup>1</sup>*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*  
**Investigation of magnetic phase transitions in multi-sublattice magnet Cu<sub>x</sub>Mn<sub>1-x</sub>B<sub>2</sub>O<sub>4</sub> by optical polarization spectroscopy**
206. KOZLOVA D.A., IVANOV S.A., PICHUGIN I.S.  
*ITMO University, Saint Petersburg*  
**Influence of rare earth activator concentration on the dynamics of the plasmon resonance band in photo-thermo-refractive glass**
207. CHERNAKOV D.I.<sup>1</sup>, SIDOROV A.I.<sup>1,2</sup>, STOLYARCHUK M.V.<sup>1</sup>  
<sup>1</sup>*ITMO University, Saint Petersburg*  
<sup>2</sup>*Saint-Petersburg State Electrotechnical University "LETI"*  
**Creating a luminescent waveguide in photo-thermo-refractive glass by UV radiation**
208. KRYKOVA V.A., IVANOV S.A., DUBROVIN V.D.  
*ITMO University, Saint Petersburg*  
**Holographic properties on chloride photo-thermo-refractive glass**
209. BABKINA A.N., TROTS K.I., NIKONOROV N.V.  
*ITMO University, Saint Petersburg*  
**Color centers formation in borate glasses with CuCl nanocrystals under UV irradiation**
210. STOLYARCHUK M.V.<sup>1</sup>, KOCHETKOV P.V.<sup>1</sup>, SIDOROV A.I.<sup>1,2</sup>  
<sup>1</sup>*ITMO University, Saint Petersburg*  
<sup>2</sup>*Saint-Petersburg State Electrotechnical University "LETI"*  
**AB INITIO calculations of optical properties of Ag-Cu molecular clusters in phosphate glasses**

211. GORBYAK V.V.<sup>1</sup>, SIDOROV A.I.<sup>1,2</sup>  
<sup>1</sup>ITMO University, Saint Petersburg  
<sup>2</sup>Saint-Petersburg State Electrotechnical University "LETI"  
**Multilevel optical information recording in silver-containing glasses**
212. KOBRANOVA A.A.<sup>1</sup>, SIDOROV A.I.<sup>1,2</sup>  
<sup>1</sup>ITMO University, Saint Petersburg  
<sup>2</sup>Saint-Petersburg State Electrotechnical University "LETI"  
**Sensitive element temperature sensing based on glass with Eu and molecular clusters Ag**
213. TCIBULNIKOVA A.V.<sup>1,2</sup>, MYSLITSKAYA N.A.<sup>1,2</sup>, SLEZHKIN V.A.<sup>1,2</sup>, BRYUKHANOV V.V.<sup>1</sup>, ZEMLYAKOVA E.S.<sup>1</sup>  
<sup>1</sup>Immanuel Kant Baltic Federal University, Kaliningrad  
<sup>2</sup>Kaliningrad State Technical University  
**Interaction between plasmon of silver nanoparticles of different origin and bovine serum albumin molecules**
214. FATKHUTDINOVA L.I., NEPOMNYASCHAYA E.K., VELICHKO E.N., AKSENOV E.T.  
Peter the Great Saint-Petersburg Polytechnic University  
**Study of magnetic fluids by the method of polarimetry**
215. SAVCHENKO E.A., NEPOMNYASCHAYA E.K., DUBO D.B., VELICHKO E.N., TSYBIN O.Yu.  
Peter the Great Saint-Petersburg Polytechnic University  
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216. KUZMINA T.B., ANDREEVA N.V., ANDREEVA O.V.  
ITMO University, Saint Petersburg  
**Analysis of the parameters of biological fluids by dynamic light scattering method**
217. KIRJUSHINA S.I., MJAGOTIN A.V.  
Far Eastern State Transport University, Khabarovsk  
**Nonlinear optical diagnostics of nanoliquides**
218. LIVASHVILI A.I., KRISHTOP V.V., KOSTINA G.V., LIKHOVODOVA T.B.  
Far Eastern State Transport University, Khabarovsk  
**The dynamics of the thermal conductivity of nanoliquid in a light field**

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Pacific State University, Khabarovsk  
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220. KARTSEV P.F., KUZNETSOV I.O.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Taking into account the polariton-phonon interaction for the simulation of the Bose gas thermalization process**
221. BICHKOV A.B., KOZHINA A.S., MITYUREVA A.A., SMIRNOV V.V.  
Saint Petersburg State University  
**Modification of the trajectory method for evaluation the probability of multiphoton ionization**
222. KHALYAPIN V.A., BUGAY A.N.<sup>1</sup>  
Kaliningrad state technical university  
<sup>1</sup>Joint institute of nuclear researches, Dubna  
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223. HOPERSKY A.N., NADOLINSKY A.M., KONEEV R.V.  
Rostov State Transport University, Rostov-on-Don  
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224. ASTASHKEVICH S.A.  
Saint Petersburg State University  
**Information entropy for high excited vibrational states of lithium dimer isotopologues**
225. MAKIN V.S., MAKIN R.S.<sup>1</sup>  
Scientific Research Institute for Optoelectronic Instrument Engineering, Sosnovy Bor, Leningrad region  
<sup>1</sup>Dimitrovgrad Engineering and Technological Institute of the NRNU MEPhI, Ulyanovsk region  
**About quartz glass damage model by ultrafast radiation**
226. DOBRINA D.A., VEIKO V.P., LEBEDEVA E.V., SINEV D.A.  
ITMO University, Saint Petersburg  
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227. OREKHOV I.O., DVORETSKIY D.A. SAZONKIN S.G., KUDELIN I.S., PNEV A.B., KARASSIK V.E., DENISOV L.K.  
Bauman Moscow State Technical University  
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228. KROLEVETS O.S., LEVITSKIY M.E.<sup>1</sup>  
National Research Tomsk Polytechnic University  
<sup>1</sup>TOPAZ Ltd, Tomsk  
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229. RYABCHUK S.V.<sup>1</sup>, GONCHAROV S.A.<sup>1</sup>, MOKROUSOVA D.V.<sup>2</sup>, SELEZNEV L.V.<sup>2</sup>, SUNCHUGASHEVA E.S.<sup>2</sup>, USTINOVSKII N.N.<sup>2</sup>, SHUTOV A.V.<sup>2</sup>, ZVORYKIN V.D.<sup>1,2</sup>  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow  
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230. GONCHAROV S.A.<sup>1</sup>, RYABCHUK S.V.<sup>1</sup>, SHUTOV A.V.<sup>2</sup>, ZVORYKIN V.D.<sup>1,2</sup>, SUNCHUGASHEVA E.S.<sup>2</sup>, MOKROUSOVA D.V.<sup>2</sup>  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow  
**Regularization of UV multiple filamentation in air by method of amplitude masks**
231. MAKIN V.S., MAKIN R.S.<sup>1</sup>  
Scientific Research Institute for Optoelectronic Instrument Engineering, Sosnovy Bor, Leningrad region  
<sup>1</sup>Dimitrovgrad Engineering and Technological Institute of the NRNU MEPhI, Ulyanovsk region  
**Laser radiation filamentation in transparent condensed media and volume gratings formation**

232. NIKOLAEV D.A.<sup>2</sup>, TSVETKOV V.B.<sup>1,2</sup>, SHAMATOVA A.I.<sup>1,2</sup>  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>2</sup>Prokhorov General Physics Institute of the RAS, Moscow  
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233. IONIN A.A.<sup>1</sup>, KINYAEVSKIY I.O.<sup>1</sup>, KLIMACHYOV Yu.M.<sup>1</sup>, KOZLOV A.Yu.<sup>1</sup>, KOTKOV A.A.<sup>1</sup>, STEPANISHCHEV V.V.<sup>2</sup>, KHAFIZOV I.Zh.<sup>2</sup>  
Lebedev Physical Institute of the RAS, Moscow  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**Spectral structure of sum frequency generation of multiline carbon monoxide laser in ZnGeP<sub>2</sub> crystal**
234. GALUSHKIN M.G., YAKUNIN V.P., DYACHKOV R.G.<sup>1</sup>  
Institute on Laser and Information Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Shatura  
<sup>1</sup>Bauman Moscow State Technical University  
**Influence of saturation of diode pump radiation absorption in YAG:Yb<sup>3+</sup> crystal on parameters of planar waveguide lasers**
235. KOZLOVSKII K.I., KOTKOVSKII G.E., MITYAGIN Yu.A.<sup>1</sup>, PIRYAZEV I.N., PLEKHANOV A.A., CHISTYAKOV A.A.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow  
**Stand on the basis of femtosecond laser and a Michelson interferometer for the study of THz radiation of photoconductive antennas**
236. AKMALOV A.E., KOZLOVSKII K.I., KOTKOVSKII G.E., PIRYAZEV I.N., PLEKHANOV A.A., CHISTYAKOV A.A.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
**THz spectrum based on photoconductive antennas and band resonant THz filters**
237. GANIN D.V.<sup>1,2</sup>, LAPSHIN K.E.<sup>2</sup>, OBIDIN A.Z.<sup>2</sup>, VARTAPETOV S.K.<sup>2</sup>  
<sup>1</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>2</sup>Prokhorov General Physics Institute of the RAS, Moscow  
**Single pulse perforating of thin transparent dielectrics by femtosecond lasers**
238. AKOVANTSEVA A.A., YUSUPOV V.I., RYBALTOIVSKII A.O.<sup>1</sup>  
Institute of Photonic Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Troitsk  
<sup>1</sup>Lomonosov Moscow State University  
**Features of formation of structures under the influence of continuous and pulsed laser radiation in the films of thermostable polymers**
239. SMIRNOV V.V., ALYKOVA O.M., BEZNISKO E.I., KURAMSHIN K.V.  
Astrakhan State University  
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240. POLTAEV Yu.A., SERGEEV M.M., ZAKOLDAEV R.A., KOVAL V.V.  
ITMO University, Saint Petersburg  
**Densification inside of porous glass by ultra-short laser pulses**
241. KOVAL V.V., SERGEEV M.M., ZAKOLDAEV R.A., RYMKEVICH V.S., POLTAEV Yu.A.  
ITMO University, Saint Petersburg  
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242. BAZZAL Kh., FADAIJAN A.P., VOROPAY E.S., ZAJOGIN A.P.  
Belarusian State University, Minsk  
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243. KOZLOVSKII K.I., MELEKHOV A.P.  
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
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244. KUSHVARA D.A., PLIVAK S.A., SHUMILIN A.S.  
Southern Federal University, Taganrog  
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245. ROGOZHNIKOV G.S., ROMANOV V.V., MISHINA I.V.  
All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region  
**Application of picosecond streak-camera for ultra-short laser pulse diagnostics in multichannel laser facilities**
246. SMIRNOV A.A., GAZIZOV I.M., OLNEV A.A., FEDORKOV V.G., KAPLUNOV I.A.<sup>1</sup>  
National Center of Laser Systems and Complexes Astrophysika, Moscow  
<sup>1</sup>Tver State University  
**Measuring performance CZT detectors in optical excitation of charge carriers with the ability to scan a light beam**
247. SCHELEV M.Ya., MESHKOV O.I.<sup>1</sup>, VERESCHAGIN A.K.  
Prokhorov General Physics Institute of the RAS, Moscow  
<sup>1</sup>Budker Institute of Nuclear Physics of SB RAS, Novosibirsk  
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248. BELUKHINA Yu.Yu., LYUBIMOV A.I.<sup>1</sup>, ROGOZHNIKOV G.S.<sup>2</sup>, ROMANOV V.V.<sup>2</sup>  
Sarov State Physics and Technical Institute NRNU MEPhI, Nizhny Novgorod region  
<sup>1</sup>State Institute of Applied Optics, Kazan  
<sup>2</sup>All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region  
**Optimization of stretcher and compressor parameters for multichannel petawatt laser facility**
249. ROGOZHIN M.V.<sup>1</sup>, ROGALIN V.E.<sup>2,3</sup>, KRIMSKY M.I.<sup>1,2</sup>  
<sup>1</sup>Moscow Institute of Physics and Technology (State University), Dolgoprudny  
<sup>2</sup>National Center of Laser Systems and Complexes Astrophysika, Moscow  
<sup>3</sup>Tver State University  
**Two-component output windows in high-power laser systems**
250. DUDOVA D.S.<sup>1,2</sup>, BARDAKOVA K.N.<sup>1</sup>, HOLHOEV B.Ch.<sup>3</sup>, FARION I.A.<sup>4</sup>, OCHIROV B.D.<sup>4</sup>, BURDUKOVSKIY V.F.<sup>4</sup>, TIMASHEV P.S.<sup>1</sup>, MINAEV N.V.<sup>1</sup>  
<sup>1</sup>Institute of Photonic Technologies, – branch of FSRC “Crystallography and Photonics” of the RAS, Troitsk  
<sup>2</sup>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)  
<sup>3</sup>Buryat State University, Ulan-Ude  
<sup>4</sup>Baikal Institute of Nature Management SB of RAS, Ulan-Ude  
**Fabrication of three-dimensional structures based on thermostable heterochain polymer compositions by laser stereolithography**
251. LYUBIMOV A.I.<sup>1</sup>, ROMANOV V.V.  
All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region  
<sup>1</sup>State Institute of Applied Optics, Kazan  
**Optimization of energy characteristics of dielectric diffraction gratings for laser pulse compression**

252. GALUSHKIN M.G.  
*Institute on Laser and Information Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Shatura*  
**Efficiency of laser beam utilization in gas laser cutting of materials**
253. YAKUNIN V.P., GRIGORANTZ A.G.<sup>1</sup>, FUNTIKOV V.A.<sup>1</sup>  
*Institute on Laser and Information Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Shatura*  
<sup>1</sup>*Bauman Moscow State Technical University*  
**Generation characteristics of single-mode laser diodes virtual and real bars at beams spectral incoherent combining in stable resonators with diffraction grating**
254. ROGOV P.Yu., PUTILIN S.E., NALEGAEV S.S., CHANG C.-J.<sup>1</sup>, BESPALOV V.G.  
*ITMO University, Saint Petersburg*  
<sup>1</sup>*National Taiwan Normal University, Taipei, Taiwan*  
**Interaction of femtosecond laser radiation with human skin: experimental confirmation of the mathematical model**
255. FARRAKHOVA D.S.<sup>1</sup>, MAKAROV V.I.<sup>2</sup>, LOSCHENOV V.B.<sup>1,2</sup>  
<sup>1</sup>*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>2</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
**Evaluation of healing skin grafts with using aluminum phthalocyanine nanoparticles and indocyanine green by laser spectroscopic methods**
256. MALOV A.N., NOVIKOVA E.A.<sup>1</sup>, VAYCHAS A.A.<sup>2</sup>  
*Air Force Academy named after prof. N.E. Zhukovsky and Yu.A. Gagarin, Voronezh*  
<sup>1</sup>*Scientific Centre for Family Health and Human Reproduction Problems, Irkutsk*  
<sup>2</sup>*Irkutsk branch of Moscow state technical university of civil aviation*  
**The mechanism of laser radiation action on a mineralization of the human bile preparations**
257. SHAROVA A.S.<sup>1</sup>, MACLYGINA Ju.S.<sup>2</sup>, ROMANISHKIN I.D.<sup>2</sup>, LOSCHENOV V.B.<sup>1,2</sup>  
<sup>1</sup>*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>2</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
**The study of molecular bacteriochlorin nanocrystals as agents for hyperthermia therapy of malignant neoplasms**
258. TIMCHENKO E.V., TIMCHENKO P.E., ZARUBINA E.G., BURENKOV E.S., ASADOVA A.A., ITYAKSOV Yu.D.  
*Samara National Research University*  
**Research of effectiveness of the staphylococcal infections treatment in the tonsils using Raman spectroscopy**
259. LYKINA A.A., ARTEMYEV D.N., BRATCHENKO I.A., KHRISTOFOROVA Ju.A., MYAKININ O.O., KUZMINA T.P.<sup>1</sup>, DAVYDKIN I.L.<sup>1</sup>, ZAKHAROV V.P.  
*Samara National Research University*  
<sup>1</sup>*Samara State Medical University*  
**Analysis of human biofluids with different concentrations by Raman spectroscopy method**
260. TIMCHENKO P.E., TIMCHENKO E.V., DOLGYSHKIN D.A.<sup>1</sup>, VOLOVA L.T.<sup>1</sup>, ASADOVA A.A., FEDOROVA Ya.V., PRAVEDNIKOV S.I.  
*Samara National Research University*  
<sup>1</sup>*Samara State Medical University*  
**Study of structural features of the rat bone tissue using Raman spectroscopy**
261. TIMCHENKO E.V., TIMCHENKO P.E., VOLOVA L.T.<sup>1</sup>, DOLGYSHKIN D.A.<sup>1</sup>, MARKOVA M.D., YAGOFAROVA E.F.  
*Samara National Research University*  
<sup>1</sup>*Samara State Medical University*  
**Analysis of joint fluid using Raman spectroscopy**
262. SHAMINA L.A., BRATCHENKO I.A., ARTEMYEV D.N., MYAKININ O.O., MORYATOV A.A.<sup>1</sup>, KOZLOV S.V.<sup>1</sup>, ZAKHAROV V.P.  
*Samara National Research University*  
<sup>1</sup>*Samara State Medical University*  
**Raman and fluorescence spectroscopy of human body fluids for cancers detection**
263. TIMCHENKO P.E., TIMCHENKO E.V., VOLOVA L.T.<sup>1</sup>, DOLGYSHKIN D.A.<sup>1</sup>, FROLOV O.O., MESHCHERYAKOV V.D., BALMASOV A.V.  
*Samara National Research University*  
<sup>1</sup>*Samara State Medical University*  
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264. TIMCHENKO E.V., TIMCHENKO P.E., VOLOVA L.T.<sup>1</sup>, SHALCOVSKAYA P.Yu., TRAPEZNIKOV D.S.  
*Samara National Research University*  
<sup>1</sup>*Samara State Medical University*  
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*V.I. Vernadsky Crimean Federal University, Simferopol*  
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266. MAKAROV V.A., PETNIKOVA V.M., RYZHIKOV P.S., SHUVALOV V.V., YADVICHUK A.V.  
*Lomonosov Moscow State University*  
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267. SKOBNIKOV V.A., GORODETSKY A.A.<sup>1,2</sup>, KULYA M.S.  
*ITMO University, Saint Petersburg*  
<sup>1</sup>*Lancaster University, Birmingham, United Kingdom*  
<sup>2</sup>*Cockcroft Institute, Cheshire, United Kingdom*  
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268. ALEXEYEV C.N., BARSHAK E.V., YAVORSKY M.A.  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
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269. ZOLOTOVSKII I.O., LAPIN V.A., SEMENSOV D.I.  
*Ulyanovsk State University*  
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270. KOVALYOVA A.O., ALEXEYEV C.N., RUBASS A.F., PETROV N.V.<sup>1</sup>, SHEVKUNOV I.A.<sup>1</sup>  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
<sup>1</sup>*ITMO University, Saint Petersburg*  
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271. HALILOV S.I., IBRAGIMOV A.E., RUBASS A.F., AKIMOVA Ya.E.  
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272. VEKSHIN M.M., NIKITIN V.A., YAKOVENKO N.A.  
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*Tomsk State University of Control Systems and Radioelectronics*  
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275. VORZOBOVA N.D., SOKOLOV P.P., VESELOV V.O.  
*ITMO University, Saint Petersburg*  
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276. ANOKHINA M.A.<sup>1,2</sup>, MENSOV S.N.<sup>1,2</sup>, POLUSHTAYTSEV Yu.V.<sup>2</sup>  
<sup>1</sup>*Lobachevsky State University of Nizhny Novgorod*  
<sup>2</sup>*Razuvaev Institute of Organometallic Chemistry of RAS, Nizhny Novgorod*  
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278. CHERNIAK M.E.<sup>1,2</sup>, MOZHAEV R.K.<sup>1</sup>, STAKHARNIY S.A.<sup>3</sup>, MERKULOV A.V.<sup>3</sup>  
<sup>1</sup>*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>2</sup>*Specialized Electronic Systems, Moscow*  
<sup>3</sup>*JSC "CRI "Cyclone", Moscow*  
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279. SAKHAROV V.K.  
*"VOSPI Centre" Ltd, Moscow*  
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280. KOMOTSKII V.A., SOKOLOV Yu.M., SUETIN N.V.  
*Peoples' Friendship University of Russia, Moscow*  
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281. SHAULSKY D.V.  
*All-Russian Research Institute of Automatics, Moscow*  
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282. KAMENEV O.T., PETROV Yu.S., KHIZNYAK R.V., KOLCHINSKIY V.A.  
*Institute of Automation and Control Processes of FEB RAS, Vladivostok*  
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283. GORYACHEV L.V., MARININ A.A.  
*Sarov State Physics and Technical Institute NRNU MEPhI, Nizhny Novgorod region*  
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284. VORONTSOV E.N.<sup>1</sup>, EFIMOVA K.V.<sup>1,2</sup>, KOTOVA S.P.<sup>1,2</sup>, LOSEVSKY N.N. A.A.<sup>1</sup>, PROKOPOVA D.V.<sup>1,2</sup>  
<sup>1</sup>*Samara Branch of the Lebedev Physical Institute*  
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*Bauman Moscow State Technical University*  
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*Belarusian State University, Minsk*  
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287. RAZUVAEV A.E., SHVEDOVA O.V., TUGAENKO V.Yu.  
*S.P. Korolev Rocket and Space Corporation Energia, Korolev*  
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288. VOLCOV V.G.  
*Bauman Moscow State Technical University*  
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289. EMELIANOV V.M., LENTOVSKII V.V., FEDOROV D.L.  
*Baltic State Technical University «VOENMEH» named after D.F. Ustinov, Saint-Petersburg*  
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290. VOLOSTNIKOV V.G.<sup>1</sup>, KISHKIN S.A.<sup>2</sup>, KOTOVA S.P.<sup>1,3</sup>  
<sup>1</sup>*Samara Branch of the Lebedev Physical Institute*  
<sup>2</sup>*Krasnodar Higher Military School*  
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291. BYSHEVSKI-KONOPKO O.A., PROKLOV V.V., LUGOVSKOI A.V., KORABLEV E.M.  
*Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS*  
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292. GULIS I.M., KUPREYEU A.G.  
*Belarusian State University, Minsk*  
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293. MAKSIMOVA L.A.<sup>1</sup>, RYABUKHO P.V.<sup>1,2</sup>, MYSINA N.Yu.<sup>1</sup>, RYABUKHO V.P.<sup>1,2</sup>  
<sup>1</sup>*Institute of Precision Mechanics and Control of the RAS, Saratov*  
<sup>2</sup>*Saratov National Research State University*  
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294. POLETAEV D.A., SOKOLENKO B.V., KOVALYOVA A.O., PETROV N.V.<sup>1</sup>, SHEVKUNOV I.A.<sup>1</sup>  
*V.I. Vernadsky Crimean Federal University, Simferopol*  
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295. DYOMIN V.V., POLOVCEV I.G., KAMENEV D.V., KOZLOVA A.S., OLENIN A.L.<sup>1</sup>  
*National Research Tomsk State University*  
<sup>1</sup>*P.P. Shirshov Institute of Oceanology, Moscow*  
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296. GONCHAROV D.S., PETROVA E.K., PONOMAREV N.M., STARIKOV R.S., SHAULSKY D.V.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
**Synthesis and investigation of invariant maximum average height correlation filter**
297. DENISOV D.G., NAGOVITSYN V.V., MENDELEEV V.Ya.<sup>1</sup>  
*Bauman Moscow State Technical University*  
<sup>1</sup>*Prokhorov General Physics Institute of the RAS, Moscow*  
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298. AVLASEVICH N.T., BUTS A.I., LYALIKOV A.M.  
*Janka Kupala State University, Grodno, Belarus*  
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299. DENISOV D.G., DGUMAMURATOVA A.A., LARICHEV A.V.<sup>1</sup>, MARTYNOVA D.A.  
*Bauman Moscow State Technical University*  
<sup>1</sup>*Lomonosov Moscow State University*  
**Method and optoelectronic device controlling intraocular lens options**
300. RYABOV K.D., MYAKININ O.O., GUSEINOV A.Yu.<sup>1</sup>, ZAKHAROV V.P., KHRAMOV A.G.  
*Samara National Research University*  
<sup>1</sup>*Branchevsky Eye Clinic, Samara*  
**An active sphere method for 3D OCT images segmentation**
301. MENSOV S.N.<sup>1,2</sup>, POLUSHTAYTSEV Yu.V.<sup>2</sup>  
<sup>1</sup>*Lobachevsky State University of Nizhny Novgorod*  
<sup>2</sup>*Razuvaev Institute of Organometallic Chemistry of RAS, Nizhny Novgorod*  
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302. BUTS A.I., LYALIKOV A.M.  
*Janka Kupala State University, Grodno, Belarus*  
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303. KOLYUCHKIN V.V., ODINOKOV S.B.  
*Bauman Moscow State Technical University*  
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304. AUNG M.W., RINKEVICHYUS B.S., PAVLOV I.N.  
*National Research University "Moscow Power Engineering Institute"*  
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305. GONCHAROV D.S., KRASNOV V.V., PONOMAREV N.M., STARIKOV R.S.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
<sup>1</sup>*ITMO University, Saint Petersburg*  
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306. BARYSHNIKOV N.V., DENISOV D.G., KARASSIK V.E., MOROZOV A.B.<sup>1</sup>, PATRIKKEEV V.E.<sup>1</sup>, SULEYMANOV G.M.<sup>1</sup>  
*Bauman Moscow State Technical University*  
<sup>1</sup>*Lytkarino Optical Glass Factory, Moscow region*  
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307. EVTIKHIEV N.N., KRASNOV V.V., SHIFRINA A.V.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
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*ITMO University, Saint Petersburg*  
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309. KULAKOV M.N., STARIKOV R.S., CHERYOMKHIN P.A.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
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310. ISMANOV Yu.H., ISMAILOV D.A., ZHUMALIEV K.M., ALYMKULOV S.A.  
*Institute of Physical-Technical Problems and Material Science of NAS KR, Bishkek, Kyrgyz republic*  
**Self-reproduction effect in holography**
311. KURBATOVA E.A., CHERYOMKHIN P.A.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
**Methods of compression of digital holograms by wavelet transforms**
312. KATEROVA S.S., KRASNOV V.V., KURBATOVA E.A., MOLODTSOV D.Yu., CHERYOMKHIN P.A., RODIN V.G.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
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313. VOVK T.A., PETROV N.V.  
*ITMO University, Saint Petersburg*  
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314. MINAEVA E.D., KRASNOV V.V., CHERYOMKHIN P.A., RODIN V.G.  
*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*  
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