

CONFERENCE OPENING. PLENARY

Wednesday, January 29, 2020, 10.00

Room 406

1. KUPPERS F.
Skolkovo Institute of Science and Technology, Moscow region
Optical computing: all-optical majority gates based on an injection-locked lasers
2. ROMASHKO R.V.
Institute of Automation and Control Processes of FEB RAS, Vladivostok
Adaptive laser interferometry in acoustic measurements
3. KOZLOV S.A.¹, MELNICK M.V.¹, ZHUKOVA M.O.¹, VORONTSOVA I.O.¹, PUTILIN S.E.¹, TCYPKIN A.N.¹, ZHANG X.-C.^{1,2,3}, YIWEN E.²
¹*ITMO University, Saint-Petersburg*
²*University of Rochester, USA*
³*University of Ottawa, Canada*
High nonlinearity of the refractive index of a number of liquids in the terahertz spectral range
4. STARIKOV R.S.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Photonic analog-digital devices for microwave systems

POSTERS 1

Wednesday, January 29, 2020, 12.00

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POSTERS 2

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Meeting 1

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5. MAKSIMENKO V.A.
Far Eastern State Transport University, Khabarovsk
Peculiarities of the photoinduced light scattering kinetics in LiNbO₃:Fe crystal in the case of previous irradiation with noncoherent light
6. SAVCHENKOV E.N., SHANDAROV S.M., SMIRNOV S.V., DUBIKOV A.V., SHUR V.Ya.¹, AKHMATKHANOV A.R.¹, ESIN A.A.¹
Tomsk State University of Control Systems and Radioelectronics
¹*Ural State University, Ekaterinburg*
Light diffraction on periodically poled domain structures with inclined walls in lithium niobate crystal in an applied static electric voltage
7. SMIRNOV M.V., SIDOROV N.V., PALATNIKOV M.N., PIKULEV V.B.¹
I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC «Kola Science Centre of the RAS», Apatity, Murmansk region
¹*Petrozavodsk State University*
The features of photoluminescence of lithium niobate single crystals of different composition and genesis
8. SHUGUROV A.I.¹, BODROV S.B.^{1,2}, BAKUNOV M.I.¹
¹*Lobachevsky State University of Nizhny Novgorod*
²*Institute of Applied Physics of the RAS, Nizhny Novgorod*
Ellipsometric detection of terahertz waves in lithium niobate in degenerate configuration
9. TRETIAKOV S.A., KAPLUNOV I.A., IVANOVA A.I.
Tver State University
The degradation of platinum films on surfaces of single crystals at heating
10. CHIZHIKOV A.I., YUSHKOV K.B., MOLCHANOV V.Ya.
National University of Science and Technology "MISIS", Moscow
Acousto-optic modulator based on NaBi(MoO₄)₂ crystal
11. ZHURIN T.A., SHANDAROV S.M., SIM E.S., KISTENEVA M.G.
Tomsk State University of Control Systems and Radioelectronics
Differential characteristics of the transmission spectra of sillenite crystals
12. NOVOKOVSKAYA A.L., KURNIKOV M.A., BAKUNOV M.I.
Lobachevsky State University of Nizhny Novgorod
Conversion of terahertz pulses at an ionization front in a GaP crystal
13. KURNIKOV M.A., BAKUNOV M.I.
Lobachevsky State University of Nizhny Novgorod
Optical-to-terahertz conversion in a ZnTe crystal in the regime of free carrier generation
14. NIKOLAEV N.A.^{1,2}, MAMRASHEV A.A.¹, ANDREEV Yu.M.^{3,4}, LANSKII G.V.³
¹*Institute of Automation and Electrometry of SB RAS, Novosibirsk*
²*Institute of Laser Physics of SB RAS, Novosibirsk*
³*Institute of Monitoring of Climatic and Ecological Systems of SB RAS, Tomsk*
⁴*National Research Tomsk State University*
Optical properties of bismuth torborate and prospects for application in the terahertz range

15. AMANOVA M.A., SHEPELEVICH V.V., MAKAREVICH A.V., NAUNYKA V.N.
Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
Study of the contributions of the reverse piezoelectric effect, photoelasticity and optical activity on the diffraction efficiency of holograms, formed in the photorefractive crystal $\text{Bi}_{12}\text{SiO}_{20}$
16. BOLDYREV K.N.^{1,2}, SULEIMEN E.^{1,2}, POPOVA M.N.¹
¹*Institute for Spectroscopy of the RAS, Troitsk*
²*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
Anticrossing of hyperfine levels in the luminescence spectra in $\text{LiYF}_4:\text{Ho}^{3+}$

Meeting 2

Wednesday, January 29, 2020, 13.00

Room 407

17. MIS'KEVICH A.I.^{1,2}, PODKOPAEV A.V.²
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*Institute for Physics and Power Engineering named after A.I. Leypunsky, Obninsk, Kaluga region*
Buffer gas effect on spectral characteristic of luminescence in Ar-Xe- $\text{C}_2\text{HBrClF}_3$ and Ne-Xe- $\text{C}_2\text{HBrClF}_3$ gas mixtures with uranium fission fragments excitation
18. OVECHENKO D.S., BOYCHENKO A.P., NIKITIN V.A.,
Kuban State University, Krasnodar
Change of Al_2O_3 structure at registration its non-electrolysis electroluminescence
19. KONSTANTINOVA E.I., SLEZHKIN V.A., BRYUKHANOV V.V.¹
Kaliningrad State Technical University
¹*Immanuel Kant Baltic Federal University, Kaliningrad*
Luminescence kinetics of self-ordered CdZnSeS/ZnS quantum dots near resonance-excited nanoparticles of island silver film
20. METLINA D.A.¹, METLIN M.T.^{1,2}, AMBROZEVICH S.A.^{1,2,3}, TAIDAKOV I.V.¹
¹*Lebedev Physical Institute of the RAS, Moscow*
²*Bauman Moscow State Technical University*
³*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
The nonradioactive relaxation probability dependence from the fluorination chain length in pyrazole-containing 1,3-dicetonate Nd(III) coordination compounds
21. CHERPAK P.S., IVANOV G.Yu., LARIONOV I.A., TYRTYSHNYY V.A.¹
Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
¹*IRE-Polus Corporation, Fryazino*
Heating of siloxane polymers by powerful laser radiation exiting through the side surface of an optical fiber
22. KOLYADIN A.N., KOSOLAPOV A.F., BUFETOV I.A.
Fiber Optic Research Center of the RAS, Moscow
Temperature of the optical discharge in hollow-core optical fibers under threshold conditions
23. RIZAEV G.E.¹, MOKROUSOVA D.V.¹, SAVINOV S.A.¹, SELEZNEV L.V.¹, GRUDTSYN Ya.V.¹, KORIBUT A.V.¹, SHIPILO D.E.^{1,2}, PANOV N.A.^{1,2}, MITYAGIN Yu.A.¹, KOSAREVA O.G.^{1,2}, IONIN A.A.¹
Lebedev Physical Institute of the RAS, Moscow
¹*Lomonosov Moscow State University*
Terahertz radiation generated in plasma of single-color filament
24. YURLOV I.A., RYABOCHKINA P.A., KHRUSHCHALINA S.A., EGORYSHEVA A.V.¹, GOLODUKHINA S.V.¹
National Research Mordovian State University named after N.P. Ogarev, Saransk
¹*Kurnakov Institute of General and Inorganic Chemistry of the RAS, Moscow*
Features of interaction of laser radiation with high power density with nanosized $\text{ZrO}_2\text{-Y}_2\text{O}_3$ and $\text{CaF}_2\text{-ErF}_3$ particles
25. EPIFANOV E.O., SHUBNIY A.G., MINAEV N.V.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Efficiency of laser-induced backside wet microstructuring of sapphire increases with pressure
26. MAKIN V.S.^{1,2}, MAKIN R.S.³, LOGACHEVA E.I.¹
¹*Institute for Nuclear Energetic, Sosnovy Bor, Leningrad region*
²*Scientific and Design Center for Optoelectronic Observation Complexes - Branch of JSC "Kometa Corporation", Saint-Petersburg*
³*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
Destruction and ordered nanostructures production under the interaction of ultrashort pulses of UV laser radiation with dielectrics and universal polariton model
27. EPIFANOV E.O., SHUBNIY A.G., MINAEV N.V., RYBALTOVSKY A.O., PARENAGO O.P.¹
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
¹*A.V. Topchiev Institute of Petrochemical Synthesis of the RAS, Moscow*
Laser ablation of palladium target in supercritical carbon dioxide media followed by laser melting of nanoparticles into the mesoporous Al_2O_3 powder
28. KALINNIKOV D.S., ZYUBIN A.Yu., SAMUSEV I.G.
Immanuel Kant Baltic Federal University, Kaliningrad
Synthesis of gold and silver nanoparticles by femtosecond laser ablation for plasmon-enhanced fluorescence of dyes

Meeting 3

Wednesday, January 29, 2020, 16.00

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29. IONIN A.A., KINYAEVSKIY I.O., KLIMACHEV Yu.M., KOZLOV A.Yu., KOTKOV A.A., SAGITOVA A.M., SINITSYN D.V.
Lebedev Physical Institute of the RAS, Moscow
Temperature phase-matching tuning in $\text{BaGa}_2\text{GeSe}_6$ crystal

30. ALOIAN G.A.¹, KOVALENKO N.V.¹, AGAFONOV V.M.¹, MUKHANKOV D.M.², KONYASHKIN A.V.^{1,2}, RYABUSHKIN O.A.^{1,2}
¹Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
²Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
The equivalent temperature concept of materials under inhomogeneous temperature distribution
31. DOLGANOV P.V.¹, BAKLANOVA K.D.^{1,2}, DOLGANOV V.K.¹
¹Institute of Solid State Physics of the RAS, Chernogolovka
²National Research University Higher School of Economics, Moscow
Peculiarities of optical properties and photonic density of states of cholesteric photonic crystals
32. ZHEVAIKIN K.E., FOKINA M.I., SHIROKOVA A.S.
ITMO University, Saint-Petersburg
Study of the influence of the crystalline size of organic nonlinear optical co-crystals of aminopyridine-nitrophenol on the intensity of the second harmonic generation
33. AVDEEVA A.Yu.¹, VETROV S.Ya.^{1,2}, PYATNOV M.V.^{1,2}, RUDAKOVA N.V.^{1,2}, TIMOFEEV I.V.^{1,2}
¹Kirensky Institute of Physics of SB RAS, Krasnoyarsk
²Siberian Federal University, Krasnoyarsk
Chiral optical Tamm states at the interface between an anisotropic mirror and a cholesteric with dye
34. ROMASHKINA A.M., NOVIKOV V.B., MURZINA T.V.
Lomonosov Moscow State University
Magneto-optical effects and second harmonic generation in magnetoplasmonic crystals based on bimetallic films
35. ANIKEEVA V.E.^{1,2}, BOLDYREV K.N.^{1,2}, SEMENOVA O.I.³
¹Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
²Institute for Spectroscopy of the RAS, Troitsk
³Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk
Study of phase transitions in perspective for photovoltaic MAPbI₃ crystals
36. ZABOLOTSKY M.S.^{1,2}, KATSABA A.V.^{1,2}, AMBROZEVICH S.A.^{1,2,3}, VITUKHNOVSKY A.G.^{1,2}
¹Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
²Lebedev Physical Institute of the RAS, Moscow
³Bauman Moscow State Technical University
Photodegradation process in colloidal CdS/ZnSe nanocrystals
37. METLIN M.T.^{1,2}, AMBROZEVICH S.A.^{1,2,3}, TAIDAKOV I.V.¹, FEDYANIN V.V.⁴, TANANAEV P.N.⁵
¹Lebedev Physical Institute of the RAS, Moscow
²Bauman Moscow State Technical University
³Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
⁴Moscow Pedagogical State University
⁵Scientific and Technological Center "Nanotech-Dubna", Dubna
Infrared single photon emitters based on CdSe/CdS/ZnS colloidal nanocrystals and 1,3-diketones of Nd(III) ion
38. RADIONOV M.S.^{1,2}, PESCHANSKII A.V.³, NOVIKOVA N.N.¹, YAKOVLEV V.A.¹, KLIMIN S.A.¹
¹Institute for Spectroscopy of the RAS, Troitsk
²Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
³B. Verkin Institute for Low Temperature Physics and Engineering of the NAS of Ukraine, Khar'kov
IR phonons and spin-phonon interaction in LiNiPO₄

Meeting 4

Wednesday, January 29, 2020, 16.00

Room 407

39. ISKHAKOVA L.D., MILOVICH F.O., MASHINSKY V.M., VELMISKIN V.V., PLASTININ E.A., VASILIEV A.L.¹, BONDARENKO V.I.², PRESNIAKOV M.Yu.¹
Fiber Optic Research Center of the RAS, Moscow
¹National Research Centre "Kurchatov Institute", Moscow
²Shubnikov Institute of Crystallography of FSRC «Crystallography and Photonics» of the RAS, Moscow
Bismuth-doped silica fibers, preforms and glasses: microstructure, composition, nanocrystalline inclusions and Bi-clusters
40. KOPYEVA M.S., NIKOLAEV N.E., CHEKHLOVA T.K.
Peoples' Friendship University of Russia (RUDN University), Moscow
Optical properties of composite media with metal nanoparticles of various shapes
41. UMANSKAYA S.F., KUDRYAVTSEVA A.D., TCHERNIEGA N.V., SHEVCHENKO M.A.
Lebedev Physical Institute of the RAS, Moscow
Ruby nanoparticles: production and optical properties
42. SAPARINA S.V.¹, KHARINCEV S.S.^{1,2}, FISHMAN A.I.¹, STOLOV A.A.³
¹Kazan Federal University
²Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan
³Optical Fiber Solutions, Avon, USA
The investigation of carbon nanocomposite films through the use of electro- and thermo-assisted tip-enhanced Raman scattering methods
43. NOVIKOVA N.N., YAKOVLEV V.A., KUCHERENKO I.V.¹, MURATOV A.V.¹, KARCZEWSKI G.², SCHREYECK S.³
Lebedev Physical Institute of the RAS, Moscow
¹Institute for Spectroscopy of the RAS, Troitsk
²Institute of Physics of Polish Academy of Sciences, Warsaw, Poland
³University of Wurzburg, Germany
Dependences of plasmon and IR photon frequencies on temperature in Pb_{1-x}Sn_xTe films on GaAs / CdTe substrates
44. CHERNYKH E.A.¹, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan
Near-field photo-induced heating of polymer film

45. MALYSHEVA I.V., KOLMYCHEK I.A.
Lomonosov Moscow State University
Second harmonic phase spectroscopy in hyperbolic metamaterials based on gold nanorods
46. KHANKAEV A.A., ARTAMONOV D.A., TCIBULNIKOVA A.V., SLEZHKIN V.A.¹, SAMUSEV I.G., BRYUKHANOV V.V.
Immanuel Kant Baltic Federal University, Kaliningrad
¹*Kaliningrad State Technical University*
Dielectric permittivity functions of nanostructured titanium surfaces
47. SHIROKOVA A.V., MASLOV A.V., BAKUNOV M.I.
Lobachevsky State University of Nizhny Novgorod
Adiabatic transformation of a surface plasmon on temporally dynamic graphene
48. TRUBAEV V.V., MAKIN V.S.^{1,2}
Russian University of Transport (RUT (MIIT), Moscow
¹*Institute for Nuclear Energetic, Sosnovy Bor, Leningrad region*
²*Scientific and Design Center for Optoelectronic Observation Complexes - Branch of JSC «Kometa Corporation», Saint-Petersburg*
Temperature dependence of pressed wave generation and propagation
49. STYAPSHIN V.M., SAUSHIN A.S., MIKHEEV G.M.
Udmurt Federal Research Center of UB RAS, Izhevsk
Influence of Ag/Pd nanocomposite films structure on the shape of polarization-sensitive photocurrent pulses
50. KOROLEVA A.V., MARTYSHOV M.N.
Lomonosov Moscow State University
Investigation of nanocrystalline metal oxides by IR spectroscopy

Meeting 5

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51. MATROSOVA A.S.^{1,2}, EVSTROPIEV S.K.^{2,3}, ASEEV V.A.², DEMIDOV V.V.¹, KUZMENKO N.K.², ANANYEV V.A.^{1,2}, NIKONOROV N.V.²
¹*S.I. Vavilov State Optical Institute, Saint-Petersburg*
²*ITMO University, Saint-Petersburg*
³*Saint-Petersburg State Institute of Technology*
Active optical fibers based on silica glass and YAG:Nd³⁺ nanocrystals technology
52. ZARETSKAYA G.A., DROZDOVSKIY A.V., CHEPLAGIN N.A.
Saint-Petersburg State Electrotechnical University "LETI"
Transfer function of integrated ring resonator
53. NIKOLAEV N.E., PAVLOV S.V., CHEKHLOVA T.K.
Peoples' Friendship University of Russia (RUDN University), Moscow
Features of dispersion characteristics of multilayer optical waveguides
54. BOGACHKOV I.V., ALEKSANDROVA A.I.
Omsk State Technical University
Research of Brillouin reflectograms at bends in optical fibers
55. MAMRASHEV A.A.¹, MINAKOV F.A.^{1,2}, NIKOLAEV N.A.^{1,3}, KUZNETSOV S.A.^{3,4}, TANYGINA D.S.⁵
¹*Institute of Automation and Electrometry of SB RAS, Novosibirsk*
²*Novosibirsk State University*
³*Institute of Laser Physics of SB RAS, Novosibirsk*
⁴*Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk Branch "TDIAM"*
⁵*Budker Institute of Nuclear Physics of SB RAS, Novosibirsk*
High-performance broadband terahertz polarizers based on 1D grids
56. AKMALOV A.E., AKSENOV E.A., KOZLOVSKII K.I., KOTKOVSKII G.E., MAKSIMOV E.M., MITYAGIN Yu.A.¹, PLEKHANOV A.A., CHISTYAKOV A.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
¹*Lebedev Physical Institute of the RAS, Moscow*
Study of terahertz transmission and reflection spectra of microcrystals of organic compounds
57. RUSINOV A.P., KUCHERENKO M.G.
Orenburg State University
Influence of plasmon nanoparticles on nonlinear optical parameters of organic dye solutions
58. MINAEVA E.D.^{1,2}, DEMINA T.S.^{3,4}, DULYASOVA A.A.¹, MINAEV N.V.¹
¹*Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk*
²*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
³*Sechenov First Moscow State Medical University*
⁴*Enikolopov Institute of Synthetic Polymer Materials of the RAS, Moscow*
Features of the formation of scaffolds with new powder materials by surface selective laser sintering
59. NEKRASOV A.D., UNTURA M.M.
MIREA – Russian Technological University, Moscow
Organic photocells based on multichromic nanocrystals of polymethine dyes
60. VOROPAEV K.O., ZHUMAeva I.O., SELEZHEV B.I.¹, IONOV A.S.
OJSK "Planeta-OKB", Veliky Novgorod
¹*Yaroslav-the-Wise Novgorod State University*
Anti-reflection layers based on thin dielectric films for IR- photodiodes 1310 nm
61. BLANK A.V., BOGDANOV S.D.
Lomonosov Moscow State University
Simulation models of photovoltaic arrays with various symmetry
62. YAKUSHENKOV P.O.^{1,2}
¹*Lebedev Physical Institute of the RAS, Moscow*
²*JCK "Destiny Electronics", Moscow*
Photonic ADC project

PLENARY 2

Thursday, January 30, 2020, 13.00

Room 406

63. NOZDRYUKHIN D.V.^{1,2}, BESEDINA N.A.², EFIMOVA O.A.¹, CHERNYSHEV V.S.¹, GIPPIUS N.A.¹, DYAKOV S.A.¹, GORIN D.A.¹, YASHCHENOK A.M.¹
¹Skolkovo Institute of Science and Technology, Moscow region
²Saint-Petersburg National Research Academic University of the RAS
Enhanced Raman and photoacoustic intensities by microspheres with carbon nanotubes and gold nanoparticles
64. SHUR V.Ya., AKHMATKHANOV A.R., ESIN A.A., CHUVAKOVA M.A., KOLKER D.B.¹, BOYKO A.A.¹, PAVELYEV V.S.²
 Ural State University, Ekaterinburg
¹Novosibirsk State University
²Samara National Research University
Ferroelectric crystals with precise domain patterns for nonlinear optical conversions and controlling of coherent light
65. TOLSTIK A.L., DADENKOV I.G., MIKSIUK Yu.I.¹, SAECHNIKOV K.A.¹
 Belarusian State University, Minsk
¹Belarusian State Pedagogical University, Minsk
Multiplex recording of dynamic holograms in sillenites-family photorefractive crystals
66. SAZONOV S.V.
 National Research Centre "Kurchatov Institute", Moscow
Diffraction limit in the theory of light bullets

POSTERS 3

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Meeting 6

Thursday, January 30, 2020, 16.00

Room 406

67. MAIMISTOV A.I., LYASHKO E.I., ELYUTIN S.O.
 National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Spin and angular moments of nonlinear waves on the surface of a topological insulator
68. KOLMYCHEK I.A., MAYDYKOVSKIY A.I., MURZINA T.V.
 Lomonosov Moscow State University
Optical second harmonic generation in nanostructures with inhomogeneous magnetization distribution
69. BUROVA E.A.¹, BODROV S.B.^{1,2}, SERGEEV Yu.A.², KORYTIN A.I.², STEPANOV A.N.²
¹Lobachevsky State University of Nizhny Novgorod
²Institute of Applied Physics of the RAS, Nizhny Novgorod
Terahertz pulse induced second harmonic generation of femtosecond optical pulses in isotropic media
70. SHESTERIKOV A.V., GUBIN M.Yu., LEKSIN A.Yu., PROKHOROV A.V., VOLKOV V.S.¹
 Vladimir State University named after Alexander and Nikolay Stoletovs
¹Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
Coherent optical effects in hybrid optoplasmonic schemes based on graphene and semiconductor quantum dots
71. PERESKOKOV V.S., DZEDOLIK I.V.
 V.I. Vernadsky Crimean Federal University, Simferopol
Excitation of helicoidal nanoantenna modes by surface plasmon polaritons
72. PETROV N.I., DANILOV V.A., POPOV V.V.¹, USIEVICH B.A.²
 Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow¹Lomonosov Moscow State University
²Prokhorov General Physics Institute of the RAS, Moscow
Enhancement of the Goos-Hänchen effect near surface plasmon resonance in subwavelength gratings
73. NOVIKOV V.B., MURZINA T.V.
 Lomonosov Moscow State University
Hybrid finite-difference frequency-domain method for the modeling of the light diffraction in planar photonic crystals
74. PROKHOROVA U.V., EFREMOVA E.A.¹, KRYLOV I.R.
 Saint-Petersburg State University
¹ITMO University, Saint-Petersburg
Effect of rotation angle on scattering on gold nanoantennas
75. KAZANTSEVA E.V.
 National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Vector π -pulse in optical amplifier with resonant atoms
76. BAYRAMDURDYEV D.Ya., MALIKOV R.F., RYZHOV I.V.¹, MALYSHEV V.A.^{1,2}
 Akmullah State Pedagogical University of Bashkortostan, Ufa
¹Herzen State Pedagogical University of Russia, Saint-Petersburg
²University of Groningen, The Netherlands
Optical dynamics of a mono-layer of three-level quantum emitters of V-type

77. AKIMOV A.A., GUZAIROV S.A., IVAKHNIK V.V.
Samara National Research University
Four-wave mixing on thermal nonlinearity in a scheme with feedback at large reflection coefficients
78. IVAKHNIK V.V., SAVEL'EV M.V.
Samara National Research University
Influence of nanoparticle mass in a transparent liquid on the phase conjugation accuracy by a four-wave radiation converter

Meeting 7

Thursday, January 30, 2020, 16.00

Room 407

79. MINAEVA E.D.^{1,2}, MINAEVA S.A.¹, MINAEV N.V.¹
¹Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
²National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Laser additive technology for the formation of functional tissue-engineering structures for bone tissue repair
80. MINAEV V.P., BOGACHEV V.Yu.^{1,2}, KAPERIZ K.A.¹, MINAEV N.V.³, YUSUPOV V.I.³
IRE-Polus Corporation, Fryazino
¹The First Phlebological Center, Moscow
²Russian National Research Medical University named after N.I. Pirogov, Moscow
³Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Study of heat transfer in water under laser heating
81. ISMAILOV Sh.M., KAMENEV V.G., ARAPOV Yu.D.
N.L. Dukhov All-Russian Research Institute of Automatics, Moscow
Registration of dispersion media parameters using an analysis of scattered and passed laser radiation
82. LEBEDEV V.F.^{1,2}, BULYGA D.V.¹, KOLIADIN A.V.³
¹ITMO University, Saint-Petersburg
²Saint-Petersburg State University of Aerospace Instrumentation
³LLC «New Diamond Technology», Sestroretsk
Analysis of impurities in multisectoral plates of synthetic HPHT diamonds by laser-induced breakdown spectroscopy
83. ZARUBIN V.P.¹, ZHIGARKOV V.S., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
¹National University of Science and Technology «MISIS», Moscow
Complex study of survival of biological organisms in laser printing of gel microdroplets
84. KHOMICH Yu.V., MALINSKIY T.V., MIKOLUTSKIY S.I., ROGALIN V.E., YAMSHCHIKOV V.A., KAPLUNOV I.A.¹, IVANOVA A.I.¹
Institute for Electrophysics and Electric Power of the RAS, Saint-Petersburg
¹Tver State University
High energy UV laser impact on polished oxygen-free copper
85. AKMALOV A.E., CHISTYAKOV A.A., KOSTAREV V.A., KOTKOVSKII G.E.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Detection of explosive vapors by field asymmetric ion mobility spectrometry method with laser ionization
86. MASHKO A.M.^{1,2}, MEYSTERSON A.A.^{1,2}, AFANASIEV A.E.¹, BALYKIN V.I.¹
¹Institute for Spectroscopy of the RAS, Troitsk
²National Research University Higher School of Economics, Moscow
Pulse dipole trap of femtosecond duration
87. IONIN A.A., KINYAEVSKIY I.O., KLIMACHEV Yu.M., KOZLOV A.Yu., KOTKOV A.A., LAMPIN J.-F.¹, MITYAGIN Yu.A., SAVINOV S.A., SAGITOVA A.M., SINITSYN D.V., CHEBOTAREV I.A.
Lebedev Physical Institute of the RAS, Moscow
¹Institute of Electronics, Microelectronics and Nanotechnology, Lille, France
Time behavior of NH₃ laser terahertz emission under optical pumping by "long" pulse CO₂ laser
88. KOPYEVA M.S., FILATOVA S.A.¹, KAMYNNIN V.A.¹, CHEKHLOVA T.K., TSVETKOV V.B.^{1,2}
Peoples' Friendship University of Russia (RUDN University), Moscow
¹Prokhorov General Physics Institute of the RAS, Moscow
²National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Pulse holmium-doped fiber laser with intracavity Mach-Zehnder interferometer
89. SHULGA A.V., KHOMCHENKO A.V., SHILOVA I.V.
Belarusian-Russian University, Mogilev, Belarus
Excitation of whispering gallery modes by coupling prism placed in laser diode external cavity
90. MILIKOV E.A.¹, SEMENOV V.G., BROSLAVETS Yu.Yu., FOMICHEV A.A.¹
Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
¹Joint-Stock Company LASEX, Dolgoprudny
Four-frequency laser gyroscope's signals detecting optical schemes

Meeting 8

Friday, January 31, 2020, 10.00

Room 406

91. USTINOV A.B., KONDRASHOV A.V., NIKITIN A.A., LEBEDEV V.V.¹, PETROV A.N.¹, SHAMRAI A.V.¹, KALINIKOS B.A.
Saint-Petersburg State Electrotechnical University "LETI"
¹Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
Low phase noise tunable optoelectronic microwave generator based on spin-wave filter
92. MESHCHEROVA D.N.
Mytishchi Research Institute of Radio Measuring Instruments, Moscow region
On the fundamental advantages of microwave photonics technologies

93. FROLOVTSSEV D.N.¹, MAGNITSKIY S.A.¹, BORMASHOV V.S., DEMIN A.V.
All-Russian Research Institute for Optical and Physical Measurements, Moscow
¹*Lomonosov Moscow State University*
Measurement of quantum polarization states of biphoton sources
94. BALAKIREVA I.V., BLINOV I.Yu., KHATYREV N.P.
All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleev, Moscow region
Cascading the Brillouin effect in an optical fiber laser
95. KOROLENKO P.V.^{1,2}, ZOTOV A.M.¹, TSITSILASHVILI G.I.¹
¹*Lomonosov Moscow State University*
²*Lebedev Physical Institute of the RAS, Moscow*
Helical beam information laser systems
96. BOLBASOVA L.A.^{1,2}, GRITSUTA A.N.^{1,2}, LUKIN V.P.¹
¹*National Research Tomsk State University*
²*V.E. Zuev Institute of Atmospheric Optics of SB RAS, Tomsk*
Shack-Hartmann wavefront sensor for using in wide range of change of atmospheric turbulence characteristics
97. US N.A., AVERSHIN A.A.
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A. Gagarin, Voronezh
Increase of good quality of optical contour of the ring monoblock gyroscope
98. YUSHKOV K.B., ZARUBIN V.P., MANTSEVICH S.N.¹, MOLCHANOV V.Ya.
National University of Science and Technology "MISIS", Moscow
¹*Lomonosov Moscow State University*
Development of high-definition acousto-optic dispersive delay lines
99. KOTOV V.M., AVERIN S.V.
Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
Acousto-optic filter of the spatial frequencies with low consumption of acoustic power
100. BORITKO S.V., BORITKO Ya.S.¹
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
¹*Institute of Biomedical Problems of the RAS, Moscow*
Usage of Raman scattering for gemstones diagnostics in complex jewelry

Meeting 9

Friday, January 31, 2020, 13.00

Room 406

101. BYKOVSKY A.Yu.
Lebedev Physical Institute of the RAS, Moscow
The structure of quantum network protocols
102. PAVLOV A.V.
ITMO University, Saint-Petersburg
Quantum-like cognitive phenomena modeling by holographic technique: prisoner's dilemma
103. SHIPKO V.V.
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A. Gagarin, Voronezh
Model of submission of hyper spectral data in the form of multidimensional locally uniform and isotropic casual fields
104. KOROLENKO P.V.^{1,2}, RUZHITSKAYA D.D.¹, RYZHIKOV S.B.¹, RYZHIKOVA Yu.V.¹
¹*Lomonosov Moscow State University*
²*Lebedev Physical Institute of the RAS, Moscow*
Features spectral analysis of fractal-like systems
105. BLANK A.V., NASONOV A.A.
Lomonosov Moscow State University
Differential analysis of non-paraxial vector wave beams
106. BALBEKIN N.S.¹, KULYA M.S.¹, SOKOLENKO B.V.², GORODETSKY A.A.^{1,3}, PETROV N.V.¹
¹*ITMO University, Saint-Petersburg*
²*V.I. Vernadsky Crimean Federal University, Simferopol*
³*University of Birmingham, United Kingdom*
Diffraction evolution of ultrabroadband equal-topologically charged THz beams for wireless data transmission
107. BALAN N.N., IVANOV V.V. E.A., KUZOVKOV A.V., KHARCHENKO E.L.
Molecular Electronics Research Institute, Zelenograd
Calculation of illumination source shapes for lithography processes at the 65 nm node
108. SHISHOVA M.V., ODINOKOV S.B., ZHERDEV A.Yu., KOVALEV M.S., LUSHNIKOV D.S.
Bauman Moscow State Technical University
Correction of the phase imbalance in the interference linear displacement sensor
109. KOMOTSKII V.A., SUETIN N.V., MESHALKIN A.V.
Peoples' Friendship University of Russia (RUDN University), Moscow
Model of seismometer with a sensor based on a deep reflective diffraction grating
110. DENISOV D.G., PROSOVSKIY Yu.O.
Bauman Moscow State Technical University
Assessment of quality of application technology coatings for substrates with different level of roughness based on analysis for the indicatrix of scattered radiation

111. PUTILIN A.N.¹, MOROZOV A.V.^{1,2}, DRUZHIN V.V.³, KOPENKIN S.S.¹, BORODIN Yu.P.¹, MALININA P.I.², DUBYNIN S.E.^{1,2}, PEREVOZNIKOVA A.S.^{1,3}, LVOVA K.I.³
¹Lebedev Physical Institute of the RAS, Moscow
²Samsung Research Center, Moscow
³Bauman Moscow State Technical University
Hologram optics for head-mounted and head-up displays
112. KAYTUKOV Ch.B., KISELEV V.A., YANOVSKY A.V.
 Scientific and Technical Centre "Atlas". Moscow
The method of optoelectronic analysis of spatial Fourier spectrum for authentication of security holograms
113. PAVLOV P.V., WOLF I.E., KUSKOV I.E., STEPANOV A.R.
 Air Force Academy named after prof. N.E. Zhukovsky and Yu.A Gagarin, Voronezh
Non-destructive glass control of aircraft cabins by analysis of parameters speckle-photo
114. CHERYOMKHIN P.A., KOZLOV A.V.
 National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Digital cameras noise characteristics estimation by automatic segmentation of uniform targets
115. TUROV A.T.¹, KULYA M.S.¹, GORODETSKY A.A.^{1,2}, PETROV N.V.¹
¹ITMO University, Saint-Petersburg
²University of Birmingham, United Kingdom
Evaluation of reconstruction quality of terahertz pulse time-domain holograms
116. KRASNOV V.V., RYABCEV I.P.
 National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
The lensless scheme of optical encryption of images with LED illumination
117. PROKOPOVA D.V.^{1,2}, EFIMOVA K.V.^{1,2}, KISHKIN S.A.¹, KOTOVA S.P.^{1,2}, SAMAGIN S.A.¹
¹Samara Branch of the Lebedev Physical Institute of the RAS
²Samara National Research University
Formation of spiral beams of light by holographic method
118. ISMANOV Yu.H., DZHAMANKYZOV N.K., ZHUMALIEV K.M., ALYMKULOV S.A.
 Institute of Physics of NAS KR, Bishkek, Kyrgyz republic
Recording holograms of phase media, taking into account the presence of a second reference wave
119. BELASHOV A.V.^{1,2}, ZHIKHOREVA A.A.¹, GORBENKO D.A.^{1,2}, AVDONKINA N.A.³, BALDUEVA I.A.³, DANILOVA A.B.³, GELFOND M.L.³, NEKHAIEVA T.L.³, SEMENOVA I.V.¹, VASUTINSKII O.S.¹
¹Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
²ITMO University, Saint-Petersburg
³N.N. Petrov Institute of Oncology, Saint-Petersburg
Application of digital holographic microscopy for estimation of various cell cultures resistivity to photodynamic treatment
120. IVANOV P.A.
 Yaroslavl State Technical University
Quadratic correlation filters in problems of images recognition

Posters 1

Wednesday, January 29, 2020, 12.00

121. SAVICH D.E.¹, POPOVA A.V.¹, KRIVOSHEEV I.A.^{1,2}, KRISHTOP V.V.¹
¹Far Eastern State Transport University, Khabarovsk
²Khabarovsk Federal Research Center of FEB RAS
Polarization indicatrix as a method of investigation of radiation polarization state
122. GAPPAROVA M.N., SCHUKIN A.V., BODRENIN V.E., ROMANENKO D.K., PERIN A.S.
 Tomsk State University of Control Systems and Radioelectronics
Influence of temperature change on the width of a laser beam in the formation of pyroelectric spatial solitons in a lithium niobate crystal
123. KOSTRITSKII S.M., YATSENKO A.V.¹, KORKISHKO Yu.N., FEDOROV V.A.
 RPC Optolink Ltd, Zelenograd
¹V.I. Vernadsky Crimean Federal University, Simferopol
Influence of inter-electrode capacitance on pyroelectric response of integrated-optical modulators utilizing X-cut LiNbO₃ chips
124. ASTAFUROV R.A., GALUTSKIY V.V., IVASHKO S.S., SHAPOVALOV A.V.
 Kuban State University, Krasnodar
Absorption of lithium niobate and potassium niobate in the THz range
125. PERIN A.S., OKUNEV D.V.
 Tomsk State University of Control Systems and Radioelectronics
Interaction of bright spatial solitons in the photorefractive crystal of lithium niobate with taking into account the pyroelectric effect
126. 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 FRC «Kola Science Centre of the RAS», Apatity, Murmansk region
Photoelectric fields of nominally pure LiNbO₃ crystals of different genesis
127. ROMANENKO D.K., SOKOLNIKOV A.V., GAPPAROVA M.N., KARANKEVICH O.A., PERIN A.S.
 Tomsk State University of Control Systems and Radioelectronics
Temperature dependence of the compensation of the diffraction divergence of laser beams in a crystal of lithium niobate
128. ANIKIEV A.A., UMAROV M.F.¹, ANIKIEVA E.N.²
 Bauman Moscow State Technical University
¹Vologda State University
²Michurinsk State Agrarian University, Tambov region
Exhibition of acoustic density of states in the quasielastic light scattering spectra of lithium niobate crystals

129. SIDOROV N.V., TITOV R.A., TEPLYAKOVA N.A., PALATNIKOV M.N.
*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC «Kola Science Centre of the RAS»,
Apatity, Murmansk region*
Boron influence on structural homogeneity and optical properties of lithium niobate single crystals
130. PIKOUL O.Yu., SIDOROV N.V.¹, TEPLYAKOVA N.A.¹, PALATNIKOV M.N.¹
Far Eastern State Transport University, Khabarovsk
¹*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC «Kola Science Centre of the RAS»,
Apatity, Murmansk region*
Conoscopic control of optical homogeneity of lithium niobate crystals doped by boron
131. STROGANOVA E.V., GALUTSKIY V.V., NALBANTOV N.N., PONETAeva I.G.
Kuban State University, Krasnodar
Investigation of the composition of scattering defects in LiNbO₃:Er(Ce,Zn) crystals
132. STARODUB O.R., VOSKRESENSKIY V.M., SIDOROV N.V., PALATNIKOV M.N.
*I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC «Kola Science Centre of the RAS»,
Apatity, Murmansk region*
Computer simulation of the cluster structure of an oxygen-octahedral lithium niobate crystal
133. KINYAEVSKIY I.O., DANILOV P.A., SMIRNOV N.A., KUDRYASHOV S.I., SELEZNEV L.V., IONIN A.A., DUNAEVA E.E.¹
Lebedev Physical Institute of the RAS, Moscow
¹*Prokhorov General Physics Institute of the RAS, Moscow*
Filamentation of 515-nm 300-fs laser pulses in BaWO₄ crystal
134. GUTSENKO D.D.^{1,2}, BOLDYREV K.N.^{1,2}
¹*Institute for Spectroscopy of the RAS, Troitsk*
²*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
Study of color centers in silicon carbide single crystals by high resolution luminescent spectroscopy
135. TRETIAKOV S.A., KAPLUNOV I.A., IVANOVA A.I., MOLCHANOV S.V.
Tver State University
Measuring of electrical resistivity of germany crystals by method of thermovision defectoscopy
136. ERMAKOV A.S., LYAPIN A.A., SHAVELEV A.A.¹, GUSHCHIN S.V., RYABOCHKINA P.A., SEMASHKO V.V.¹
National Research Mordovian State University named after N.P. Ogarev, Saransk
¹*Kazan Federal University*
Upconversion luminescence of fluoride crystals with scheelite structure doped Er³⁺ ions
137. MAKAREVICH A.V., SHEPELEVICH V.V., AMANOVA M.A., NAUNYKA V.N., SHANDAROV S.M.¹
Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
¹*Tomsk State University of Control Systems and Radioelectronics*
Theoretical optimization of output characteristics of mixed holograms in a photorefractive crystal Bi₁₂TiO₂₀ of an arbitrary slice
138. MOLCHANOVA A.D.¹, BOLDYREV K.N.^{1,2}
¹*Institute for Spectroscopy of the RAS, Troitsk*
²*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
Investigation of the absorption spectra of Co²⁺ ions in cobalt orthoborate Co₃(BO₃)₂
139. KISTENEVA M.G., SHANDAROV S.M., TOLSTIK A.L.¹, AGISHEV I.N.¹, DADENKOV I.G.¹, KARGIN Yu.F.²
¹*Tomsk State University of Control Systems and Radioelectronics*
²*Belarusian State University, Minsk*
²*Baikov Institute of Metallurgy and Material Sciences of the RAS, Moscow*
Dynamics of light absorption in a Bi₁₂SiO₂₀ crystal induced by coherent pulse radiation with the different wavelengths
140. TRETIAKOV S.A., KAPLUNOV I.A., VAYSBURG N.Ya.
Tver State University
Optical anomalies in elements from paratellurite at exploitation of devices on their basis
141. KLIMIN S.A., CHOU M.C.¹, POPOVA M.N.
Institute for Spectroscopy of the RAS, Troitsk
¹*National Sun Yat-Sen University, Kaohsiung, Taiwan*
Infrared multiplets and fine structure of Pr³⁺ lines in doped YPO₄
142. NEKRASOV A.D., KRIVOBOK V.S.¹, UNTURA M.M.
MIREA – Russian Technological University, Moscow
¹*Lebedev Physical Institute of the RAS, Moscow*
Luminescent nanocrystals of metal complexes of anionic cyanine dyes
143. STROKOVA Yu.A., KARPOV V.B., SALETSKY A.M.
Lomonosov Moscow State University
Modified spectral properties of organic dyes in one-dimensional polymeric photonic crystals
144. KLIMIN S.A., KUZNETSOVA E.S.¹, BERDONOSOV P.S.¹
Institute for Spectroscopy of the RAS, Troitsk
¹*Lomonosov Moscow State University*
Magnetic ordering of Cu₃Dy(SeO₃)₂O₂Cl: spectroscopy of Kramers doublets
145. GRISHCHENKO I.V.¹, STIRMANOV Yu.S.², KONYASHKIN A.V.^{1,2}, RYABUSHKIN O.A.^{1,2}
¹*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
²*Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS*
Investigation of heating of lithium triborate crystal interacting with high intensity laser radiation at 1070 nm wavelength
146. BUDAGOVSKY I.A.¹, ZOLOT'KO A.S.¹, KUZNETSOV A.A.¹, SMAYEV M.P.^{1,2}, SHVETSOV S.A.^{1,3}, BOBROVSKY A.Yu.³, BOIKO N.I.³, SHIBAEV V.P.³
¹*Lebedev Physical Institute of the RAS, Moscow*
²*Mendeleev University of Chemical Technology of Russia, Moscow*
³*Lomonosov Moscow State University*
Reversible recording of the light-induced director deformation in doped side-chain nematic liquid-crystalline polymer
147. KNIAZKOV A.V.
Peter the Great Saint-Petersburg Polytechnic University
Birefringence estimation of stressed materials by reflection of two orthogonally polarized light beams

148. ANIKIEV A.A., UMAROV M.F.¹, ANIKIEVA E.N.²
Bauman Moscow State Technical University
¹*Vologda State University*
²*Michurinsk State Agrarian University, Tambov region*
Light scattering by polaritons in ferroelectrics with stoichiometric defects
149. GORELIK V.S.^{1,2}, PYATYSHEV A.Yu.¹
¹*Lebedev Physical Institute of the RAS, Moscow*
²*Bauman Moscow State Technical University*
Raman opalescence in the region of phase transition in ferroelectric crystals
150. MAMONOV E.A., RASPUTNYI A.V., KOPYLOV D.A., MURZINA T.V.
Lomonosov Moscow State University
Study of second harmonic generation in 1D microresonators from high-gain parametric down conversion
151. KOVALENKO N.V.¹, ALOIAN G.A.¹, MUKHANKOV D.M.², KARPOVA T.K.¹, SMIRNOV A.V.¹, RYABUSHKIN O.A.^{1,2}
¹*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
²*Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS*
Measurement of the optical properties of scattering media based on the goniometric method using integrating spheres and Monte Carlo mathematical modeling
152. CHERNOV M.V.¹, LYAPIN A.A., KUZMIN A.M.¹
National Research Mordovian State University named after N.P. Ogarev, Saransk
¹*Photon Technology Systems, Saransk*
Luminescent screens for observing large-diameter infrared laser beams
153. SHOSTKA V.I., SHOSTKA N.V., VERSHITSKY V.I.
V.I. Vernadsky Crimean Federal University, Simferopol
Comparative analysis of clatrate structures in near-surface layers of aqueous solutions
154. ISMAGILOV A.O., GENDRINA A.A., PONOMAREVA E.A., PUTILIN S.E., TCYPKIN A.N., KOZLOV S.A.
ITMO University, Saint-Petersburg
Terahertz waves generation during double-pulse single color laser excitation of ethanol jet
155. MIRONOV P.P., LAPIN V.A., SHCHUKAREV I.A.
Ulyanovsk State University
Generation of ultrashort laser pulses through a resonant interaction of quasi-continuous wave packet with running refractive index wave
156. ISMAGILOV A.O., PONOMAREVA E.A., PUTILIN S.E., TCYPKIN A.N.
ITMO University, Saint-Petersburg
Impact of temperature of liquid on the efficiency of terahertz wave generation by laser filamentation in flat water jet
157. ALIEVA S.S., ALEXEYEV C.N.
V.I. Vernadsky Crimean Federal University, Simferopol
Propagation of fundamental modes in the input-output loop resonator
158. PARPULOVA K.V., MELNICK M.V., TCYPKIN A.N.
ITMO University, Saint-Petersburg
Numerical simulation of femtosecond optical combs transmission in a medium with normal dispersion
159. BARSHAK E.V., ALEXEYEV C.N., VIKULIN D.V., LAPIN B.P., YAVORSKY M.A.
V.I. Vernadsky Crimean Federal University, Simferopol
CNOT-gate in multihelical optical fibres
160. SHCHUKAREV I.A., KOROBOK D.A., SALGANSKII M.Yu.¹, ZOLOTOVSKII I.O., MIRONOV P.P.
Ulyanovsk State University
¹*Devyatykh Institute of Chemistry of High-Purity Substances of the RAS, Nizhny Novgorod*
Generation of parabolic laser pulses in short fiber amplifiers
161. BOGDANOVA E.V.¹, GRACHEV N.A.¹, SHCHERBAKOVA V.A.^{1,2}, SUSHKO D.N.¹, PETUKHOVA A.Yu.^{1,3}
¹*Perm Scientific-Industrial Instrument Making Company*
²*Perm National Research Polytechnic University*
³*Perm State University*
Research the all-fiber sensor sensitivity in wide temperature range
162. ZOLOTOVSKII I.O., LAPIN V.A., SEMENSOV D.I.
Ulyanovsk State University
Modulation instability of wave packets propagating in a fiber with a dispersion cascade depending on the length
163. OPARIN E.N., ZHUKOVA M.O., TCYPKIN A.N.
ITMO University, Saint-Petersburg
Experimental study of chirped terahertz pulses duration dependences on the parameters of a metal waveguide
164. VEKSHIN M.M., NIKITIN V.A., YAKOVENKO N.A.
Kuban State University, Krasnodar
Design of single-mode optical MMI couplers, based on glass gradient waveguides
165. GUSHCHIN S.V., LYAPIN A.A., CHERNOV M.V.¹, ERMAKOV A.S., KUZNETSOV S.V.², RYABOCHKINA P.A., PROYDAKOVA V.Yu.², FEDOROV P.P.²
National Research Mordovian State University named after N.P. Ogarev, Saransk
¹*Photon Technology Systems, Saransk*
²*Prokhorov General Physics Institute of the RAS, Moscow*
Fluoride phosphors SrF₂:RE (RE = Er, Tm, Ho, Yb) for upconversion of infrared radiation
166. SOSNOVA N.S., PARFENOV V.A.
Saint-Petersburg State Electrotechnical University "LETI"
Application of X-ray-fluorescent spectroscopy for research of works of temper painting
167. VOLCOV V.G., GINDIN P.D., KARPOV V.V., KUZNETSOV S.A.
JSC Moskovskij Zavod «Sapphir»
Television system for underwater viewing in turbid medium
168. GRIGORIEVA A.N., PARFENOV V.A., SCHEGLOVA N.L.
Saint-Petersburg State Electrotechnical University "LETI"
Using computer methods of processing digital optical images for attribution of paintings

169. VOLCOV V.G., GINDIN P.D.
JSC Moskovskij Zavod «Saphir»
Stereoscopic dual-band television system imaging
170. EFREMTSEV V.G., EFREMTSEV N.G., TETERIN E.P., TETERIN P.E.¹, GANSOVSKIY V.V., SHNUROV A.S.², RODIN D.A.²
Kovrov State Technological Academy named after V.A. Degtyarev, Vladimir region
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*Bauman Moscow State Technical University*
Deep-learning application for quality evaluation of the photoshoots

Posters 2

Wednesday, January 29, 2020, 12.00

171. YURINA U.V., SIDOROV A.I.^{1,2}, PODSVIROV O.A.
Peter the Great Saint-Petersburg Polytechnic University
¹*ITMO University, Saint-Petersburg*
²*Saint-Petersburg State Electrotechnical University "LETI"*
Electron beam technologies for the fabrication of optical micro- and nanoelements on the surface of glasses and crystals
172. SANINA V.A.¹, KUDAIEV O.S.¹, SIDOROV A.I.^{1,2}
¹*Saint-Petersburg State Electrotechnical University "LETI"*
²*ITMO University, Saint-Petersburg*
Perfect absorbers on base of metal and semiconductor nanoparticles in glasses for solar energy application
173. KIRPICHENKO D.A., SIDOROV A.I.^{1,2}, PODSVIROV O.A.
Peter the Great Saint-Petersburg Polytechnic University
¹*ITMO University, Saint-Petersburg*
²*Saint-Petersburg State Electrotechnical University "LETI"*
Influence of electron irradiation on the optical and structural properties of quartz glass
174. ORESHKINA K.V., DUBROVIN V.D., NIKONOROV N.V., SGBINEV Ye.M.
ITMO University, Saint-Petersburg
Borogermanate glasses doped with perovskite nanocrystals
175. BABKINA A.N., EGOROVA Ya.B., ZYRYANOVA K.S.
ITMO University, Saint-Petersburg
Investigation of spectral properties of mixed CuCl – CuBr nanocrystals in borate glass
176. KUZMENKO N.K., ASEEV V.A., FEDOROV Yu.K.
ITMO University, Saint-Petersburg
Study of the spectral-luminescent properties of erbium ions in alkali-germanate glasses for optical temperature sensors
177. BABKINA A.N., ZYRYANOVA K.S., KULJPINA E.V., NURYEV R.K.
ITMO University, Saint-Petersburg
Investigation of thermal treatment conditions effect on the luminescent properties of chromium-doped borate glass-ceramics
178. SHESTOPALOVA Yu.A., DUBROVIN V.D.
ITMO University, Saint-Petersburg
Research of spectral-luminescent properties of photo-thermo-refractive glasses doped with lithium
179. OVECHENKO D.S., BOYCHENKO A.P., SHAYTANOV D.V., KLEVTSOV O.V.
Kuban State University, Krasnodar
Kinetics of glow of barrier discharge during the transformation of anodized Al₂O₃
180. SHMAGINA E.G., KONSHINA E.A., SCHERBININ D.P., KHAVLYUK P.D.
ITMO University, Saint-Petersburg
Enhancement of photoluminescence of carbon dots in hybrid structures based on granulated silver films
181. DAVYDOV V.N., ZADOROZHNY O.F.
Tomsk State University of Control Systems and Radioelectronics
Radiative recombination rate taking into account the difference in charge carriers concentration
182. ALIKHAIDAROVA E.Zh.¹, KUANYSHBEKOV M.E.¹, AFANASYEV D.A.^{1,2}
¹*Karaganda State University of the name of academician E.A. Buketov, Kazakhstan*
²*Institute of Applied Mathematics, Karaganda, Kazakhstan*
Effect of Ag-SiO₂ nanostructures on fluorescence kinetics of films based on poly [3-hexylthiophene] semiconductor polymer
183. BUKHAROV D.N., KUCHERIK A.O., ARAKELIAN S.M.
Vladimir State University named after Alexander and Nikolay Stoletovs
Modeling of the optical properties of fractal island metal film
184. KOLCHIN A.V., SHULEIKO D.V., PRESNOV D.E., KOZYUKHIN S.A.^{1,2}, LAZARENKO P.I.³
Lomonosov Moscow State University
Formation of periodic surface structures and phase changing in amorphous Ge₂Sb₂Te₅ thin films annealed by femtosecond laser pulses
185. DEVITSKY O.V.¹, KASYANOV I.V.^{1,2}, NIKULIN D.A.¹
¹*Federal Research Center Southern Scientific Center of the RAS, Stavropol*
²*North Caucasian Federal University, Stavropol*
Influence of thermal annealing on the optical properties of thin films AlN on sapphire
186. DEVITSKY O.V., NIKULIN D.A.¹, SYSOEV I.A.
Federal Research Center Southern Scientific Center of the RAS, Stavropol
¹*North Caucasian Federal University, Stavropol*
Morphology and optical properties of AlN thin films on sapphire obtained by the ion-beam deposition method
187. VARLAMOV P.V.¹, SERGEEV M.M.¹, ANDREEVA Ya.M.¹, ITINA T.E.^{1,2}
¹*ITMO University, Saint-Petersburg*
²*University Lyon, Saint-Etienne, France*
Modeling of the optical characteristics of composite TiO₂ films with a heterogeneous size of silver nanoparticles
188. DZHANABEKOVA R.Kh., MENSHOVA E.P., IBRAYEV N.Kh.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Graphene oxide - silver nanoparticles composite for giant enhancement of Raman scattering

189. KUZNETSOV L.G., SVYAKHOVSKIY S.E.
Lomonosov Moscow State University
Methods of carbon-based nanomaterials creation by laser reduction of graphene oxide
190. PEREVOSHCHIKOV D.A.¹, KALUGIN A.I., ANTONOV E.A.
Udmurt Federal Research Center of UB RAS, Izhevsk
¹*Izhevskiy Radiozavod Ltd*
Structure of lower conduction band of SnTe
191. IBRAYEV N.Kh.¹, AFANASYEV D.A.^{1,2}
¹*Karaganda State University of the name of academician E.A. Buketov, Kazakhstan*
²*Institute of Applied Mathematics, Karaganda, Kazakhstan*
Investigation of interfacial charge carriers separation process at perovskite – oxide semiconductor
192. DAVYDOV V.N., ZADOROZHNY O.F.
Tomsk State University of Control Systems and Radioelectronics
A number restriction of dimensional quantization levels in elements of nanoelectronics
193. EPIFANOV E.O., MINAEV N.V., RYBALTOVSKY A.O.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Synthesis of bimetallic Au/Ag nanoparticles by method of laser ablation in supercritical carbon dioxide
194. GERASIMOV V.S.^{1,2}, BIKBAEV R.G.^{2,3}, ERSHOV A.E.^{1,2}
¹*Institute of Computational Modeling of SB RAS, Krasnoyarsk*
²*Siberian Federal University, Krasnoyarsk*
³*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*
Hybridization of Rayleigh anomalies with local modes of different orders in lattices of aluminum nanoparticles
195. ALIEV S.A., RAVIN A.R., PACHLAVONOVA K.D., CHEKHLOVA T.K., VOLKOV G.V.¹
Peoples' Friendship University of Russia (RUDN University), Moscow
¹*Financial University under the Government of the Russian Federation, Moscow*
Software development for analysis of the results of the study of a three-layer thin-film structure
196. VOITSEKHOVSKII A.V.¹, NESMELOV S.N., DZYADUKH S.M., DVORETSKY S.A.^{1,2}, MIKHAILOV N.N.², SIDOROV G.Yu.²
¹*National Research Tomsk State University*
²*Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk*
Signal and dark properties of infrared barrier detectors based on mercury cadmium telluride
197. EFIMOVA U.A., KALUGIN A.I., ANTONOV E.A.
Udmurt Federal Research Center of UB RAS, Izhevsk
Research of the interaction of a laser beam with paint PF-115 applied on the metal surface
198. BOYCHENKO A.P., SHAYTANOV D.V., KLEVTSOV O.V., YAKOVENKO N.A.
Kuban State University, Krasnodar
Formation nanoporous structure of metal at its processing in barrier discharge
199. MAKIN V.S.^{1,2}, TRUBAEV V.V.³, MAKIN R.S.⁴
¹*Institute for Nuclear Energetic, Sosnovy Bor, Leningrad region*
²*Scientific and Design Center for Optoelectronic Observation Complexes - Branch of JSC "Kometa Corporation", Saint-Petersburg*
³*Russian University of Transport (RUT MIIT), Moscow*
⁴*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
Mechanism of multilayer dielectric coatings degradation under polarized ultrashort laser irradiation
200. MYSLITSKAYA N.A., TCIBULNIKOVA A.V.¹, AGAFONOVA P.L., ZUBAVICHUS R.V., LYATUN I.I.¹
Kaliningrad State Technical University
¹*Immanuel Kant Baltic Federal University, Kaliningrad*
Effect of titanium foil anodation mode on the properties of modified surfaces of titanium
201. VOITSEKHOVSKII A.V., NESMELOV S.N., DZYADUKH S.M., KOPYLOVA T.N., DEGTYARENKO K.M.
National Research Tomsk State University
Impedance of OLED structures with thermally activated delayed fluorescence
202. AVERIN S.V., KUZNETZOV P.I., ZHITOV V.A., ZAKHAROV L.Yu., KOTOV V.M.
Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
Narrow-band visible detector on the base of ZnCdSe/ZnSSe/GaAs heterostructure
203. GORYAEV M.A.¹, CASTRO R.A.¹, KONONOV A.A.¹, ANISIMOVA N.I.¹, KOLOBOV A.V.^{1,2}
¹*Herzen State Pedagogical University of Russia, Saint-Petersburg*
²*National Institute of Advanced Industrial Science & Technology, Tsukuba, Japan*
Photoelectrical properties of Ge₂Sb₂Te₃/Si structures
204. TEMIRBAYEVA D.A., SELIVERSTOVA E.V., IBRAYEV N.Kh.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Plasmon-accelerated Ferster energy transfer in solid films
205. GAZIZOV A.R.^{1,2}, SALAKHOV M.Kh.^{1,2}, KHARINCEV S.S.^{1,2}
¹*Kazan Federal University*
²*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*
Stimulated tip-enhanced Raman scattering of light on single molecule coupled to the plasmonic nanocavity
206. BIKBAEV R.G.^{1,2}, VETROV S.Ya.^{2,1}, TIMOFEEV I.V.^{1,2}
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*
²*Siberian Federal University, Krasnoyarsk*
Investigation of the hybridization effects of Tamm plasmon-polaritons and modes of two-dimensional nanostructured media
207. BIKBAEV R.G.^{1,2}, VETROV S.Ya.^{2,1}, TIMOFEEV I.V.^{1,2}
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*
²*Siberian Federal University, Krasnoyarsk*
Hybrid Tamm and surface plasmon polaritons in resonant photonic crystal structure
208. BIKBAEV R.G.^{1,2}, VETROV S.Ya.^{2,1}, TIMOFEEV I.V.^{1,2}, SHABANOV V.F.^{1,2}
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk*
²*Siberian Federal University, Krasnoyarsk*
Tamm plasmon polaritons enhanced absorption in organic solar cells

209. KON I.I., ZYUBIN A.Yu., SAMUSEV I.G.
Immanuel Kant Baltic Federal University, Kaliningrad
Mathematical modeling of plasmon electromagnetic disturbances near the surface of gold and silver nanoparticles by FDTD method
210. GORBATOVA A.V., KHUSYAINOV D.I., BURYAKOV A.M., PONOMAREV D.S.¹, MISHINA E.D.
MIREA – Russian Technological University, Moscow
¹*Institute of Ultra-High-Frequency Semiconductor Electronics of the RAS, Moscow*
Photoconductive antennas based on the $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}/\text{In}_{0.52}\text{Al}_{0.48}\text{As}$ superlattice for terahertz spectroscopy systems
211. CHMEREVA T.M., KUCHERENKO M.G.
Orenburg State University
The Faraday effect in media with magnetoplasmonic inclusions
212. CASTRO R.A., POPOVA I.O., SMIRNOVA L.M., SHADRIN E.B.¹
Herzen State Pedagogical University of Russia, Saint-Petersburg
¹*Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg*
Magneto-optical and relaxation phenomena in proustite monocrystals
213. PEN'KOV S.A., ALIMBEKOV I.R., NEYASOV P.P., KUCHERENKO M.G.
Orenburg State University
Exciton and molecular spectra of anthracene fluorescence in porous adsorbents, colloidal and homogeneous solutions
214. GRISHUNIN K.A., OVCHARENKO S.V., BILYK V.R.
MIREA – Russian Technological University, Moscow
Terahertz-induced second harmonic generation in strontium titanate crystal
215. OVCHARENKO S.V., GRISHUNIN K.A., BILYK V.R.
MIREA – Russian Technological University, Moscow
Nonlinear-optic dynamics induced with terahertz pulse in incipient ferroelectric SrTiO_3
216. SIDOROV A.I.^{1,2}, VAKULA N.V.¹, SIVAK A.I.¹
¹*ITMO University, Saint-Petersburg*
²*Saint-Petersburg State Electrotechnical University "LETI"*
Linear polarizability of metal nanoparticles in telecommunication wavelength spectral region
217. VASINA M.V., KHUSYAINOV D.I., GORBATOVA A.V., BURYAKOV A.M.
MIREA – Russian Technological University, Moscow
Role of the polarization rotation angle of optical excitation on THz generation in layered WSe_2
218. KOCHUROVA D.N., ALEKSEEV N.I., KALUGIN A.I.
Udmurt Federal Research Center of UB RAS, Izhevsk
Reflectance distribution function of complex objects
219. BARYSHNIKOVA S.Yu., KARPIKOV B.N., KALUGIN A.I.¹, ZARIPOV M.R.¹
Kalashnikov Izhevsk State Technical University
¹*Udmurt Federal Research Center of UB RAS, Izhevsk*
Measuring the effective area of reflection of complex objects
220. PLESHANOV I.M.¹, LISENKOVA A.E.², TSEPICH V.P.², SIDOROV A.I.^{1,2}
¹*ITMO University, Saint-Petersburg*
²*Saint-Petersburg State Electrotechnical University "LETI"*
Femsimulation of the optical system for application in the position-sensitive spark sensor
221. SAMVELOV A.V., YASEV S.G., MOSKALENKO A.S., BARANOV A.Yu.¹, PAKHOMOV O.V.¹
Opto-mechanical Design Office "ASTRON", Lytkarino
¹*ITMO University, Saint-Petersburg*
Microcryogenic Stirling system for photodetector cooling with rare-earth regenerator and magnetocaloric cooling stage
222. BABKIN O.E., BABKINA L.A.¹, AYKASHEVA O.S.², ILINA V.V.
Saint-Petersburg State University of Film and Television
¹*S@H Technology Ltd., Saint-Petersburg*
²*PPG Industries, Amsterdam, The Netherlands*
UV curing technology for production of optic cables

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223. MANDOUR M.M.¹, ASTASHKEVICH S.A.¹, KUDRYAVTSEV A.A.^{1,2}
¹*Saint-Petersburg State University*
²*Harbin Institute of Technology, China*
A photoelectric converter based on a two-chamber photoplasma cell: 2D-simulation
224. SEMENOVA L.E.
Prokhorov General Physics Institute of the RAS, Moscow
Hyper-Raman scattering of light under two-photon excitation near resonance with the lowest excitonic level in a CdS crystal
225. MITYUREVA A.A., SMIRNOV V.V.
Saint-Petersburg State University
Step by step electron impact excitation of 5p levels of krypton atom
226. NALBANDYAN V.M., KUCHERENKO M.G.
Orenburg State University
Effect of plasmon nanoparticles on radiative and nonradioactive processes in molecules
227. HOPERSKY A.N., NADOLINSKY A.M., KONEEV R.V., SUKHORUKOVA O.B.
Rostov State Transport University, Rostov-on-Don
Braking radiation at resonant Compton scattering a photon by an atomic ion
228. ASTASHKEVICH S.A.
Saint-Petersburg State University
Study of the influence of stability of electronic states on information-theoretic measures of the molecule
229. ERMAKOV L.K.
Peter the Great Saint-Petersburg Polytechnic University
Distribution of density of electronic states on energy in P4 - Se3

230. ALEKSEEV E.E., KAZANTSEV S.Yu.¹
National Research Centre "Kurchatov Institute", Moscow
¹Moscow Technical University of Communications and Informatics
Application of the finite element method for calculating laser characteristics of ZnSe:Fe²⁺ crystals with a non-monotone doping profile
231. KOZHEVNIKOV V.A., PRIVALOV V.E.
Peter the Great Saint-Petersburg Polytechnic University
He-Ne laser active element section geometry and its power
232. KAZANTSEV S.Yu., KISELEV V.V.¹, MARCHENKO V.M.
Moscow Technical University of Communications and Informatics
¹Prokhorov General Physics Institute of the RAS, Moscow
Features of the spectra of thermal radiation of the Ti³⁺:Al₂O₃ by laser heating profile
233. ASTASHKEVICH S.A., BOROVYKH S.V., MITYUREVA A.A., SMIRNOV V.V.
Saint-Petersburg State University
Photoionization dynamics of H₂ under the action of strong ultrashort X-ray radiation
234. BAZZAL Kh., VOROPAY E.S., ZAJOGIN A.P., LICHKOVSKIY V.V.
Belarusian State University, Minsk
Study of the influence of inter-pulse interval on the processes of formation of AlO when exposed to aluminum target by double laser pulses
235. GUSEIN-ZADE N.G.¹, ZHLUKTOVA I.V.¹, KAZANTSEV S.Yu.², KAMYNNIN V.A.¹, PODLESNYKH S.V.¹, ROGALIN V.E.³, TRIKSHEV A.I.¹, FILATOVA S.A.¹, TSVETKOV V.B.^{1,4}
¹Prokhorov General Physics Institute of the RAS, Moscow
²Moscow Technical University of Communications and Informatics
³Institute for Electrophysics and Electric Power of the RAS, Saint-Petersburg
⁴National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Space-temporary evolution of electron-hole plasma formed in laser semiconductor plasma antenna
236. RYMKEVICH V.S., SERGEEV M.M.
ITMO University, Saint-Petersburg
Dynamic of nanosized depth relief formation on fused silica by laser induced microplasma action
237. MELEKHOV A.P., VOVCHENKO E.D., KOMARESKY V.V., RAMAKOTI R.S., DOMANINA I.V.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Observation of high-frequency oscillations of the brightness from laser-initiated vacuum spark plasma source
238. KOZHEVNIKOV V.A., PRIVALOV V.E., FOTIADI A.E.
Peter the Great Saint-Petersburg Polytechnic University
The positive column in laser tubes of slowly changing diameter
239. KHOMICH Yu.V., MALINSKIY T.V., MIKOLUTSKIY S.I., ROGALIN V.E., YAMSHCHIKOV V.A., KAPLUNOV I.A.¹, IVANOVA A.I.¹
Institute for Electrophysics and Electric Power of the RAS, Saint-Petersburg
¹Tver State University
High energy UV laser impact on tungsten carbide (WC-3 % Co)
240. GAVRISH S.V., LOGINOV V.V., PUGACHEV D.Yu., PUCHNINA S.V.
Scientific and Production Enterprise "Melitta" Ltd, Moscow
Influence of UV plasma radiation on the induced optical absorption of sapphire envelope of pulsed gas discharge lamps
241. SREDIN V.G.¹, VOITSEKHOVSKII A.V.², ANAN'IN O.B., MELEKHOV A.P., RAMAKOTI R.S., YURCHAK V.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
¹Peter the Great Military Academy of Strategic Rocket Forces, Balashikha
²National Research Tomsk State University
Microscopic mechanism of surface defects formation in Cd_xHg_{1-x}Te by soft X-ray radiation
242. SIDOROV A.I.^{1,2}, BUKHARINA A.B.¹, PENTO A.V.¹, ABLIZEN R.S.¹, NIKIFOROV S.M.¹, KRAVETS K.Yu.³
¹Prokhorov General Physics Institute of the RAS, Moscow
²National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
³V.I. Vernadsky Institute of Geochemistry and Analytical Chemistry of the RAS, Moscow
Comparison of ionization efficiency by laser plasma radiation and chemical ionization in mass spectrometry of organic compounds
243. MASLOVA G.T., ZAJOGIN A.P., MAVRICHEV A.S.¹, DERZHAVETS L.A.¹, TRUBETSKAYA A.S., TITOVA A.V.
Belarusian State University, Minsk
¹RRPC of Oncology and Medical Radiology, Minsk, Belarus
Application of laser atomic emission spectrometry the dried drops of blood plasma in the diagnosis of brain tumors (astrocytoma)
244. PROKOPENKO T.A.¹, NECHIPURENKO N.I.¹, PASHKOVSKAYA I.D.¹, ZAJOGIN A.P., PATAPOVICH M.P.
Belarusian State University, Minsk
¹RRPC of Oncology and Medical Radiology, Minsk, Belarus
Application of laser atomic emission spectrometry of dried blood plasma droplets in the diagnosis of patients with cerebrovascular pathology
245. OREKHOVA N.A.¹, MARTYNOVA A.A.¹, GURINA A.M.¹, ZAJOGIN A.P., SHUNDALOV M.B.
Belarusian State University, Minsk
¹Secondary School № 64, Minsk, Belarus
Investigation of the mineral composition of the stone part of the Bragin meteorite by laser atomic emission spectrometry
246. TIMCHENKO E.V., TIMCHENKO P.E., DOLGYSHKIN D.A.¹, VOLOVA L.T.¹, LAZAREV V.A.¹, MARKOVA M.D., LOMKINA A.V.
Samara National Research University
¹Samara State Medical University
Application of Raman spectroscopy to assess the articular surface after performing chondroplasty in rabbits
247. TIMCHENKO E.V., TIMCHENKO P.E., PISAREVA E.V., VOLOVA L.T.¹, FROLOV O.O., FEDOROVA Ya.V., SUBATOVICH A.N.
Samara National Research University
¹Samara State Medical University
Chemometric analysis of bone tissue at osteoporosis by Raman spectroscopy
248. KRASNIKOV I.V.^{1,2}, SETEIKIN A.Yu.^{1,2}, ROTH B.³
¹Amur State University, Blagoveshchensk
²Immanuel Kant Baltic Federal University, Kaliningrad
³Leibniz University, Hannover, Germany
Modern approaches in modeling interactions of optical radiation with tissues

249. ONIKIENKO E.V., RUBASS A.F.
V.I. Vernadsky Crimean Federal University, Simferopol
Investigation of biological tissues by Stokes polarimetry method
250. TIMCHENKO E.V., TIMCHENKO P.E., ZYBIN M.A.¹, CHERNYI-TKACH K.B., FROLOV O.O., IVLIEV M.A.¹, DOLGUSHOV G.G.¹
Samara National Research University
¹Dental Clinic "Diamant", Samara
Chemometric analysis of Raman spectra of dental tissues during periodontitis
251. TIMCHENKO E.V., TIMCHENKO P.E., ZYBIN M.A.², VOLOVA L.T.¹, FROLOV O.O., DOLGUSHOV G.G.²
Samara National Research University
¹Samara State Medical University
²Dental Clinic "Diamant", Samara
Spectral analysis of dentine materials
252. GERASIMENKO A.V., POPOV A.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Laser-ablative synthesis of silicon nanoparticles having Mie resonances in the visible range for biomedical applications
253. KRYUCHKOV D.S., IONIN A.A., KINYAEVSKIY I.O., KLIMACHEV Yu.M., SAGITOVA A.M.
Lebedev Physical Institute of the RAS, Moscow
Femtosecond laser fabrication of linear graphitized microstructures in a bulk of polycarbonate samples by ultrashort laser pulses
254. SHADRIN N.M., ZARIPOV M.R.¹, KALUGIN A.I.¹, ANTONOV E.A.¹
Kalashnikov Izhevsk State Technical University
¹Udmurt Federal Research Center of UB RAS, Izhevsk
Laser system for real-time control of radial extension turbine blades
255. KOP'EV P.S.¹, KOMAROVA O.S., LENTOVSKII V.V., FEDOROV D.L.
Baltic State Technical University «VOENMEH» named after D.F. Ustinov, Saint-Petersburg
¹Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
Research of prototype high-power semiconductor lasers
256. SHNYREV S.L., DOLIN A.A., RYBAKOV M.A., SULTANGULOVA A.I., KONDRASHOV A.A., KOLESNICHENKO A.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Development of method for detection of sulfide hydrogen using tunable diode laser absorption spectroscopy
257. DYACHENKO V.V.¹, PRIVALOV V.E., SHEMANIN V.G.¹
Peter the Great Saint-Petersburg Polytechnic University
¹Novorossiysk Polytechnic Institute of Kuban State Technological University
Determination of the atmospheric aerosol disperse composition by lidar
258. FEDOROV D.O.¹, KORENSKY M.Yu., LAPSHIN K.E., GANIN D.V., VARTAPETOV S.K.¹
Prokhorov General Physics Institute of the RAS, Moscow
¹Optosystems Ltd., Moscow
Wavelength swept laser for optical coherence tomography based on commercially available components
259. DUDOVA D.S., GANIN D.V.¹, SHAVKUTA B.S., KORKUNOVA O.S.², MINAEV N.V.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
¹Prokhorov General Physics Institute of the RAS, Moscow
²Baikal Institute of Nature Management of SB RAS, Ulan-Ude
Two photon laser printing of optical raster for applied optics tasks
260. OSTANIN A.A., LIJING Z., ZAKOLDAEV R.A.
ITMO University, Saint-Petersburg
Femtosecond laser recording of waveguide structures in porous glasses for touch applications
261. ZHIGARKOV V.S., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Destruction and modification of absorbing metal films during laser printing
262. GOZHALSKII D.I., REZNIK I.A., BARANOV M.A., CHEREVKOV S.A., DUBAVIK A.Yu., VENIAMINOV A.V.
ITMO University, Saint-Petersburg
Study of semiconductor nanoplatelets' (CdSe) laser heating in the interests of luminescent scanning microscopy
263. MINAEVA S.A., MINAEV N.V., MIRONOV A.V., MIRONOVA O.A., SYACHINA M.A., KRUMINS E.¹, HOWDLE S.M.¹, POPOV V.K.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
¹University of Nottingham, United Kingdom
Installation of selective laser sintering with high spatial resolution
264. GUBAIDULLINA K.V., VOZIANOVA A.V., MASYUKOV M.S., KHODZITSKY M.K.
ITMO University, Saint-Petersburg
Numerical calculation of chiral metasurfaces using finite difference time domain method
265. SAKHAROV M.V., SREDIN V.G., ZAPONOV A.E., KONRADI D.S., KUZNETSOV I.V.
Peter the Great Military Academy of Strategic Rocket Forces, Balashikha
Computer simulation of thermal fields evolution induced by laser radiation in multilayer semiconductor structures
266. REZNIK I.A., MATUSHKINA A.A., DUBAVIK A.Yu., ORLOVA A.O.
ITMO University, Saint-Petersburg
Characterization and photoinduced change of the optical properties of magneto-luminescent nanocomposites
267. BELOUSOVA I.M., DANILOV O.B., ZHEVLAKOV A.P., POPOVA I.O.¹, SHAGANOV I.I.
S.I. Vavilov State Optical Institute, Saint-Petersburg
¹Herzen State Pedagogical University of Russia, Saint-Petersburg
Photophysical nanosized effects by phase transitions in vanadium oxides
268. REZVYKH A.D., MEGED M.S., DEMCHENKO P.S., KHODZITSKY M.K.
ITMO University, Saint-Petersburg
Study of optical properties of thin and ultrathin conducting films by means of terahertz time-domain spectroscopy
269. OLEINICHUK E.A., TUYTSYNA A.A., ZHIGARKOV V.S., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Experimental research of laser-induced thermocavitation
270. AIMUKHANOV A.K., ZAVGORODNIY A.V., AHATOVA Zh.Zh.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Optical and photoelectric characteristics of thin films of dihydrodibenzetetrazaananulene

271. AIMUKHANOV A.K., ZAVGORODNIY A.V., ILYASSOV B.R., ZEINIDENOV A.K.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Influence of a magnetic field on the IVC of a bulk heterojunction of a polymer solar element
272. LIVASHVILI A.I., KRISHTOP V.V., VINOGRADOVA P.V., KIREEVA N.M., MANGULA I.S.
Far Eastern State Transport University, Khabarovsk
Modeling of heat and mass transfer in a solar collector of direct radiation absorption
273. OMAROVA G.S., SELIVERSTOVA E.V., IBRAYEV N.Kh.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Photovoltaic properties of dye solar cells, sensitized with polymethine dye in the presence of Ag nanoparticles
274. ZHUMABEKOV A.Zh., KIM M.S., SADYKOVA A.E., SELIVERSTOVA E.V.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Influence of reduced graphene oxide on electrophysical and photocatalytic properties of TiO₂

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275. KOTLIKOV E.N., LAVROVSKAYA N.P., NOVIKOVA Ju.A.
State University of Aerospace Instrumentation, Saint-Petersburg
Metal-dielectric interference filters
276. VANIN A.I., PANKOVA S.V., SOLOVYEV V.G., TSVETKOV A.V., YANIKOV M.V.
Pskov State University
Optical properties of nanocomposite Sn/opal
277. BALAN N.N., IVANOV V.V. E.A., KUZOVKOV A.V., KHARCHENKO E.L.
Molecular Electronics Research Institute, Zelenograd
Resolution enhancement techniques of projection optical microlithography at modern nodes of semiconductor technology
278. EGOROV A.N., MAVRITSKIY O.B., PECHENKIN A.A., SAVCHENKOV D.V., KHOLINA M.S.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Single event effects simulation in ICs using femtosecond wavelength-tunable laser backside irradiation
279. BOGACHKOV I.V., KOMISARCHUK N.A.
Omsk State Technical University
Program for determining the varieties of optical fiber types by Brillouin reflectograms
280. TAVLEEVA A.A., ARAPOV Yu.D., KUBASOV P.V., YAROSHCHUK P.N.
N.L. Dukhov All-Russian Research Institute of Automatics, Moscow
Determination of sound speed in optical fibers based on the effect of stimulated Mandelstam-Brillouin scattering
281. BOGACHKOV I.V., ALEKSANDROVA A.I.
Omsk State Technical University
Detection of temperature effects on optical fibers by Brillouin reflectograms
282. BOGACHKOV I.V., KOMISARCHUK N.A.
Omsk State Technical University
Program for analysis of Brillouin reflectograms of optical fibers
283. KAMENEV O.T.^{1,2}, PETROV Yu.S.², PODLESNYKH A.A.¹
¹*Far Eastern Federal University, Vladivostok*
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Fiber optic strainmeter for prediction systems of dangerous mountain-dynamic phenomena
284. IDRISOV R.F.
Samara National Research University
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285. PETROV N.I.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
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286. GOSHEV A.A., ESEEV M.K., MAKAROV D.N.
Northern Arctic Federal University named after M.V. Lomonosov, Arkhangelsk
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287. KHALYAPIN V.A., BUGAY A.N.¹
Kaliningrad State Technical University
¹*Joint Institute of Nuclear Researches, Dubna*
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288. MAHILNY U.V., STANKEVICH A.I.
Belarusian State University, Minsk
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289. UKOLOV D.S.¹, CHIRKOV N.A.¹, CHERNIAK M.E.^{1,2}, MOZHAEV R.K.^{1,2}, PECHENKIN A.A.¹
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*Specialized Electronic Systems, Moscow*
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290. ZHBANOVA V.L.
National Research University "Moscow Power Engineering Institute"
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291. BLANK A.V., BOGDANOV S.D.
Lomonosov Moscow State University
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292. BUSURIN V.I., SHTEK S.G.¹, ZHEGLOV M.A.¹, KOROBKOV K.A., BULYCHEV R.P.
Moscow Aviation Institute (National Research University)
¹*JSC "GosNIIP", Moscow*
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293. GORYAINOV V.S., BUZNIKOV A.A.
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294. SITNIKOV N.N.^{1,2}, KHABIBULLINA I.A.², MITIN D.B.², ASHMARIN A.A.², SHELYAKOV A.V.¹
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Keldysh Research Center, Moscow
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295. SHOSTKA N.V., SOKOLENKO B.V., POLETAEV D.A.
V.I. Vernadsky Crimean Federal University, Simferopol
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296. BUSURIN V.I., KOROBKOV V.V., DANG V.K., VO S.H.
Moscow Aviation Institute (National Research University)
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297. TYNYSHOVA T.D., ISMANOV Yu.H.¹
Kyrgyz State University of Construction, Transport and Architecture named after N. Isanov, Bishkek, Kyrgyz republic
¹Institute of Physics of NAS KR, Bishkek, Kyrgyz republic
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298. PESNYAKOV V.V., VOZIANOVA A.V.
ITMO University, Saint-Petersburg
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299. ZEMTSOV D.S., NEBAVSKIY V.A., STARIKOV R.S., FAZLIEV T.Sh., KHAFIZOV I.Zh.
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300. ROGOZHNIKOV G.S., ROMANOV V.V., MISHINA I.V.
All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region
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301. SKRIPAL A.V., DOBDIN S.Yu. A.A., DZHAFAROV A.V.
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302. ZACHINYAEV Yu.V., GUDKOVA Yu.A., SHTOKOLOV A.A.
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303. AVLASEVICH N.T., LYALIKOV A.M.
Y. Kupala Grodno State University, Belarus
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304. GUROV I.P., KULIKOVA E.N.¹
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305. CHERESHNEV V.O., FROLOV S.V., PROSKURIN S.G.
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306. CHERESHNEV V.O., PROSKURIN S.G.
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307. KOLOKOLNIKOV I.N., SAVCHENKO E.A., VELICHKO E.N.
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308. ZAKHAROV S.M.
Institute of Electronic Control Machines named after I.S. Brook, Moscow
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309. ANTONOV A.I.
Penza State University of Architecture and Construction
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310. KUZMIN D.V., KHANEVICH P.A., ODINOKOV S.B., MARKIN V.V., ZHERDEV A.Yu., SHISHOVA M.V., BETIN A.Yu., NIKONOROV N.V.¹, IVANOV S.A.¹
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311. NASTAS A.M., IOVU M.S., TOLSTIK A.L.¹, STASHKEVICH I.V.¹
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¹Belarusian State University, Minsk
Corona discharge influence on the formation of holographic gratings in structures of metal - chalcogenide glassy semiconductor
312. BORODINA L.N., BORISOV V.N., VENIAMINOV A.V.
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313. GANZHERLI N.M., GULYAEV S.N.¹, MAURER I.A., ARKHIPOV A.V.¹
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¹Peter the Great Saint-Petersburg Polytechnic University
Mechanisms of the high-frequency holographic relief structure creation on dichromated gelatin
314. BORISOV V.N., OKUN R.A.¹, LESNICHII V.V.², PAVLYUK A.S.
ITMO University, Saint-Petersburg
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315. MAHILNY U.V., STANKEVICH A.I., KHRAMTSOV E.A.
Belarusian State University, Minsk
Polymeric material for direct recording of phase volume holograms in "red" spectral range
316. PEN E.F.^{1,2}
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²*Novosibirsk State Technical University*
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320. GUBAREV A.P.², SHALYGIN A.N.¹, SHCHERBINA A.D.², KUZNETSOV A.S., ODINOKOV S.B.
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321. SHOSTKA N.V., SOKOLENKO B.V., SHOSTKA V.I.
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322. BELASHOV A.V.^{1,2}, ZHIKHOREVA A.A.¹, BELYAEVA T.N.³, SALOVA A.V.³, KORNILOVA E.S.³, SEMENOVA I.V.¹, VASUTINSKII O.S.¹
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²*ITMO University, Saint-Petersburg*
³*Institute of Cytology of the RAS, Saint-Petersburg*
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323. ZYKOVA L.A., BURMAK L.I.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
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324. PAVLOV P.V., WOLF I.E., KUSKOV I.E., HOBTA R.V.
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Non-destructive control of aircraft glazing by the method of computer holography
325. GEORGIEVA A.O.¹, BELASHOV A.V.^{1,2}, PETROV N.V.¹
¹*ITMO University, Saint-Petersburg*
²*Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg*
Wavefront correction using the digital micromirror device and off-axis digital holography
326. EVTIKHIEV N.N., MOLODTSOV D.Yu., KRASNOV V.V., KUZMIN I.D., STARIKOV R.S.
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327. EVTIKHIEV N.N., GONCHAROV D.S., ZLOKAZOV E.Yu., PONOMAREV N.M., STARIKOV R.S., TROTSSENKO N.A., FAZLIEV T.Sh.
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Comparison of micro-mirror and phase liquid crystal SLM as an image input devices in the invariant optical-digital correlator
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329. KULAKOV M.N., STARIKOV R.S., CHERYOMKHIN P.A.
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331. GONCHAROV D.S., PONOMAREV N.M., STARIKOV R.S., TROTSSENKO N.A.
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332. GONCHAROV D.S., PONOMAREV N.M., STARIKOV R.S., TROTSSENKO N.A., FAZLIEV T.Sh.
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