

CONFERENCE OPENING. PLENARY

Wednesday, February 1, 2023, 9.00

1. DRACHEV V.P.
Skolkovo Institute of Science and Technology
Hybrid plasmon-silicon devices for integrated photonics
2. CHERNIKOV A.S.¹, TSELIKOV G.I.², GUBIN M.Yu.^{1,2}, SHESTERIKOV A.V.^{1,2}, KHORKOV K.S.¹, ERMOLAEV G.A.², KAZANTSEV I.S.², MARKEEV A.M.², TIKHONOWSKI G.V.³, ROMANOV R.I.³, POPOV A.A.³, KAPITANOVA O.O.⁴, SYUY A.V.², KOCHUEV D.A.¹, LEKSIN A.Yu.¹, TSELIKOV D.I.³, ARSENIN A.V.², KABASHIN A.V.³, VOLKOV V.S.², PROKHOROV A.V.^{1,2}
¹*Vladimir State University named after Alexander and Nikolay Stoletovs*
²*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
³*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
⁴*Lomonosov Moscow State University*
Tunable optical properties of transition metal dichalcogenide nanoparticles synthesized by laser ablation and fragmentation
3. ZIMNYAKOV D.A.^{1,2}, VOLCHKOV S.S.¹
¹*Yury Gagarin State Technical University, Saratov*
²*Institute of Precision Mechanics and Control of the RAS, Saratov*
Laser-induced variations in the macroscopic conductivity in ensembles of semiconductor nanoparticles near the percolation threshold: effect of interparticle and intra-particle carrier transfer
4. POPOV S.M., BUTOV O.V.¹, RYAKHOVSKIY D.V., RYBALTOVSKII A.A.¹, LIPATOV D.S.², FOTIADI A.A.³, CHAMOROVSKIY Yu.K.
Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
¹*Kotel'nikov Institute of Radioengineering and Electronics of RAS, Moscow*
²*Devyatykh Institute of Chemistry of High-Purity Substances of the RAS, Nizhny Novgorod*
³*Ulyanovsk State University*
Random fiber lasers with a cavity based on ytterbium doped optical fibers with arrays of fiber Bragg gratings

PLENARY 2

Wednesday, February 1, 2023, 12.00

5. POZHIDAEV E.P., KOTOVA S.P.¹, SAMAGIN S.A.¹, BARBASHOV V.A.
Lebedev Physical Institute of the RAS, Moscow
¹*Samara Branch of the Lebedev Physical Institute of the RAS*
Ferroelectric liquid crystals as the electrooptical media of high-frequency vortex light fields generators
6. BELYI V.N., KHILO N.A., ROPOT P.I., KAZAK N.S.¹
B.I. Stepanov Institute of Physics of the NAS of Belarus, Minsk
¹*SSPA "Optics, Optoelectronics and Laser Technology" of the NAS of Belarus, Minsk*
Superpositions of Bessel light beams for optical communication in free space
7. BEZUS E.A.^{1,2}, DOSKOLOVICH L.L.^{1,2}, SKIDANOV R.V.^{1,2}, BLANK V.A.^{1,2}, GANCHEVSKAYA S.V.^{1,2}, PODLIPNOV V.V.^{1,2}, BYKOV D.A.^{1,2}, GOLOVASTIKOV N.V.^{1,2}
¹*Image Processing Systems Institute – Branch of the Federal Scientific Research Centre "Crystallography and Photonics", Samara*
²*Samara National Research University*
Design and investigation of "spectral" diffractive lenses focusing radiation of different wavelengths to different points
8. PUTILIN A.N.¹, DUBYNIN S.E.^{1,2}, PUTILIN N.A.^{1,3}, KOPENKIN S.S.^{1,4}, BORODIN Yu.P.^{1,4}
¹*Lebedev Physical Institute of the RAS, Moscow*
²*Samsung Research Center, Moscow*
³*Moscow State University of Geodesy and Cartography «MIIGAiK»*
⁴*MIREA – Russian Technological University, Moscow*
Application of waveguide holographic multiplexers in augmented reality display

Meeting 1

Wednesday, February 1, 2023, 14.00

9. IVANOVA N.A., KLYUEV D.S.
Tyumen State University
Liquid optical elements with controlled free surface shape
10. EGAMOV M.Kh., MAKHSUDOV B.I.¹
Khujand Scientific Center of the Academy of Sciences of the Republic of Tajikistan
¹*Tajik National University, Dushanbe, Republic of Tajikistan*
Orientation effect in polymeric liquid crystal dispersed systems
11. KAMIAK K.G., KABANOVA O.S., RUSHNOVA I.I., MELNIKOVA E.A., TOLSTIK A.L.
Belarusian State University, Minsk
Formation of spatially structured anisotropic diffraction elements
12. DENISOV D.G., KARASSIK V.E., PATRIKKEVA A.A.
Bauman Moscow State Technical University
Development of scientific foundations and modeling of the method of differential scattering of laser radiation for the task of high-precision control of the roughness parameters of the subnanometer level
13. ZEMTSOV D.S.^{1,2}, ZEMTSOVA A.K.^{1,2}, KOSOLOBOV S.S.¹, ZHIGUNOV D.M.¹, SMIRNOV A.S.¹, TAZIEV K.R.¹, PSHENICHNYUK I.A.¹, GARBUZOV K.N.¹, DRACHEV V.P.¹
¹*Skolkovo Institute of Science and Technology*
²*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
Active integrated devices on silicon-on-insulator platform: temperature and electroabsorption modulation

14. KASHAPOV A.I.^{1,2}, BEZUS E.A.^{1,2}, BYKOV D.A.^{1,2}, DOSKOLOVICH L.L.^{1,2}
¹Image Processing Systems Institute – Branch of the Federal Scientific Research Centre “Crystallography and Photonics”, Samara
²Samara National Research University
Spatiotemporal optical differentiation with metal-dielectric multilayers
15. PROKOFIEV E.V., UCHANOVA D.D., MOSKVIN M.K.
 ITMO University, Saint-Petersburg
Technology for recording hologram frequencies on a metal surface for the formation of laser-induced structural formation
16. SAVCHENKOV E.N., SHANDAROV S.M., BURIMOV N.I., DUBIKOV A.V., BELSKAYA D.E., SHUR V.Ya.¹, AKHMATKHANOV A.R.¹,
 CHUVAKOVA M.A.¹
 Tomsk State University of Control Systems and Radioelectronics
¹Ural State University, Ekaterinburg
Photoinduced conductivity of regular domain structures in lithium tantalate at a wavelength of 532 nm
17. SUKHANOV A.E., GALUTSKIY V.V.
 Kuban State University, Krasnodar
Model of an electro-optical modulator with a given concentration distribution in a lithium niobate crystal
18. KUZNETSOV I.V., PERIN A.S.
 Tomsk State University of Control Systems and Radioelectronics
Modeling of polarization converter based on asymmetric thin-film ridge waveguides
19. BYCHKOVA S.A., MAKSIMOV L.V., MINAKOV F.A., SINKO A.S.^{1,2}, KOZLOVA N.N.³, NIKOLAEV N.A.
 Institute of Automation and Electrometry SB RAS, Novosibirsk
¹Lomonosov Moscow State University
²Institute on Laser and Information Technologies – branch of FSRC “Crystallography and Photonics” of the RAS, Shatura
³Shubnikov Institute of Crystallography of FSRC «Crystallography and Photonics» of the RAS, Moscow
Polarization terahertz spectroscopy of a semi-organic GUPH crystal
20. SAGATELYAN H.R., SAMORODOV A.V., KONDRATENKO V.S.¹, PISKUNOVA E.R., KUZNETSOV A.S.
 Bauman Moscow State Technical University
¹MIREA – Russian Technological University, Moscow
Fabrication of the caliber for color measurement during the computerized histological analysis

Meeting 2

Wednesday, February 1, 2023, 17.00

21. SHUKLOV I.A.
 Moscow Institute of Physics and Technology (State University), Dolgoprudny
Chemistry of lead chalcogenide colloidal quantum dots in sols and thin films
22. LANTUKH Yu.D.
 Orenburg State University
Biopolymer system of chitosan-dye as a prototype of active laser medium
23. KOSLAPOVA K.D., MIRUSCHENKO M.D., USHAKOVA E.V.
 ITMO University, Saint-Petersburg
Investigation of optical properties and energy structure of carbon dots based on citric acid and ethylenediamine treated with polymers
24. MILENKOVICH T., SHUKLOV I.A., RAZUMOV V.F.
 Moscow Institute of Physics and Technology (State University), Dolgoprudny
Study of the effect of ligand exchange on the properties of photoresistors based on mercury telluride colloidal quantum dots
25. MARDINI A.A., SHUKLOV I.A., RAZUMOV V.F.
 Moscow Institute of Physics and Technology (State University), Dolgoprudny
Synthesis and characterization of mercury telluride colloidal quantum dots applying phosphine-based precursors
26. SHESTERIKOV A.V.^{1,2}, GUBIN M.Yu.^{1,2}, NOVIKOV S.M.², KIRTAEV R.V.², ARSENIN A.V.², PROKHOROV A.V.^{1,2}, VOLKOV V.S.²
¹Vladimir State University named after Alexander and Nikolay Stoletovs
²Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
Cross-polarization effects in metasurfaces based on silicon nanocuboids with a defect
27. UTIYUSHEV A.D., GAPONENKO R., SHCHERBAKOV A.A.
 ITMO University, Saint-Petersburg
Enhancement magnetic dipole emission in the presence of a spherical particle
28. KAFEEVA D.A., YANDYBAEVA Yu.I., GLADSKIKH I.A., TOROPOV N.A., VARTANYAN T.A., DADADZHANOV D.R.
 ITMO University, Saint-Petersburg
Investigation of the optical anisotropy of silver nanoparticles in polymer matrices
29. KAZANTSEVA A.V.¹, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Applied Research of Tatarstan Academy of Sciences, Kazan
Investigation of spatially limited polymers by Raman thermometry
30. VOSKANYAN G.R.^{2,3}, KUROCHKIN N.S.^{1,2}, GRITSYENKO A.V.^{1,2}, SYCHEV V.V.^{1,2}, ELISEEV S.P.¹
¹Lebedev Physical Institute of the RAS, Moscow
²Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
³Bauman Moscow State Technical University
Luminescent thermometry of diamond centers in the infrared range
31. DONCHENKO V.A., ZEMLYANOV A.A., RYAMBOV R.V.
 National Research Tomsk State University
Acoustic signals from aqueous aerosol with silver nanoparticles under irradiation with femtosecond laser pulses
32. PETRASHKO L.R.^{1,2}, OVCHAROV A.V.³, ZHIGARKOV V.S.²
¹Lomonosov Moscow State University
²Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
³National Research Center «Kurchatov Institute» Moscow
Characterization of metal nanoparticles arising from laser bioprinting

Meeting 3

Thursday, February 2, 2023, 9.00

33. MAKIN V.S., MAKIN R.S.¹
Scientific and Design Center for Optoelectronic Observation Complexes - Branch of JSC "Kometa Corporation", Saint-Petersburg
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
Optical skyrmion as stable self-organized topological structure under laser radiation interaction with condensed media
34. EPIFANOV E.O., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Influence of a supercritical carbon dioxide on a focused laser beam during ablation
35. KINYAEVSKIY I.O., KLIMACHEV Yu.M., KOZLOV A.Yu., RULEV O.A., SINITSYN D.V., SHUTOV A.V.
Lebedev Physical Institute of the RAS, Moscow
CO₂ laser of atmospheric pressure on the basis of installation for excimer laser
36. PERMYAKOVA I.E., IVANOV A.A.¹, CHERNOGOROVA O.P.²
Bardin Central Research Institute of Ferrous Metallurgy, Moscow
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*Baikov Institute of Metallurgy and Material Sciences of the RAS, Moscow*
Effect of excimer laser irradiation on the structure and properties of amorphous alloys
37. BURMISTROV E.R., AVAKYANTS L.P.
Lomonosov Moscow State University
2DEG parameters in led heterostructures with five QW/QB InxGa1-xN/GaN according to THz-TDs
38. BATTALOVA E.I.¹, KHARINCEV S.S.^{1,2}
¹*Kazan Federal University*
²*Institute of Applied Research of Tatarstan Academy of Sciences, Kazan*
Broadband light-emitting diode based on inorganic lead halide perovskites
39. ISMAEL A.^{1,2}, FEDORENKO A.Yu.¹, OREKHOV I.O.¹, SAZONKIN S.G.¹, OBRAZTSOVA E.D.^{2,3}
¹*Bauman Moscow State Technical University*
²*Moscow Institute of Physics and Technology (State University), Dolgoprudny*
³*Prokhorov General Physics Institute of the RAS, Moscow*
Pulse evolution of Er-doped fiber laser with hybrid mode-locking
40. WU M.¹, BI D., KARPOV M.A., KUDRYAVTSEVA A.D., MIRONOVA T.V., TAREEVA M.V., UMANSKAYA S.F., TCHERNIEGA N.V., SHEVCHENKO M.A.
Lebedev Physical Institute of the RAS, Moscow
¹*Bauman Moscow State Technical University*
Temporal characteristics control of coherent radiation using intracavity low-frequency Raman scattering of light
41. DANILIN A.N.^{1,2}, LOBANOV V.E.¹, BILENKO I.A.^{1,2}
¹*Russian Quantum Center, Skolkovo*
²*Lomonosov Moscow State University*
The effect of multifrequency self-injection locking due to interaction of a semiconductor laser and a high-Q microcavity
42. EGOROVA X.A., ROZANOV K.A., SIDOROVA A.D., GORENSKII F.A., SINEV D.A.
ITMO University, Saint-Petersburg
Regulated change in the hardness of metal products by laser treatment under a layer of additional substances
43. MINAEVA E.D.^{1,2}, ANTOSHIN A.A.^{2,3}, YUSUPOV V.I.², MINAEV N.V.²
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk*
³*Sechenov First Moscow State Medical University*
Comparison of different laser energy distribution profiles use for the task of laser bioprinting
44. SACHENKO D.V.
JSC «LLS, Saint-Petersburg
Development, production and service of lasers and laser equipment

POSTERS 1

Thursday, February 2, 2023, 12.00

Meeting 4

Thursday, February 2, 2023, 13.00

45. DRAMPYAN R., PARFENOV V.A.¹
Institute for Physical Research of the National Academy of Sciences of Armenia, Ashtarak, Armenia
¹*Saint-Petersburg State Electrotechnical University «LETI»*
Laser restoration cleaning of historical monuments
46. ZHIGARKOV V.S.¹, GROSFELD E.V.^{1,2}, ALEXANDROV A.I.², MINAEV N.V.¹, YUSUPOV V.I.¹
¹*Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk*
²*Federal Research Centre «Fundamentals of Biotechnology» of the RAS, Moscow*
Effect of laser bioprinting on cell functionality
47. BORODINA L.N., VENIAMINOV A.V.
ITMO University, Saint-Petersburg
Photoinduced change in diffusivity of luminescent nanocrystals in laser scanning microscopy
48. SALHAB M., RAJASEKARA C.L.B., VASILIEV O.S.¹, KARPOV O.N., PARFENOV V.A.
Saint-Petersburg State Electrotechnical University «LETI»
¹*Laser Center Ltd., Saint-Petersburg*
Laser treatment for restoring original color of decorative carbon steel-based artworks

49. TARASOV I.P., BORODINA L.N., IVANOV S.A., LIPATIEV A.S.¹, SIGAEV V.N.¹, NIKONOROV N.V.
ITMO University, Saint-Petersburg
¹*Mendeleeev University of Chemical Technology of Russia, Moscow*
Femtosecond laser fabrication of linear microstructures in a photo-thermo-refractive glass by ultrashort laser pulses
50. BURTSEV A.A., IONIN V.V., KISELEV A.V., ELISEEV N.N., MIKHALEVSKY V.A., NEVZOROV A.A., LOTIN A.A.
Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
Conductivity switching of phase-change materials induced by pulsed laser radiation
51. GRESKO V.R., SMIRNOVA V.V., SENNIKOVA D.V., SERGEEV M.M., DOLGOPOLOV A.D.
ITMO University, Saint-Petersburg
Femtosecond laser modification of ZnO:Ag properties of thin films
52. YAKUBOVSKY D.I., ARSEVIN A.V., GRUDININ D.V., MIRONOV M.S., VOLKOV V.S.
Moscow Institute of Physics and Technology (State University), Dolgoprudny
Near-field optical microscopy for characterization of ultra-thin metal films
53. MURATOV D.A., NIKOLAEV N.E., CHEKHLOVA T.K.
Peoples' Friendship University of Russia (RUDN University), Moscow
Optical properties of composite media containing gold particles of different shapes
54. NASSER K., ASEEV V.A., IGNATIEV A.I., NIKONOROV N.V.
ITMO University, Saint-Petersburg
Gain spectra of ytterbium-doped chloride photo-thermo-refractive glass
55. MALYSHEV O.K.¹, MARTYNOV I.L.¹, CHISTYAKOV A.A.¹, GAPONENKO N.V.^{1,2}
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*Belarusian State University of Informatics and Radioelectronics, Minsk*
Mathematical simulating of reflection spectra of photonic structures made of porous silicon with oxidation rate taken into account
56. SHADRINA G.V.^{1,2}, BULGAKOV E.N.^{2,3}
¹*Institute of Computational Modeling of SB RAS, Krasnoyarsk*
²*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*
³*Siberian Federal University, Krasnoyarsk*
Optical angular bistability and symmetry breaking in a finite photonic crystal

POSTERS 2

Thursday, February 2, 2023, 16.00

Meeting 5

Thursday, February 2, 2023, 17.00

57. KHARITONOV A.V.¹, MINIBAEV A.I.¹, KHARINCEV S.S.^{1,2}
¹*Kazan Federal University*
²*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*
Time-varying materials for photonics: the role of dispersion
58. SHOUTOVA O.A., TRUSHIN S.M.
Lomonosov Moscow State University
Generation of harmonics by atomic gases in vector vortex fields
59. BIKBAEV R.G.^{1,2}, MAKSIMOV D.N.^{1,2}, CHEN K.-P.³, TIMOFEEV I.V.^{1,2}
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*
²*Siberian Federal University, Krasnoyarsk*
³*National Yang Ming Chiao Tung University, Tainan, Taiwan*
Beam steering by Tamm plasmon polariton
60. KUZNETSOV N.Yu., GRIGORIEV K.S., SHIPILO D.E., NIKOLAEVA I.A., RYADCHENKO A.E., PANOVA N.A., KOSAREVA O.G.,
 KANDIDOV V.P., MAKAROV V.A.
Lomonosov Moscow State University
Topological features of polarization singularity lines formed during its tight focusing
61. KHAVRONIN M.E., VYSHNEVYY A.A.
Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
Goos-Hänchen shift at singular reflection point
62. GEINTS T.A., GEINTS I.Yu., SHOUTOVA O.A.
Lomonosov Moscow State University
Investigation of the polarization properties of a vector Bessel beam
63. BURKOV A.S., TERESCHENKO N.V., OBRONOV I.V., MYASNIKOV D.V.
IRE-Polus Corporation, Fryazino
Transmitting volume Bragg gratings and analysis of its phase profile and thermal lens
64. ZALOZNAYA E.D.^{1,2}, DORMIDONOV A.E.², KANDIDOV V.P.¹
¹*Lomonosov Moscow State University*
²*N.L. Dukhov All-Russian Research Institute of Automatics, Moscow*
Formation of phase dislocations during filamentation of a pulse focused by an axicon under anomalous group velocity dispersion condition
65. MAKSIMOV D.N.^{1,2}, KOSTYUKOV A.S.¹, ERSHOV A.E.^{1,3}, BULGAKOV E.N.^{2,3}, GERASIMOV V.S.^{1,3}
¹*Siberian Federal University, Krasnoyarsk*
²*Kirensky Institute of Physics SB RAS, Krasnoyarsk*
³*Institute of Computational Modeling of SB RAS, Krasnoyarsk*
Thermo-optical hysteresis with bound states in the continuum
66. ZAITSEV V.D.^{1,2}, STAFEEV S.S.^{1,2}
¹*Image Processing Systems Institute – Branch of the Federal Scientific Research Centre “Crystallography and Photonics”, Samara*
²*Samara National Research University*
Superposition of a beam with linear polarization and a cylindrical vector beam in a sharp focus

67. RYZHIKOV P.S., MAKAROV V.A.
Lomonosov Moscow State University
The impact of nonlocal nonlinear optical response of medium on the angular momentum flux of propagating radiation
68. ALEFERKINA K.E., REMZOV A.D., SAVELYEV M.V.
Samara National Research University
Spatial spectrum of the concentration grating at four-wave mixing in a nanosuspension taking into account electrostriction and gravity field

Meeting 6

Friday, February 3, 2023, 9.00

69. RYAKHOVSKIY D.V., POPOV S.M., ISAEV V.A., KOLOSOVSKIY A.O., VOLOSHIN V.V., VOROB'EV I.L., CHAMOROVSKIY Yu.K.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Random fiber lasers with a cavity based on ytterbium doped optical fibers with arrays of fiber Bragg gratings
70. KULIKOVA V.A., VARZHEL S.V., DMITRIEV A.A., SAVIN V.V., KLISHINA V.A., KALYAZINA D.V.
ITMO University, Saint-Petersburg
Method for passive thermal compensation of optical parameters of fiber Bragg grating
71. TSYPKIN V.P., OSTAPIV A.Yu., IVANOV G.Yu., LARIONOV I.A., TYRTYSHNYY V.A.
IRE-Polus Corporation, Fryazino
Mutual influence of the intermode and fundamental-mode four-wave mixing of optical pulses in a few-mode optical fiber
72. USHAKOV N.A., MAKOVETSKAYA T.A.
Peter the Great Saint-Petersburg Polytechnic University
Spectral-domain biphoton interference applied to fiber-optic sensors and optical coherence tomography
73. CHUVYZGALOV A.A.^{1,2}, GILEV D.G.², KRISHTOP V.V.^{1,2,3}
¹Perm State National Research University
²Perm National Research Polytechnic University
³Perm Scientific-Industrial Instrument Making Company
Fiber optical current sensor
74. SUDAS D.P., YAKUSHCHEVA G.G., KUZNETZOV P.I.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Fiber-optic refractometer based on multilayer coatings of tin and titanium oxides
75. KOMISAROV V.A., DMITRIEV A.A., VARZHEL S.V., KOZLOVA A.I., VOLOSHINA A.L.
ITMO University, Saint-Petersburg
Study of spectral and temporal fluorescence characteristics of erbium doped optical fibers
76. SAECHNIKOV A.V., TCHERNIAVSKAIA E.A., SAETCHNIKOV V.A.
Belarusian State University, Minsk
Matrix of active microresonators for multichannel detection of antibody markers
77. DANILIN A.N.^{1,2}, KONDRATIEV N.M.¹, MINKOV K.N.¹
¹Russian Quantum Center, Skolkovo
²Lomonosov Moscow State University
Microresonators dispersion engineering by surface irregularity violation
78. SHULGA A.V., SHILOVA I.V.
Belarusian-Russian University, Mogilev, Belarus
Brewster coupling prisms for the intracavity excitation of guided modes
79. SINGH R.
Self-employed researcher, Moscow
The possibility of formation of quantum ghost images using a directional coupler
80. MOSENTOV S.N.
JSC «LLS, Saint-Petersburg
Modernization of the analog meter of laser radiation energy ILD-2M

POSTERS 3

Friday, February 3, 2023, 12.00

Meeting 7

Friday, February 3, 2023, 13.00

81. ZOTOV A.M.¹, KOROLENKO P.V.^{1,2}, KUBANOV R.T.¹, PAVLOV N.N.¹
¹Lomonosov Moscow State University
²Lebedev Physical Institute of the RAS, Moscow
Peculiarities of light beams propagation with small-scale dislocation structure
82. PROKOPOVA D.V., ABRAMOCHKIN E.G.
Samara Branch of the Lebedev Physical Institute of the RAS
Study of propagation in free space of light beams built on the basis of airy functions
83. DERGACHEV A.A., SHLENOV S.A.
Lomonosov Moscow State University
Formation and self-focusing of an axially asymmetric optical vortex in a noisy beam
84. TSIPLAKOVA E.G., PETROV N.V., PERRAUD J.-B.¹, CHOPARD A.^{1,2}, GUILLET J.-P.¹, SMOLYANSKAYA O.A., MOUNAIX P.¹
ITMO University, Saint-Petersburg
¹University of Bordeaux, France
²Lytid SAS, Paris, France
Terahertz phase retrieval by SBMIR with application of data extrapolation technique in the overexposed areas of intensity distributions

85. VOKHNIK O.M.¹, KOROLENKO P.V.^{1,2}, MOKHOV V.I.¹
¹Lomonosov Moscow State University
²Lebedev Physical Institute of the RAS, Moscow
Wavelet analysis of spatial coherence degree of dispersed light beams
86. SPIRIDONOV S.I., SHCHERBAKOV A.A.
ITMO University, Saint-Petersburg
The new formulation of the Fourier modal method without Li factorization
87. INKIN M.G., SKRIPAL A.V., DOBDIN S.Yu.
National Research Saratov State University named after N.G Chernyshevsky
Method for measuring distance according to the spectrum of frequency modulated laser autodyne
88. GEORGIEVA A.O., EZERSKII A.S., CHERNYKH A.V., PETROV N.V.
ITMO University, Saint-Petersburg
Numerical displacement of target wavefront formation plane in independent amplitude-phase modulation setup
89. MININA O.V.^{1,2}, GEINTS Yu.E.¹, ZEMLYANOV A.A.¹
¹V.E. Zuev Institute of Atmospheric Optics of SB RAS, Tomsk
²National Research Tomsk State University
Control over the propagation of high-power phase-modulated femtosecond laser pulses in air
90. NEBAVSKIY V.A., STARIKOV R.S., TRETYAKOV D.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Digital pre-distortion techniques for linearization microwave photonic links
91. GONCHAROV F.M., PERVUSHIN B.E., NASEDKIN B.A.
ITMO University, Saint-Petersburg
Optimization of reference pulses frequency for continuous-variable quantum key distribution
92. BRAGIN I.O., YUSHITSYNA V.V.
Southern Federal University, Taganrog
Secure communication channel based on quantum key distribution

POSTERS 4

Friday, February 3, 2023, 16.00

Meeting 8

Friday, February 3, 2023, 17.00

93. PANTSIALEYEVA Y.P., KABANOVA O.S., MELNIKOVA E.A.
Belarusian State University, Minsk
Polarization-holographic recording of liquid crystal diffraction gratings
94. KOTOV V.M.¹, AVERIN S.V.¹, SENKINA A.A.^{1,2}, BELOUSOVA A.S.^{1,3}
¹Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
²MIREA – Russian Technological University, Moscow
³Mytishchy Branch of Bauman Moscow State Technical University
Two-channel Fourier processing of two-dimensional images using multi phonon Bragg diffraction
95. FILATOV A.L.¹, LUKANINA V.M.^{1,2}
¹Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
²Shchelkovo College, Moscow region
Prospects for acoustooptic filters applications in a geostationary lightning detector
96. TSVETKOV M.V., PAVLOV I.N.
National Research University «Moscow Power Engineering Institute»
Using incoherent light source in the method of frustrated total internal reflection
97. ALONOVA M.V.¹, ZIMNYAKOV D.A.^{1,2}, SKRIPAL A.V.³, ULIANOVA O.V.³, FEDOROVA V.A.³
¹Yury Gagarin State Technical University, Saratov
²Institute of Precision Mechanics and Control of the RAS, Saratov
³National Research Saratov State University named after N.G Chernyshevsky
Polarization encoding of the structure of nucleotide sequences in sequenced DNA fragments of microorganisms: prospects for applications in bioinformatics
98. CHERESHNEV V.O., PROSKURIN S.G.
Tambov State Technical University
Research of regularities of the distribution of speckles in phantoms of biological tissues in optical coherence tomography
99. PAVLOV P.V., VLADIMIROV A.P.^{1,2}, STEPANOV A.R.
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A Gagarin, Voronezh
¹Institute of Mechanical Engineering of Ural Branch of the RAS, Yekaterinburg
²Ural State University, Yekaterinburg
Determining the value of movement of diffuse objects from the analysis of the parameters of digital speckle photography
100. PROHORENKOV N.O., VOLYNISKY M.A.
ITMO University, Saint-Petersburg
Investigation of tone rendering from test-object to image when digital hologram recorded by multiple wavelengths
101. IVANOV P.A.
Yaroslavl State Technical University
Methods of correlation image recognition with help of invariant MOSSE-filters
102. GAUGEL A.O., PAVLOV A.V.
ITMO University, Saint-Petersburg
Approximation of the transfer characteristic of the Fourier holography scheme for high-frequency holograms
103. SAECHNIKOV I.V., SKAKUN V.V., TCHERNIAVSKAIA E.A.
Belarusian State University, Minsk
Combined ML-based technique for dynamical objects identification and semantic analysis in optical flow

104. RYMOV D.A., STARIKOV R.S., CHEREMKHIN P.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Machine learning-based volume scene hologram generation

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105. GORYAEV M.A.
Herzen State Pedagogical University of Russia, Saint-Petersburg
Dye influence on the photo-EMF of the silicon n-p-n+ structure
106. MAKHMANOV U.K.^{1,2}, ESANOV S.A.¹, MUSURMONOV K.N.¹, SHUKUROV A.Kh.¹, DUSOV Y.³, ESHBOEV S.³
¹*Institute of Ion-Plasma and Laser Technologies, Uzbekistan Academy of Sciences, Tashkent*
²*National University of Uzbekistan named after Mirzo Ulugbek, Tashkent*
³*Termiz State University, Termiz, Uzbekistan*
Optical and structural properties of fullerene C₆₀ in binary solvents
107. BEZRUKOV P.A.¹, NASHEKIN A.V.², SIDOROV A.I.^{1,3}
¹*ITMO University, Saint-Petersburg*
²*Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg*
³*Saint-Petersburg State Electrotechnical University «LETI»*
Quantum efficiency of photocatalytic water splitting by changing conditions of copper iodide nanoporous layers
108. BOYCHENKO A.P., LIFIRENKO V.A.
Kuban State University, Krasnodar
Effect of preliminary thermal treatment of aluminum on the electroluminescence kinetics of its oxide during anodizing in distilled water
109. OSADCHENKO A.V.^{1,2,3}, ZAKHARCHUK I.A.^{1,2}, DAIBAGYA D.S.^{1,2,3}, SEL'YUKOV A.S.^{1,2,3}, AMBROZEVICH S.A.^{1,2}, GEKHT M.E.¹, RYZHOV A.V.², PEVTSOV N.V.², PEVTSOV D.N.^{4,5}
¹*Bauman Moscow State Technical University*
²*Lebedev Physical Institute of the RAS, Moscow*
³*Moscow Polytechnic University*
⁴*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
⁵*Federal Research Center of Problems of Chemical Physics and Medicinal Chemistry of the RAS, Chernogolovka*
Luminescence of europium (III) complexes with β -diketones and carboxylic acids
110. IZMAILOVA N.V., SAMSONOVA L.G.
National Research Tomsk State University
Study of the luminescent properties of organic molecules with thermally activated delayed fluorescence in OLED
111. LETUTA S.N., ISHEMGULOV A.T.
Orenburg State University
Kinetics of triplet-triplet absorption of molecules under two-quantum excitation
112. CHERNOV D.V., BOYCHENKO A.P.
Kuban State University, Krasnodar
Hardware-software control of anodizing metals by their electroluminescence
113. BARANOV M.A., KARAMYSHEVA S.P., ORLOVA A.O., REZNIK I.A.
ITMO University, Saint-Petersburg
Research of the optical properties of AgInS₂ quantum dots formed in a microfluid chip
114. OSKOLKOVA T.O.¹, MATUSHKINA A.A.¹, SEWID F.A.^{1,2}, ORLOVA A.O.¹
¹*ITMO University, Saint-Petersburg*
²*Mansoura University, Mansoura, Egypt*
Optical properties of polymer nanocomposites based on AgInS₂/ZnS quantum dots and photosensitizer molecules
115. EVSTROPIEV S.K.^{1,2,3}, SARATOVSKII A.S.^{2,4}, BULYGA D.V.¹, STOLYAROVA V.L.^{4,5}, KNYAZYAN N.B.⁶
¹*ITMO University, Saint-Petersburg*
²*Saint-Petersburg State Institute of Technology (Technical University)*
³*S.I. Vavilov State Optical Institute, Saint-Petersburg*
⁴*Grebenshchikov Institute of Silicate Chemistry of the RAS, Saint-Petersburg*
⁵*Saint-Petersburg State University*
⁶*Institute of General and Inorganic Chemistry of NAS of Armenia, Yerevan*
Luminescent sol-gel MgO-Al₂O₃-ZrO₂-SiO₂-Mn²⁺ materials
116. SANNIKOVA M.D., MARASANOV D.V., SGIBNEV Ye.M., KULJPINA E.V., MIRONOV L.Yu.
ITMO University, Saint-Petersburg
The quenching mechanism of luminescence of silver clusters in silicate glass
117. MARASANOV D.V., SANNIKOVA M.D., KULJPINA E.V., SGIBNEV Ye.M., MIRONOV L.Yu.
ITMO University, Saint-Petersburg
Influence of antimony ions on the spectral and luminescent properties of silver clusters in ion-exchanged layers of sodium silicate glass
118. SLOBOZHANINOV A.A., MARASANOV D.V., KULJPINA E.V., SANNIKOVA M.D., KHARISOVA R.D., SGIBNEV Ye.M., MIRONOV L.Yu.
ITMO University, Saint-Petersburg
Research of photobleaching of silver clusters in silica-based glass
119. GUSHCHIN S.V., KUZNETSOV S.V.¹, LYAPIN A.A., PROYDAKOVA V.Yu.¹, RYABOCHKINA P.A., FEDOROV P.P.¹
National Research Mordovian State University named after N.P. Ogarev, Saransk
¹*Prokhorov General Physics Institute of the RAS, Moscow*
Enhancement of up-conversion luminescence of SrF₂:Ho phosphors using co-doping Yb³⁺ ions upon excitation of two micron laser radiation
120. GAVRILOVA M.A.¹, SHELEMANOV A.A.², GAVRILOVA D.A.¹, EVSTROPIEV S.K.^{1,2,3}
¹*Saint-Petersburg State Institute of Technology (Technical University)*
²*ITMO University, Saint-Petersburg*
³*S.I. Vavilov State Optical Institute, Saint-Petersburg*
Morphology effect on the luminescence and adsorption properties of nanocrystalline ZnO

121. GEINTS Yu.E., PANINA E.K.
V.E. Zuev Institute of Atmospheric Optics, SB RAS, Tomsk
FDTD simulation of IR-absorption by a spherical microcapsule surrounded by solid nanoparticles
122. BULYGA D.V.¹, EVSTROPIEV S.K.^{1,2,3}, GAVRILOVA D.A.², MOUSSAOUI A.¹
¹ITMO University, Saint-Petersburg
²Saint-Petersburg State Technological Institute (Technical University)
³S.I. Vavilov State Optical Institute, Saint-Petersburg
Study on structural and luminescent properties of Y₂O₃-Gd₂O₃:Ce³⁺ synthesized via polymer-salt method
123. KUZMENKO N.K.¹, KOLOBKOVA E.V.^{1,2}, LOGUNOV L.S.¹, NIKONOROV N.V.¹, MAKAROV S.V.¹
¹ITMO University, Saint-Petersburg
²Saint-Petersburg State Technological Institute (Technical University)
Study of the spectral and luminescent properties of perovskite nanocrystals in a fluorophosphates matrix obtained by the method of photo-induced crystallization
124. BULYGA D.V.¹, GAVRILOVA D.A.², EVSTROPIEV S.K.^{1,2,3}, VOLYNKIN V.M.³
¹ITMO University, Saint-Petersburg
²Saint-Petersburg State Technological Institute (Technical University)
³S.I. Vavilov State Optical Institute, Saint-Petersburg
Influence of isomorphic substitution of Y³⁺ by Gd³⁺ in YAG:Ce³⁺ nanopowders on their structural and luminescent properties
125. BUKHAROV D.N., SAMYSHKIN V.D., LELEKOVA A.F., ABRAMOV A.S.
Vladimir State University named after Alexander and Nikolay Stoletovs
Simulation of the photoelectric properties of a thin C-Au film
126. MUSSABEKOVA A.K., AIMUKHANOV A.K., ZHAKANOVA A.M., KOMANDIR B.
Karaganda Buketov University, Kazakhstan
Effect of structural features of SnO₂ on the electrophysical properties of films
127. DAIBAGYA D.S.^{1,2,3}, ZAKHARCHUK I.A.^{1,2}, OSADCHENKO A.V.^{1,2,3}, SEL'YUKOV A.S.^{1,2,3}, AMBROZEVICH S.A.^{1,2}, SKORIKOV M.L.², GEKHT M.E.¹, VASILIEV R.B.⁴
¹Bauman Moscow State Technical University
²Lebedev Physical Institute of the RAS, Moscow
³Moscow Polytechnic University
⁴Lomonosov Moscow State University
Spectral manifestations of the quantum confinement effect in ultrathin cadmium selenide nanoplatelets
128. VASILYUK G.T., KARPACH P.V., MASKEVICH A.A., GLEBOVICH T.S., AYT A.O.¹, VENIDIKTOVA O.V.¹, VALOVA T.M.¹, MASKEVICH S.A.²
Janka Kupala State University, Grodno, Belarus
¹Photochemistry Center of FSRC «Crystallography and Photonics» of the RAS, Moscow
²International Sakharov Environmental Institute of Belarusian State University, Minsk
Manifestation of photochromism in the IR spectra of nanocomposites based on diarylethene and silver nanoparticles
129. KARPACH P.V., VASILYUK G.T., GOGOLEVA S.D., OZHOGIN I.V.¹, PUGACHEV A.D.¹, LUKYANOV B.S.¹, MASKEVICH S.A.²
Janka Kupala State University, Grodno, Belarus
¹Institute of Physical and Organic Chemistry, Southern Federal University, Rostov-on-Don
²International Sakharov Environmental Institute of Belarusian State University, Minsk
Raman scattering enhancement in nanocomposites based on bis-spiropyran and silver nanoparticles
130. GEINTS Yu.E., PANINA E.K., PANIN K.S.¹
V.E. Zuev Institute of Atmospheric Optics, SB RAS, Tomsk
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Influence of small surface distortions of dielectric microspheres on the parameters of formed photonic nanojets
131. EGHBALI A., VYSHNEVYY A.A.
Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
Optical properties of radially anisotropic nanospheres by ultrashort laser pulses
132. LOZOVY K.A., DIRKO V.V., KUKENOV O.I., KOKHANENKO A.P.
National Research Tomsk State University
Temperature peculiarities of superstructure transitions during growth of Ge/Si (111) nanostructures
133. KROL I.M., RUNINA K.I., PIYAKINA A.A., SCHIGOLEVA E.M., BARINOVA O.P.
Mendeleev University of Chemical Technology of Russia, Moscow
Study of absorption spectra in visible and IR range of cobalt-containing zinc borosilicate glass material
134. PESNYAKOV V.V., IGNATIEV A.I., NIKONOROV N.V.
ITMO University, Saint-Petersburg
Investigation of the effect of thermal treatment on the formation of the hybrid nanostructures Ag-NaBr/AgBr in bromide photo-thermo-refractive glasses doped with Yb
135. KULJPINA E.V., BABKINA A.N., ZYRYANOVA K.S.
ITMO University, Saint-Petersburg
Structural studies of lithium zinc germanate glass-ceramics with manganese
136. MIKHAREV E.A.¹, LUNEV A.Yu.¹, SIDOROV A.I.^{1,2}
¹Saint-Petersburg State Electrotechnical University «LETI»
²ITMO University, Saint-Petersburg
Mathematical simulation of PTR glass microresonators with silver molecular clusters for investigation of laser generation processes
137. LUNEV A.Yu.¹, MIKHAREV E.A.¹, SIDOROV A.I.^{1,2}
Peter the Great Saint-Petersburg Polytechnic University
¹ITMO University, Saint-Petersburg
²Saint-Petersburg State Electrotechnical University «LETI»
Numerical simulation of dispersion in a silicate glass spherical cavity with semiconductor oxide nanoparticles
138. IZBASAROVA E.A.¹, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan
Optical heating of silicon AFM cantilevers

139. GORBATOVA A.V., BURYAKOV A.M., MISHINA E.D.
MIREA – Russian Technological University, Moscow
Co/TMD heterostructure for THz spintronic emitter: analysis of optical absorption in a ferromagnetic layer for effective THz emission
140. VOITSEKHOVSKII A.V., DZYADUKH S.M., GORN D.I., MIKHAILOV N.N.¹, DVORETSKY S.A.¹, MENSHIKOV R.V.¹, SIDOROV G.Yu.¹, UZHAKOV I.N.¹, YAKUSHEV M.V.¹
National Research Tomsk State University
¹Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk
Electrophysical characteristics of unipolar NBN structures based on HgCdTe with a superlattice in the barrier region
141. LEVKOVSKAYA V.M.¹, KHARITONOV A.V.¹, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Applied Research of Tatarstan Academy of Sciences, Kazan
Thermometry of nonuniformly heated nanostructures based on Raman spectroscopy
142. LEBEDEVA E.D., BURYAKOV A.M., AVDEEV P.Yu., GORBATOVA A.V.
MIREA – Russian Technological University, Moscow
Investigation of THz radiation parameters in Co/WSe₂ and Co/IrMn₃ structures
143. CHMEREVA T.M., KUCHERENKO M.G., MUSHIN F.Yu.
Orenburg State University
Interaction of one-dimensional surface plasmons with organic molecules of the dielectric core of nanowire
144. MAYDYKOVSKIY A.I., MAMONOV E.A., NOVIKOV V.B., MURZINA T.V.
Lomonosov Moscow State University
Mapping of the domain structure of the subsurface layer of iron-garnet by optical second harmonic generation microscopy
145. KRUCHININ N.Yu., KUCHERENKO M.G.
Orenburg State University
Conformations of uniformly charged polypeptides on the surface of a polarized oblate plasmonic nanospheroid
146. AVDEEV P.Yu., GORBATOVA A.V., BEZVIKONNYI N.V., OVCHARENKO S.V., LEBEDEVA E.D., BURYAKOV A.M.
MIREA – Russian Technological University, Moscow
The effect of the hybrid spintronic emitter interface on the efficiency of THz radiation generation
147. GAZIZOV A.R.^{1,2}, SALAKHOV M.Kh.^{1,2}, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Applied Research of Tatarstan Academy of Sciences, Kazan
Optomechanical cooling of a harmonic oscillator using enhanced Raman scattering
148. HOPERSKY A.N., NADOLINSKY A.M., KONEEV R.V., ANDREEVA O.B.
Rostov State Transport University, Rostov-on-Don
Recombination radiation and Compton photoexcitation in the scattering of a photon by an atomic ion
149. DASHCHINSKII A.A., KORETS D.A., FILATOV V.V.
Bauman Moscow State Technical University
Bose-Einstein condensation of light in photonic crystals
150. ASTASHKEVICH S.A., KUDRYAVTSEV A.A.
Saint-Petersburg State University
Comparative analysis of parameters of Na-Ar and Cs-Ar resonance photoplasmas
151. MANDOUR M.M.¹, ASTASHKEVICH S.A., KUDRYAVTSEV A.A.
Saint-Petersburg State University
¹Zagazig University, Egypt
Effect of collisional broadening of the D1 and D2 lines of Na on characteristics of Na-Ar photoplasma
152. ALIMKINA I.S.¹, FILATOV V.V.
Bauman Moscow State Technical University
¹Lebedev Physical Institute of the RAS, Moscow
Nonlinear optical effect in ruby
153. MALETS M.A., TRINH N.H.¹, FOKINA M.A., PATAPOVICH M.P.
Belarusian Academy of Communications, Minsk
¹Vinh University, Hanoi, Vietnam
Studying the possibility of creating gas-sensitive sensors by laser atomic-emission spectrometry
154. TRINH N.H.¹, MALETS M.A., PATAPOVICH M.P.
Belarusian Academy of Communications, Minsk
¹Vinh University, Hanoi, Vietnam
Deposition of nanoclusters of composite materials on the surface of the glass during laser ablation of a target
155. TRINH N.H.¹, YAGELO A.E., PATAPOVICH M.P.
Belarusian Academy of Communications, Minsk
¹Vinh University, Hanoi, Vietnam
The process of plasmaformation near the surface of multicomponent alloys during laser ablation
156. POLETAEV D.A., SOKOLENKO B.V.
V.I. Vernadsky Crimean Federal University, Simferopol
The estimation the possibilities of using optical radiation for plasma confinement in fusion setups

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157. KOZHEVNIKOV V.A., APUSHKINSKIY E.G., BIRYUKOV A.M.
Peter the Great Saint-Petersburg Polytechnic University
Gain of He-Ne laser with exotic section of active element
158. KOZHEVNIKOV V.A., PRIVALOV V.E.
Peter the Great Saint-Petersburg Polytechnic University
Output power of He-Ne laser with an elliptical tube section, taking into account changes in the population inversion on the axis

159. AKHMETOVA O.A.¹, ZEMLYANOV A.A.², MININA O.V.^{1,2}
¹National Research Tomsk State University
²V.E. Zuev Institute of Atmospheric Optics, SB RAS, Tomsk
Estimates of the intensity at the points of beginning of the collapse stop and nonlinear focus during propagation of high-power femtosecond laser radiation
160. ANDREICHNIKOV K.S.¹, VOVCHEENKO E.D., GERASIMOV I.V., MELEKHOV A.P., RAMAKOTI R.Sh., SAENKO S.V., SALAKHUTDINOV G.H., SREDIN V.G.²
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
¹JSC «Moscow Plant «SAPHIR»
²Peter the Great Military Academy of Strategic Rocket Forces, Balashikha
Effect of soft X-ray radiation on the capacitor-voltage characteristics of indium antimonide films
161. MOZHAEVA M.D.^{1,2}, KORSHUNOV A.A.^{1,2}, GARMATINA A.A.^{2,3}, GORDIENKO V.M.², DYMSHITS Yu.M.², KOLDAEV V.V.², DYACHKOVA I.G.², ASADCHIKOV V.E.², MINAEV N.V.⁴
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Shubnikov Institute of Crystallography of FSRC «Crystallography and Photonics» of the RAS, Moscow
³National Research Centre «Kurchatov Institute», Moscow
⁴Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Generation of x-ray pulses when exposed to the sharp-focused radiation of a fiber laser on a copper target: towards the creation of a microfocus X-ray source
162. KORSHUNOV A.A.^{1,2}, MOZHAEVA M.D.^{1,2}, GARMATINA A.A.^{2,3}, GORDIENKO V.M.², DYMSHITS Yu.M.², KOLDAEV V.V.², DYACHKOVA I.G.², ASADCHIKOV V.E.², MINAEV N.V.⁴
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Shubnikov Institute of Crystallography of FSRC «Crystallography and Photonics» of the RAS, Moscow
³National Research Centre «Kurchatov Institute», Moscow
⁴Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Technical aspects of the development of characteristics X-ray emission source based on low-energy femtosecond fiber laser with the estimation of source's size
163. VASILIEVA A.V., KAREVA A.K.¹, PARFENOV V.A.
Saint-Petersburg State Electrotechnical University «LETI»
¹Saint-Petersburg State Academy of Art and Industry named after A.L. Stieglitz
Combined method of cleaning a multilayer painted gypsum bas-relief
164. KOVALENKO M.N., ALEKSEENKO N.A.¹, MARKOVA L.V.¹, RUTKOVSKAYA L.S., ZAJOGIN A.P.
Belarusian State University, Minsk
¹Powder Metallurgy Institute, Minsk, Belarus
Studies of the synthesis of precursor nanopowders for the production of nanoceramics of the MgAl₂O₄ type doped with Fe when exposed to AMg2 and Mg95 alloys by double laser pulses in the air atmosphere
165. KOVALENKO M.N., ALEKSEENKO N.A.¹, MARKOVA L.V.¹, RUTKOVSKAYA L.S., ZAJOGIN A.P.
Belarusian State University, Minsk
¹Powder Metallurgy Institute, Minsk, Belarus
Studies of the processes of synthesis of precursor nanofilms for the production of CuAlO₂-type nanoceramics doped with Mg when exposed to AMg2 and M2 alloys by double laser pulses in an air atmosphere
166. LEBEDEVA Ya.S., SMAYEV M.P.¹, BUDAGOVSKY I.A.¹, LAZARENKO P.I.
National Research University of Electronic Technology «MIET», Zelenograd
¹Lebedev Physical Institute of the RAS, Moscow
Laser crystallization of thin films of Ge₂Sb₂Te₅ and Sb₂Se₃ amorphous chalcogenides
167. OREKHOVA N.A.¹, PUKHTEEV A.O.¹, CHARITONCHIK R.A.¹, ZAJOGIN A.P.
Belarusian State University, Minsk
¹Secondary School No. 64, Minsk, Belarus
Study of the distribution of iron-nickel phases in the Bragin meteorite by laser atomic emission multichannel spectrometry
168. OREKHOVA N.A.¹, PUKHTEEV A.O.¹, CHARITONCHIK R.A.¹, ZAJOGIN A.P.
Belarusian State University, Minsk
¹Secondary School № 64, Minsk, Belarus
Investigations of an iron meteorite sample by laser atomic emission multichannel spectrometry
169. OLKHOVA A.A., PATRIKEEVA A.A., DUBKOVA M.A., SERGEEV M.M.
ITMO University, Saint-Petersburg
Semiconductor PbSe films laser processing by continuous and impulse irradiation to improve detector photosensitive characteristics for gas analyzing applications
170. EGOROV A.N., MAVRITSKIY O.B., KHOLINA M.S., ZENKEVICH A.V.¹, VOLODINA N.O.¹
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
¹Moscow Institute of Physics and Technology (State University), Dolgoprudny
Modeling of pulsed laser annealing of HZO-based ferroelectric structures
171. KOVALENKO M.N., ALEKSEENKO N.A.¹, VOROPAY E.S., RUTKOVSKAYA L.S., ZAJOGIN A.P.
Belarusian State University, Minsk
¹Powder Metallurgy Institute, Minsk, Belarus
Investigation of the processes of obtaining gas-sensitive thin-film resistors from copper oxides doped with zinc during laser spraying of copper and zinc in an air atmosphere
172. KOVALENKO M.N., ALEKSEENKO N.A.¹, VOROPAY E.S., RUTKOVSKAYA L.S., ZAJOGIN A.P.
Belarusian State University, Minsk
¹Powder Metallurgy Institute, Minsk, Belarus
Investigation of the processes of obtaining gas-sensitive nanofilm resistors from copper oxides doped with iron during laser spraying of copper and iron in the air atmosphere
173. TITOVETS P.A., KAZANTSEV S.Yu., SMOLSKII A.A.
Moscow Technical University of Communications and Informatics
Facility for investigation of adaptive antenna elements with laser control

174. MINAEV S.E.^{1,2}, MINAEVA E.D.^{1,2}, NIKITIN N.S.^{3,4}, GULYASHKO A.S.⁵, LARIONOV I.A.⁵, TYRTYSHNYY V.A.⁵, MINAEV N.V.², YUSUPOV V.I.²
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
³Center for Theoretical Problems of Physicochemical Pharmacology of the RAS, Moscow
⁴Pirogov Russian National Research Medical University, Moscow
⁵IRE-Polus Corporation, Fryazino
The effect of 3-microns pulsed laser radiation on soft biological tissue
175. YANDYBAEVA Yu.I.¹, LI Ch.¹, KAFEEVA D.A.¹, KESAEV V.V.^{1,2}, ANDREEVA O.V.¹, ZAKOLDAEV R.A.¹
¹ITMO University, Saint-Petersburg
²Lebedev Physical Institute of the RAS, Moscow
Direct laser writing of birefringent structures in nanoporous silicate matrix
176. NEELOVA A.D., SHEPILOVA E.M.¹, NOSOVA E.I.¹, RONGONEN S.L.², PARFENOV V.A.
Saint-Petersburg State Electrotechnical University «LETI»
¹Saint-Petersburg Institute of History of the RAS
²Saint-Petersburg Branch of Archive of the RAS
A study of chemical and mechanical properties of paper under its laser cleaning
177. SHISHKINA A.S., ANDREEVA O.V., ZAKOLDAEV R.A.
ITMO University, Saint-Petersburg
Optofluidic microchannel fabrication in porous glass by ultrashort laser pulses
178. TITOVETS P.A., FEDYUK M.O., SMOLSKII A.A.
Moscow Technical University of Communications and Informatics
Experimental study of the absorption of optical radiation of different wavelengths in fresh water and the atmosphere
179. SEDOVA Yu.K.^{1,2}, MINAEVA S.A.², VINAROV A.Z.³, MINAEV N.V.²
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
³Sechenov First Moscow State Medical University
Study of kidney stones by the method of Raman spectroscopy
180. SKRYBYKINA A.A.^{1,2}, KOSTROMYKINA V.V.^{1,2}, ROGOZHNIKOV G.S.²
¹Sarov Branch of Lomonosov Moscow State University, Nizhny Novgorod region
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⁴Centre for Researches of Ions, Materials and Photonics, Caen, France
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¹Petrozavodsk State University
²I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC Kola Science Center of the RAS, Apatity, Murmansk region
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¹Institute of Solid State Physics Bulgarian Academy of Sciences, Sofia, Bulgaria
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¹*Perm Scientific-Industrial Instrument Making Company*
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