

X INTERNATIONAL CONFERENCE ON PHOTONICS AND INFORMATION OPTICS

THE PROGRAM COMMITTEE

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Gulyaev Yu.V. – academician of the RAS, president of Kotelnikov Institute of Radio-engineering and Electronics of the RAS, Moscow
Evtikhiev N.N. – professor, head of the department of National Research Nuclear University «MEPhI», Moscow

Altshuler G. – professor, senior vice president of IPG-Medical Corp., Marlborough, USA
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Komotskii V.A. – professor, chief researcher of Peoples Friendship University of Russia, Moscow
Kompanets I.N. – professor, head of the department of Lebedev Physical Institute of the RAS, Moscow
Kozlov S.A. – professor, head of the department of Saint-Petersburg National Research University of Information Technologies, Mechanics and Optics
Krishtop V.V. – professor, chief researcher of Far Eastern State Transport University, Khabarovsk
Kulchin Yu.N. – academician of the RAS, director of Institute of Automation and Control Processes FEB RAS, Vladivostok
Kutanov A.A. – academician of NAS KR, head of the department of Institute of Physical-Technical Problems and Material Science of NAS KR, Bishkek, Kyrgyz republic
Lavrov A.P. – professor, chief researcher of Saint-Petersburg State Polytechnical University, Russia
Maimistov A.I. – professor, chief researcher of National Research Nuclear University «MEPhI», Moscow
Malomed B. – professor of Department of Interdisciplinary Studies of Tel Aviv University, Israel
Manykin E.A. – professor, chief researcher of National Research Center “Kurchatov institute”, Moscow
Odinokov S.B. – professor, chief researcher of the department of Bauman Moscow State Technical University
Potaturkin O.I. – professor, vice director of Institute of automation and electrometry SB RAS, Novosibirsk
Proklov V.V. – professor, head of the department of Fryazino Branch of Kotelnikov Institute of Radio-engineering and Electronics of RAS
Ryabukho V.P. – professor, chief researcher of National Research Saratov State University named after N.G Chernyshevsky
Shandarov S.M. – professor, head of the department of Tomsk State University of Control Systems and Radioelectronics
Starikov R.S. – professor, chief researcher of National Research Nuclear University «MEPhI», Moscow
Tverdokhlebo P.E. – professor, chief researcher of Institute of Automation and Electrometry SB RAS, Novosibirsk
Tolstik A.L. – professor, head of the department of Belarusian State University, Minsk, Belarus
Vishnyakov G.N. – professor, chief researcher of Russian Research Institute for Optical and Physical Measurements, Moscow
Volostrnikov V.G. – professor, chief researcher of Samara Branch of Lebedev Physical Institute of the RAS

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Kuznetsov A.P. – deputy director of Institute of Laser and Plasma Technologies of National Research Nuclear University «MEPhI», Moscow

Scientific secretary

Rodin V.G. – senior scientific researcher of National Research Nuclear University «MEPhI», Moscow

Website: <http://fioconf.mephi.ru>

X INTERNATIONAL CONFERENCE ON PHOTONICS AND INFORMATION OPTICS

THE PROGRAMM

CONFERENCE OPENING. PLENARY

Wednesday, January 27, 2021, 9.00

1. GABITOV I.R.^{1,2}, GIBNEY J.¹, KUK I.A.²
¹University of Arizona, Tucson, USA
²Skolkovo Institute of Science and Technology, Moscow region
Optical communications in presence of dispersive broadened pulse overlapping and four wave mixing
2. ZIMNYAKOV D.A.^{1,2}, VOLCHKOV S.S.¹, KOCHKUROV L.A.¹
¹Yury Gagarin State Technical University, Saratov
²Institute of Precision Mechanics and Control of the RAS, Saratov
Fundamental limitations of random lasing in fluorescent inhomogeneous media
3. MINAEV N.V., ZHIGARKOV V.S., YUSUPOV V.I.
Institute of Photonic Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Laser printing of hydrogel drops with living microbiological objects by the lift method
4. GORODETSKY A.A.^{1,2}
¹University of Birmingham, United Kingdom
²ITMO University, Saint-Petersburg
Compact room-temperature operating terahertz transceivers

PLENARY 2

Wednesday, January 27, 2021, 12.00

5. KABANOVA O.S., RUSHNOVA I.I., MELNIKOVA E.A., TOLSTIK A.L.
Belarusian State University, Minsk
Control of light beams by planar liquid crystal elements
6. POZHIDAEV E.P., TKACHENKO T.P., KUZNETSOV A.V., KOMPANETS I.N.
Lebedev Physical Institute of the RAS, Moscow
Electro-optical switching of the main optical axis of a helix nanostructure in FLC display cell
7. SHUR V.Ya., AKHMATKHANOV A.R., ESIN A.A., CHUVAKOVA M.A., KOLKER D.B.¹, BOYKO A.A.¹, PAVELYEV V.S.², SOKOLOVSKII G.S.³
Ural State University, Ekaterinburg
¹Novosibirsk State University
²Samara National Research University
³Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
Nonlinear optical conversions in ferroelectric crystals and thin films with periodical domain structures
8. KHUDAYBERGANOV T.A., BUKHAROV D.N., KUCHERIK A.O., ARAKELIAN S.M.
Vladimir State University named after Alexander and Nikolay Stoletovs
Development of elements of logical systems on new physical principles by using the approaches of quantum nanophotonics of low-dimensional topological structures

Meeting 1

Wednesday, January 27, 2021, 14.00

9. KINYAEVSKIY I.O., KOVALEV V.I., DANILOV P.A., SMIRNOV N.A., KUDRYASHOV S.I., KORIBUT A.V., DUNAEVA E.E.¹, IONIN A.A.
Lebedev Physical Institute of the RAS, Moscow
¹Prokhorov General Physics Institute of the RAS, Moscow
Stimulated Raman scattering particularities of femtosecond laser pulses in BaWO₄ crystal
10. TITOV R.A., VOSKRESENSKIY V.M., SIDOROV N.V., 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
Influence of B₂O₃ flux on structure particularities and stoichiometry of LiNbO₃:B crystals (0.55, 0.69, 0.83 mol. % B₂O₃)
11. SOSUNOV A.V., VOLYNTSEV A.B.
Perm State National Research University
Stability of integral-optical circuits based on H_xLi_{1-x}NbO₃-waveguides depending on the quality of the near-surface layer of the lithium niobate
12. 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
¹Petrozavodsk State University
Photoluminescence in near IR-range of nominally pure lithium niobate crystals obtained by different technologies
13. SAVCHENKOV E.N., SHANDAROV S.M., DUBIKOV A.V., KUZMICH D.E., SHUR V.Ya.¹, AKHMATKHANOV A.R.¹, ESIN A.A.¹
Tomsk State University of Control Systems and Radioelectronics
¹Ural State University, Ekaterinburg
Light diffraction on periodically poled domain structures with inclined walls in lithium niobate crystal in an applied static electric voltage

14. GRISHCHENKO I.V., STIRMANOV Yu.S.¹, KONYASHKIN A.V.¹, RYABUSHKIN O.A.¹
¹Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
²Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
Measurements of optical absorption and scattering of high-power laser radiation in lithium triborate crystals
15. NOVOKOVSKAYA A.L., SYCHUGIN S.A., BAKUNOV M.I.
 Lobachevsky State University of Nizhny Novgorod
Generation of quasistatic field bunches by optical rectification of ultra-short laser pulses
16. KOSTENIKOV M.A., BESPALOV N.S., KOCHETOVA V.V., SHMAKOV S.S.A.V., SHANDAROV S.M., BURIMOV N.I.
 Tomsk State University of Control Systems and Radioelectronics
Contribution of the inverse flexoelectric effect to the photorefractive response in the counter-interaction of light waves a crystal (110)-cut
17. NAUMENKO N.F., CHIZHIKOV A.I., YUSHKOV K.B., MOLCHANOV V.Ya.
 National University of Science and Technology "MISIS", Moscow
Analysis of acoustooptic interaction of unpolarized radiation in KY(WO₄)₂ crystal
18. TRETIAKOV S.A., KAPLUNOV I.A., MOLCHANOV S.V.
 Tver State University
Laser-induced damage in surface layer of single crystal of paratellurite

Meeting 2

Wednesday, January 27, 2021, 17.00

19. KRIVENKOV V.A.¹, SAMOKHVALOV P.S.¹, NABIEV I.R.^{1,2}, RAKOVICH Yu.P.^{3,4}
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²University of Reims Champagne-Ardenne, France
³Basque University, San Sebastian, Spain
⁴Basque Foundation for Science, Bilbao, Spain
Influence of the Purcell effect on the photoluminescence of quantum dots near the self-organized arrays of plasmon nanoparticles
20. IVANOV A.A.^{1,2}, CHALDYSHEV V.V.^{1,2}
¹Peter the Great Saint-Petersburg Polytechnic University
²Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
Room temperature exciton-polariton resonant optical reflection by periodic system of 100 InGaN quantum wells
21. BURMISTROV E.R., AVAKYANTS L.P., CHERVYAKOV A.V.
 Lomonosov Moscow State University
Influence of mechanical tangential voltages on the integral radiation intensity of InGaN/GaN led structures
22. MATROSOVA A.S.^{1,2}, KUZMENKO N.K.², EVSTROPIEV S.K.^{1,2,3}, ASEEV V.A.², DEMIDOV V.V.¹, NIKONOROV N.V.²
¹S.I. Vavilov State Optical Institute, Saint-Petersburg
²ITMO University, Saint-Petersburg
³Saint-Petersburg State Institute of Technology (Technical University)
Hollow-core antiresonant fibers modified with Gd₂O₃:Nd³⁺-based thin-film coatings
23. SHISHKANOV O.N.¹, BOYCHENKO A.P., YAKOVENKO N.A.
 Kuban State University, Krasnodar
¹JSC «Saturn», Krasnodar
Spectral optical properties of silver nanoparticles formed by electric field in polymer matrix
24. DEREPKO V.N., OVCHINNIKOV O.V., SMIRNOV M.S., CHEVYCHELOVA T.A., GREVCEVA I.G., PEREPELTSITS A.S.
 Voronezh State University
Extinction spectra of gold nanoparticles coated with SiO₂ shells
25. SAPARINA S.V.¹, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan
Enhancement effects of antistokes Raman scattering of light in amorphous carbon nanofilms
26. KARMANOVA N.S., KRASNOK A.E.¹
 Moscow Institute of Physics and Technology (State University), Dolgoprudny
¹Advanced Science Research Center, City University of New York, USA
Weak and strong coupling in hybrid systems with two-dimensionals semiconductors. tunable metasurfaces
27. CHERNYKH E.A.¹, KHARINCEV S.S.^{1,2}
¹Kazan Federal University
²Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan
Photo-induced heating of a polymer film using a plasmon TiN nanoantenna
28. KLISHIN Yu.A., YAKUBOVSKY D.I., MISHRA P., KONDRATYUK E.V., ERMOLAEV G.A., MIRONOV M.S., STEBUNOV Yu.V., ARSENIN A.V., VOLKOV V.S.
 Moscow Institute of Physics and Technology (State University), Dolgoprudny
Sheet resistance of ultra-thin gold films on molybdenum disulfide single crystals

Meeting 3

Thursday, January 28, 2021, 9.00

29. ZHELEZNOV V.Yu., MALINSKIY T.V., MIKOLUTSKIY S.I., ROGALIN V.E., PETROV N.V., FILIN S.A., 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
Laser etching of germanium by exposure to powerful ultraviolet pulse
30. OSIPOV A.V.
 Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
Laser synthesis of noble metal nanoparticles using alexandrite tunable narrow-band laser

31. ZHIGARKOV V.S., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Characteristics of the microorganisms transfer in gel micro-droplets in laser bioprinting
32. ANDREEV S.N., MUKHANOV S.A., TARAKANOV V.P.¹
Moscow Polytechnic University
¹*Joint Institute for High Temperatures of the RAS, Moscow*
Computational and theoretical study of the spectral characteristics of proton beams accelerated by super-intense laser pulses
33. AKMALOV A.E., CHISTYAKOV A.A., KOSTAREV V.A., KOTKOVSKII G.E.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Methods of enhancement of sensitivity of faims with laser ionization for detection of ultra-low concentrations of explosive vapors
34. STEPANOV I.A., HYDYROVA S., VASILIEV D.D., MOISEEV K.M.
Bauman Moscow State Technical University
Calculation of SNSPD response time depending on $W_xSi_{(1-x)}$ film parameters
35. AKMALOV A.E., KOTKOVSKII G.E., KUZICHIN Yu.A., MARTYNOV I.L., OSIPOV E.V., CHISTYAKOV A.A., TKACHUK A.P.¹, VERDIEV B.I.¹, ALATYREV A.G.¹
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
¹*National Research Center for Epidemiology and Microbiology named after the honorary academician N.F. Gamaleya, Moscow*
The ability of simultaneously using of several exciting leds in real-time flow cytometry of bioaerosols in air
36. STEPANOV I.A., HYDYROVA S., VASILIEV D.D., MOISEEV K.M.
Bauman Moscow State Technical University
Calculation of the cutoff wavelength of SNSPD depending on $W_xSi_{(1-x)}$ film parameters
37. MOGILNAYA T.Yu., PAGAVA L.L.¹
Moscow Aviation Institute (National Research University)
¹*«Avionica» Joint Stock Company, Moscow*
Investigation of the second harmonic spectra of the VRMB of colloidal solutions of nanosilver and biological objects containing DNA
38. KASIANENKO E.M., OMECHENKO A.I.
Institute of Photonic Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Dependence of the electric conductivity of the cartilage tissue on the temperature during laser heating

POSTERS 1

Thursday, January 28, 2021, 12.00

Meeting 4

Thursday, January 28, 2021, 13.00

39. PUTILOV A.G.
Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
Research of the generation characteristics of a quantum-cascade laser of the mid-IR range
40. KORMASHOVA D.I., ZAZYMKINA D.A., 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.
Lebedev Physical Institute of the RAS, Moscow
¹*Institute of Electronics, Microelectronics and Nanotechnology, Lille, France*
Dinamics of terahertz NH_3 laser generation at optical pumping CO_2 laser
41. ANTIPOV A.A.
Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
Multidisciplinary tunable solid-state laser NIR
42. SHAKHOVOY R.A.^{1,2}, TUMACHEK A.S.², ANDRONOVA N.M.², MIRONOV Yu.B.², KUROCHKIN Yu.V. B.B.^{1,3,4}
¹*QRate, Skolkovo, Moscow region*
²*Moscow Technical University of Communications and Informatics*
³*National University of Science and Technology "MISIS", Moscow*
⁴*Russian Quantum Centre, Skolkovo, Moscow region*
Analyzing the dependence of phase diffusion on the parameters of a laser operating in the gain switching mode
43. SHEPELEV A.E.
Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
The control of pulses temporal shape to increase the efficiency of the functional use of solid state lasers
44. VOKHNIK O.M.¹, KOROLENKO P.V.^{1,2}, KUBANOV R.T.¹
¹*Lomonosov Moscow State University*
²*Lebedev Physical Institute of the RAS, Moscow*
Optical cavity excited by a laser beam with varying frequency
45. BLINOV I.Yu., PAVLOV V.I., KHATYREV N.P.
All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleevo, Moscow region
Mathematical simulation of thermorefractive noises in an installation with optical microsonators
46. VOROPEV K.O., ZHUMAIEVA I.O., IONOV A.S.
OJSK "Planeta-OKB", Veliky Novgorod
Research of VCSELs 1.31 μm spectra with different aperture sizes
47. IONIN A.A., KINYAEVSKIY I.O., KLIMACHEV Yu.M., KOTKOV A.A., KOZLOV A.Yu., SAGITOVA A.M., SINITSYN D.V.
Lebedev Physical Institute of the RAS, Moscow
Broadband mid-infrared laser systems
48. KHUSYAINOV D.I., BURYAKOV A.M., ZAINULLIN F.A., GORBATOVA A.V., MISHINA E.D.
MIREA – Russian Technological University, Moscow
Emission of terahertz radiation radiation from bulk layered black phosphorus

POSTERS 2

Thursday, January 28, 2021, 16.00

Meeting 5

Thursday, January 28, 2021, 17.00

49. SAZONOV S.V.^{1,2}
¹National Research Centre "Kurchatov Institute", Moscow
²Lomonosov Moscow State University
Dissipative soliton in a gain medium with the fast phase relaxation
50. MAIMISTOV A.I., LYASHKO E.I., ELYUTIN S.O.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Total angular momentum of the nonlinear surface wave at the interface between conventional and topological insulator
51. RESHETNIKOV D.D., LOSEV A.S.
Saint Petersburg State University
The possibility of using the radial number of Laguerre-Gaussian modes in problems of quantum computer science
52. SAZONOV S.V.^{1,2}, USTINOV N.V.³
¹National Research Centre "Kurchatov Institute", Moscow
²Lomonosov Moscow State University
³Kaliningrad Institute of Management
Optical solitons in a system of resonant-quasiresonant transitions
53. AKIMOV A.A., GUZAIROV S.A., IVAKHNIK V.V.
Samara National Research University
Quality phase conjugation under four-wave mixing on thermal nonlinearity in the scheme with feedback at high reflection coefficients
54. YERMAKOV O.Ye.^{1,2}, SAMUSEV A.K.¹, GLYBOVSKI S.B.¹, BOGDANOV A.A.¹
¹ITMO University, Saint-Petersburg
²V.N. Karazin Kharkiv National University, Ukraine
Theoretical and experimental study of surface waves on anisotropic resonant metasurfaces
55. ZOLINA K.A.^{1,2}, PERMINOV N.S.^{1,3}, MOISEEV S.A.^{1,3}
¹National Research Technical University named after A.N. Tupolev - KAI
²Kazan Federal University
³Zavoisky Physical-Technical Institute, FRC Kazan Scientific Center of the RAS
Quantum memory on the system of cooled cesium atoms in a photonic crystalline plate with a new geometry of the element
56. VASHUKEVICH E.A., GOLUBEVA T.Yu., GOLUBEV Yu.M.
Saint Petersburg State University
Transformation of modes with orbital angular momentum in quantum memory scheme
57. PETROV N.I.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
Effect of frequency dispersion on the resonant transmission of light in the frustrated total internal reflection filter
58. IVAKHNIK V.V., SAVEL'EV M.V.
Samara National Research University
Four-wave mixing at various concentration of nanoparticles dissolved in a transparent liquid

Meeting 6

Friday, January 29, 2021, 9.00

59. SAETCHNIKOV A.V.^{1,2}, TCHERNIAVSKAIA E.A.¹, SAETCHNIKOV V.A.¹, OSTENDORF A.²
¹Belarusian State University, Minsk
²Ruhr University Bochum, Bochum, Germany
Measurement of physical and chemical parameters with microresonator matrices
60. AKMALOV A.E., KOTKOVSKII G.E., KOZLOVSKII K.I., MAKSIMOV E.M., PLEKHANOV A.A., CHISTYAKOV A.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Detection of organic substances using terahertz radio vision with spectral resolution
61. YERMAKOV O.Ye.^{1,2}, SCHNEIDEWIND H.³, HUBNER U.³, WIEDUWILT T.³, ZEISBERGER M.³, BOGDANOV A.A.¹, KIVSHAR Yu.S.^{1,4}, SCHMIDT M.³
¹ITMO University, Saint Petersburg
²V.N. Karazin Kharkiv National University, Ukraine
³Leibniz Institute of Photonic Technology, Jena, Germany
⁴Australian National University, Canberra, Australia
Record-breaking light coupling into optical fiber under large incident angles
62. GILEV D.G.^{1,2}, CHUVYZGALOV A.A.^{1,2}, STRUK V.K.², KRISHTOP V.V.²
¹Perm National Research State University
²Perm Scientific-Industrial Instrument Making Company
Fiber optical current sensor
63. SAVELYEV E.A.¹, KUZNETZOV P.I.¹, SUDAS D.P.^{1,2}, YAKUSHCHEVA G.G.¹
¹Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
²Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
Sensors on chemically etched optical fiber coated with ZnTe coating
64. MINAEVA E.D.^{1,2}, MINAEV N.V.²
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Institute of Photonic Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Research of differences in the internal structure of three-dimensional structures formed with powders of various fractions by surface-selective laser sintering

65. PROSOVSKIY O.F.¹, DENISOV D.G.², PROSOVSKIY Yu.O.^{1,2}
¹*Obninsk Research and Production Enterprise Tekhnologiya, Kaluga Region*
²*Bauman Moscow State Technical University*
Development of advanced thin-film optical coatings of the glad type for modern optical technology
66. MERKUSHEV D.D., MATITAL R.P., ZVAGELSKY R.D., KOLYMAGIN D.A., VITUKHNOVSKY A.G., CHUBICH D.A.
Moscow Institute of Physics and Technology (State University), Dolgoprudny
Three-dimensional polymer optical interconnections: studying morphology and transmission
67. DENISOV D.G.
Bauman Moscow State Technical University
Current state of oes registration of speckle-modulated fields in the problems of control of the shape and quality parameters of optical surfaces
68. ZININ P.V., BULATOV K.M., MALYKHINA I.V., BYKOV A.A.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
Calibration of the spectral sensitivity of the CCD-matrix

POSTERS 3

Friday, January 29, 2021, 12.00

Meeting 7

Friday, January 29, 2021, 13.00

69. ZLOKAZOV E.Yu., NEBAVSKIY V.A., STARIKOV R.S.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Specificities of femtosecond laser pulsed generators application in photonic analogue to digital convertor scheme based on dispersive stretch of sampling signal
70. PETROV V.M., SHAMRAI A.V.¹, IL'ICHEV I.V.¹, GERASIMENKO N.D., GERASIMENKO V.S., AGRUZOV P.M.¹, LEBEDEV V.V.¹
ITMO University, Saint-Petersburg
¹*Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg*
Operating modes of amplitude and phase microwave integrated optical modulators
71. GRISHACHEV V.V.
Russian State University of the Humanities, Moscow
Analysis of information leakage channels in fiber-optic communication lines: optical tunneling
72. PLJONKIN A.P., ZORIN R.S., NGUYEN B.H., ROSTENKO D.S.
Southern Federal University, Taganrog
Experimental studies of attenuations in a quantum communication channel using media converters
73. BLINOV I.Yu., RAKOV A.A., KHATYREV N.P.
All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleev, Moscow region
Mathematical modeling of correlation processing of pseudo-random signals in a laser rangefinder
74. GREISUKH G.I., EZHOV E.G., ZAKHAROV O.A., KAZIN S.V.
Penza State University of Architecture and Construction
Effect of side diffraction orders on imaging quality produced by a refractive-diffractive middle wave infrared optical system
75. MIROSHNIKOVA N.E., TITOVETS P.A., LIPATKIN V.I., KULESHOV A.N.
Moscow Technical University of Communications and Informatics
Experimental study of underwater optical wireless communication link
76. ROMASHKO R.V., KULCHIN Yu.N., STOROZHENKO D.V., BEZRUK M.N.
Institute of Automation and Control Processes of FEB RAS, Vladivostok
Vector-phase fiber-optic hydroacoustic system
77. EPIKHIN V.M., KARNAUSHKIN P.V.¹, RYABININ A.V., MAZUR M.M., MAZUR L.I.
All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleev, Moscow region
¹*Perm National Research State University*
Fiber pigtailed acoustooptical modulators – frequency shifters
78. OBYDENNOV D.V.^{1,2}, YUSHKOV K.B.¹, MOLCHANOV V.Ya.¹
¹*National University of Science and Technology "MISIS", Moscow*
²*Lomonosov Moscow State University*
Design of an optical trap with annular potential

POSTERS 4

Friday, January 29, 2021, 16.00

Meeting 9

Friday, January 29, 2021, 17.00

79. BYKOVSKY A.Yu.
Lebedev Physical Institute of the RAS, Moscow
Data redundancy in multiple-valued logic model of a network agent
80. PAVLOV A.V.
ITMO University, Saint Petersburg
Modeling of decision making by holographic technique: nonlinearity of holograms recording plays a major role

81. PETROVA E.K., STARIKOV R.S., ZLOKAZOV E.Yu.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Experiments on correlation recognition of images obtained by the from arbitrary sources
82. KRAISKII A.V., MIRONOVA T.V.
Lebedev Physical Institute of the RAS, Moscow
Estimation of pore ordering of photonic crystal surface
83. GUROV I.P., VOLYNSKY M.A., MARGARYANTS N.B., PIMENOV A.Yu.
ITMO University, Saint Petersburg
Dynamic evaluation of 3D object structure using optical coherence tomography in asynchronous scan mode
84. KOZHEVNIKOVA A.M.¹, IVANKOV A.S.¹, ALEKSEENKO I.V.^{1,2}, SHITZ D.V.¹
¹Immanuel Kant Baltic Federal University, Kaliningrad
²Institute for Laser Technology in Medicine and Measurement Technique, Ulm, Germany
Digital holographic interferometry for non-thermal plasma puls analysis
85. SOKOLOV P.P., VORZOBOVA N.D.
ITMO University, Saint Petersburg
Diffraction elements for holographic solar concentrators
86. ISMAIL R., PISKUNOV D.E.
Bauman Moscow State Technical University
Variosystem based on tunable-focus lenses
87. KALININA A.A.¹, PUTILIN A.N.
Lebedev Physical Institute of the RAS, Moscow
¹Moscow Institute of Physics and Technology (State University), Dolgoprudny
Wedge lightguide in imaging systems
88. SHISHOVA M.V., ODINOKOV S.B., ZHERDEV A.Yu., LUSHNIKOV D.S., MARKIN V.V.
Bauman Moscow State Technical University
Recording of multiplex Bragg gratings using phase mask for augmented reality displays

Posters Section 1

Thursday, January 28, 2021, 12.00

89. FAZALOVA E.K., KOCHUNOV K.V., BODYAGO E.V., KONOPLEV G.A., MUKHIN N.V., SOKOLOVA I.M., CHIGIREV D.A., ZIMINOV A.V.¹, RUDAYA L.I.¹, LEBEDEVA G.K.²
Saint-Petersburg State Electrotechnical University "LETI"
¹Saint-Petersburg State Institute of Technology (Technical University)
²Institute of Macromolecular Compounds of the RAS, Saint-Petersburg
Investigation of optical and photoelectric properties of poly (o-hydroxyamide) sensitized by phthalocyanine as a perspective material for solar cells
90. SMIRNOV A.P., GORYAEV M.A., NEMTSEV A.I.
Herzen State Pedagogical University of Russia, Saint Petersburg
Dye sensitization ways of silver stearate – silver bromide structure
91. KOPEV P.S., KOMAROVA O.S., LENTOVSKII V.V., FEDOROV D.L.
Baltic State Technical University «VOENMEH» named after D.F. Ustinov, Saint-Petersburg
Influence of disordered structure of A₂B₆ solid solutions semiconductors on excitonic properties
92. EL-SAYED M.A.^{1,2}, DOROSHINA N.V.¹, NOVIKOV S.M.¹, VYSHNEVYY A.A.¹, ARSENIN A.V.¹, VOLKOV V.S.¹
¹Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
²Menoufia University, Shebin El-Koom, Egypt
Study of CVD molybdenum disulfide Van der Waals heterostructures based on Raman spectroscopy
93. KULJPINA E.V., BABKINA A.N., ZYRYANOVA K.S.
ITMO University, Saint Petersburg
Investigation of lithium effect on the luminescent properties of chromium-doped borate glass-ceramics
94. OVECHENKO D.S., BOYCHENKO A.P.
Kuban State University, Krasnodar
Electrical control formation of metal oxides by their electroluminescence
95. MAKURIN A.A., KOLOBKOVA E.V.
ITMO University, Saint-Petersburg
Investigation of the spectral-luminescent properties of cesium perovskite in fluorine-phosphate glass
96. DOROSHINA N.V., STRELETSKIY O.A.¹, SYCHEV V.V.², NEMTSOV A.B., MIRONOV M.S., VORONOV A.A., ARSENIN A.V., VOLKOV V.S., NOVIKOV S.M.
Moscow Institute of Physics and Technology (State University), Dolgoprudny
¹Lomonosov Moscow State University
²Lebedev Physical Institute of the RAS, Moscow
Ion-beam method for creating silver nanostructures for sensor applications
97. VOITSEKHOVSKII A.V.¹, NESMELOV S.N.¹, DZYADUKH S.M.¹, DVORETSKY S.A.^{1,2}, MIKHAILOV N.N.², SIDOROV G.Yu.²
¹National Research Tomsk State University
²Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk
Dark currents of barrier structures based on mercury cadmium telluride for mid-wave and long-wave infrared detectors
98. KOLCHIN A.V., ZABOTNOV S.V., ORLOV D.V., SHULEIKO D.V., GOLOVAN L.A., PRESNOV D.E., LAZARENKO P.I.¹, KOZYUKHIN S.A.², KUNKEL T.S.³, KASHKAROV P.K.
Lomonosov Moscow State University
¹National Research University of Electronic Technology "MIET", Zelenograd
²Kurnakov Institute of General and Inorganic Chemistry of the RAS, Moscow
³Moscow Institute of Physics and Technology (State University), Dolgoprudny
Femtosecond multipulse laser structuring of amorphous Ge₂Sb₂Te₅ thin films on dielectric substrates
99. AIMUKHANOV A.K., ROZHKOVA X.S., ZEINIDENOV A.K.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Effect of alcoholic solvent on the morphology of PEDOT:PSS films during annealing in vacuum

100. KAZAKOV V.A., KOKSHINA A.V., RAZINA A.G.
Chuvash State University named after I.N. Ulyanov, Cheboksary
Study of optical properties of carbon films in SP, SP², SP³-hybridized state during thermal annealing
101. AIMUKHANOV A.K., OMARBEKOVA G.I., KAMBAR D.S.
Karaganda State University of the name of academician E.A. Buketov, Kazakhstan
Research of the phase states of CoPc and H₂Pc nanoribbons
102. BULYGA D.V.¹, EVSTROPIEV S.K.^{1,2,3}, KUZMENKO N.K.¹
¹*ITMO University, Saint-Petersburg*
²*S.I. Vavilov State Optical Institute, Saint-Petersburg*
³*Saint-Petersburg State Technological Institute (Technical University)*
Polymer-salt synthesis of yttrium-aluminium garnet nanocrystals, doped with ytterbium ions
103. SOKOLOVA D.A.^{1,2}, KATSABA A.V.^{1,2}, AMBROZEVICH S.A.^{1,2,3}, DAIBAGYA D.S.³, OSADCHENKO A.V.³, ZAKHARCHUK I.A.³
¹*Lebedev Physical Institute of the RAS, Moscow*
²*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
³*Bauman Moscow State Technical University*
Cascade excited electronic states in CdSe nanoplatelets
104. GRANIZO E.A.¹, KRIVENKOV V.A.¹, NABIEV I.R.^{1,2}
¹*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
²*University of Reims Champagne-Ardenne, France*
Fluorescence enhancement of single quantum dot in PMMA film near silver nanoprism
105. KATSABA A.V.^{1,2}, SOKOLOVA D.A.^{1,2}, AMBROZEVICH S.A.^{1,2,3}, VASILIEV R.B.⁴, DAIBAGYA D.S.³, OSADCHENKO A.V.³, ZAKHARCHUK I.A.³
¹*Lebedev Physical Institute of the RAS, Moscow*
²*Moscow Institute of Physics and Technology (National Research University), Dolgoprudny*
³*Bauman Moscow State Technical University*
⁴*Lomonosov Moscow State University*
Luminescence photodegradation in colloidal CdS/ZnSe quantum dots
106. VOITSEKHOVSKI A.V.¹, NESMELOV S.N.¹, DZYADUKH S.M.¹, GORN D.I.¹, DVORETSKY S.A.^{1,2}, MIKHAILOV N.N.^{1,2}
¹*National Research Tomsk State University*
²*Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk*
Admittance of MIS devices based on mercury cadmium telluride with single quantum wells of mercury telluride in the active region
107. GAZIZOV A.R.^{1,2}, KHARITONOV A.V.¹, 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*
Plasmon-enhanced stimulated Raman scattering on the surface of metallic film
108. DAIBAGYA D.S.¹, OSADCHENKO A.V.¹, ZAKHARCHUK I.A.¹, SELYUKOV A.S.^{1,2,3}, SOKOLOVA D.A.^{2,4}, DANILKIN M.I.²
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*
Problems of optical emptying of traps in Li₂B₄O₇:Mn with a transport barrier for holes
109. OSADCHENKO A.V.¹, DAIBAGYA D.S.¹, ZAKHARCHUK I.A.¹, SELYUKOV A.S.^{1,2,3}, SOKOLOVA D.A.^{2,4}, DANILKIN M.I.²
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*
Radiation damage of Li₂B₄O₇:Zn+Mn and Li₂B₄O₇:Be+Mn under combined exposure to electron beam and laser radiation
110. DEVITSKY O.V.^{1,2}, SYSOEV I.A.²
¹*North Caucasian Federal University, Stavropol*
²*Federal Research Center Southern Scientific Center of the RAS, Rostov-on-Don*
Pulse laser deposition of InGaAsP/Si heterostructures
111. ZAKHARCHUK I.A.¹, OSADCHENKO A.V.¹, DAIBAGYA D.S.¹, SELYUKOV A.S.^{1,2,3}, SOKOLOVA D.A.^{2,4}, DANILKIN M.I.², ELISEEV S.P.^{2,4}, GRAFOVA V.P.⁵, KLIMONSKY S.O.⁵, VASILIEV R.B.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*Lomonosov Moscow State University*
Variations in the photoluminescence decays for CdSe nanoplatelets and nanoscrolls in a photonic crystal
112. KORDEYRO MAGRINO D.A.¹, KORSHUNOV V.M.^{1,2}, AMBROZEVICH S.A.^{1,2,3}, TAIDAKOV I.V.
¹*Bauman Moscow State Technical University*
²*Lebedev Physical Institute of the RAS, Moscow*
³*Moscow Institute of Physics and Technology (State University), Dolgoprudny*
Influence of charge transfer states from ligand to metal on the efficiency of luminescence sensitization of europium ion (III) in the coordination compounds of europium ion (III)
113. BIKBAEV R.G.^{1,2}, RUDAKOVA N.V.^{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 of Tamm plasmon-polaritons and modes of two-dimensional nanostructured media
114. KRUCHININ N.Yu., KUCHERENKO M.G., RUSINOV A.P., NALBANDYAN V.M.
Orenburg State University
Conformational rearrangements of polymer environment of plasmon nanoparticle in microwave electric field
115. DEMISHKEVICH E.A., ZYUBIN A.Yu., KHANKAEV A.A., ARTAMONOV D.A., SAMUSEV I.G.
Immanuel Kant Baltic Federal University, Kaliningrad
Synthesis of monodisperse platinum nanoparticles by femtosecond laser ablation
116. CHMEREVA T.M., KUCHERENKO M.G., MUSHIN F.Yu.
Orenburg State University
Nonlinear reflection of light from a monolayer of plasmon nanoparticles

117. ILYINSKY A.V., CASTRO R.A.¹, PASHKEVICH M.E.², POPOVA I.O.¹, SHADRIN E.B.
loffe Physical-Technical Institute of the RAS, Saint-Petersburg
¹Herzen State Pedagogical University of Russia, Saint-Petersburg
²Peter the Great Saint-Petersburg Polytechnic University
Ellipsometry of hysteresis phenomena by insulator-metal phase transition in VO₂ films
118. GORBATOVA A.V., BURYAKOV A.M., IVANOV M.S.
MIREA – Russian Technological University, Moscow
The ferroelectric-paraelectric phase transition in a novel organic magnetoelectric complex based on the YbZn compound
119. BIKBAEV R.G.^{1,2}, VETROV S.Ya.^{2,1}, TIMOFEEV I.V.^{1,2}, SHABANOV V.F.^{1,2}
¹Kirensky Institute of Physics of SB RAS, Krasnoyarsk
²Siberian Federal University, Krasnoyarsk
Tamm plasmon polariton for light trapping in organic solar cells
120. LIVASHVILI A.I., VINOGRADOVA P.V., KRISHTOP V.V.¹, MANGULA I.S., KIREEVA N.M.
Far Eastern State Transport University, Khabarovsk
¹Perm Scientific-Industrial Instrument Making Company
Simulation of radiated energy absorption processes by a nanofluid in a solar collector
121. GORBATOVA A.V., BURYAKOV A.M., MISHINA E.D.
MIREA – Russian Technological University, Moscow
Calculation of the efficiency of the photodetectors based on two-dimensional semiconductors with plasmon amplification
122. ZHELTIKOV V.A., HYDYROVA S., VASILIEV D.D., MOISEEV K.M.
Bauman Moscow State Technical University
Comparison of waveguide materials for quantum optical integrated circuits

Posters Section 2

Thursday, January 28, 2021, 16.00

123. MANDOUR M.M.¹, ASTASHKEVICH S.A.¹, KUDRYAVTSEV A.A.^{1,2}
¹Saint-Petersburg State University
²Harbin Institute of Technology, China
Photo-EMF in a single- and two-chamber photoplasma cells in a Na-Ar mixture
124. MANDOUR M.M.¹, ASTASHKEVICH S.A.¹, KUDRYAVTSEV A.A.^{1,2}
¹Saint-Petersburg State University
²Harbin Institute of Technology, China
Generation of photo-EMF in a photoplasma cell containing different sodium-noble gas mixtures
125. HOPERSKY A.N., NADOLINSKY A.M., KONEEV R.V., ANDREEVA O.B.
Rostov State Transport University, Rostov-on-Don
Splitting of a photon in the field of an atomic ion
126. SKORKIN V.M.
Institute for Nuclear Research of the RAS, Moscow
Photon distribution in DNA-Au nanocomposite during electron channeling
127. HOPERSKY A.N., NADOLINSKY A.M., KONEEV R.V.
Rostov State Transport University, Rostov-on-Don
On the polarization of bremsstrahlung radiation in resonant Compton scattering of a photon by an atom
128. VIKTOROV E.A.¹, PASTOR A.A.¹, SERDOBINTSEV P.Yu.¹, BEZUGLOV N.N.^{1,2,3}, MICULIS K.^{3,4}, RYABTSEV I.I.²
¹Saint-Petersburg State University
²Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk
³University of Latvia, Riga
⁴National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Oscillations of photocurrent signals upon photoionization of polarized Ar and Xe atoms in magnetic fields
129. PICHKURENKO S.V., FILATOV V.V.
Bauman Moscow State Technical University
Stimulated gravitational wave generation in the resonant solid microcavity
130. KOZHEVNIKOV V.A., PRIVALOV V.E.
Peter the Great Saint-Petersburg Polytechnic University
Output power of He-Ne laser with tube of elliptical cross section
131. ALEKSEEV E.E., ANDRONOVA N.M.¹, KAZANTSEV S.Yu.^{1,2}
National Research Centre "Kurchatov Institute", Moscow
¹Moscow Technical University of Communications and Informatics
The threshold of parasitic transversal generation in Fe: ZnSe disk lasers with inhomogeneous distribution of the dopant
132. SEDOVA Yu.K.^{1,2}, MINAEVA S.A.², MINAEV N.V.², MINAEVA E.D.^{1,2}, IVANOVSKAYA E.V.³, DEMINA T.S.⁴
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
³Mendeleev University of Chemical Technology of Russia, Moscow
⁴Enikolopov Institute of Synthetic Polymer Materials of the RAS, Moscow
Study of the distribution of hydroxyapatite nanoparticles within polymeric microparticles by the method of Raman spectroscopy
133. ALEKSEENKO N.A., KOVALENKO M.N., MARKOVA L.V., ZAJOGIN A.P.
Belarusian State University, Minsk
Processes of formation of nanodisperse Al₂O₃ powders with carbon in a DC electric arc
134. BAZZAL Kh., ALEKSEENKO N.A., VOROPAY E.S., KOVALENKO M.N., PATAPOVICH M.P., ZAJOGIN A.P.
Belarusian State University, Minsk
Processes of formation of Al₂O₃ nanopowders when aluminum is exposed to a series of double laser pulses in the air
135. BAZZAL Kh., ALEKSEENKO N.A., VOROPAY E.S., KOVALENKO M.N., TRINH N.H., ZAJOGIN A.P.
Belarusian State University, Minsk
Processes of formation of oxydezed aluminum nanopowders when aluminum is exposed to a short series of double laser pulses in the air
136. SHKURATOVA V.A., KOSTYUK G.K., SERGEEV M.M.
ITMO University, Saint-Petersburg
Fabrication of birefringent phase plate by laser-induced microplasma for generating vector beams

137. IONIN A.A.², KINYAEVSKIY I.O.², KLIMACHEV Yu.M.², KOMAROV D.A.^{1,2}, KOZLOV A.Yu.², RULEV O.A.², SINITSYN D.V.²
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Lebedev Physical Institute of the RAS, Moscow
Intracavity sum frequency generation of RF-discharge CO laser in nonlinear crystal ZnGeP₂
138. ZHELEZNOV V.Yu., MALINSKIY T.V., MIKOLUTSKIY S.I., ROGALIN V.E., KHOMICH Yu.V., FILIN S.A., 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
Laser etching of bronze by exposure to powerful ultraviolet pulses
139. GERASIMOVA Yu.A.^{1,2}, GRUDTSYN Ya.V.², KINYAEVSKIY I.O.², KORIBUT A.V.², ROGASHEVSKII A.A.²
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Lebedev Physical Institute of the RAS, Moscow
The formation of spectra for difference frequency generation to the mid-infrared range
140. KAZANTSEV S.Yu.^{1,2}, TITOVETS P.A.¹, SATTAROVA A.I.¹
¹Moscow Technical University of Communications and Informatics
²Moscow Polytechnic University
Transmission characteristics of hybrid antennas with laser control
141. SREDIN V.G., SAKHAROV M.V.¹, KONRADI D.S., KUZNETSOV I.V.
Peter the Great Military Academy of Strategic Rocket Forces, Balashikha
¹12 Central Research Institute of Defence Ministry, Sergiev Posad
Numerical simulation of thermal fields in matrix IR photodetectors in the laser radiation field
142. BOROVYKH S.V., MITYUREVA A.A., SMIRNOV V.V.
Saint Petersburg State University
Diffraction pattern degradation driven by intense ultrafast X-ray pulse for H²⁺
143. VARLAMOY P.V., SAMOKHVALOV A.A., IZMAILOV D.V.
ITMO University, Saint-Petersburg
Study of silicon carbide ablation by laser-plasma method
144. GAVRISH S.V., KUGUSHEV D.N., PUGACHEV D.Yu., PUCHNINA S.V.
Scientific and Production Enterprise «Melitta», Moscow
Modification of the optical properties of doped quartz envelopes of pulsed lamps under the influence of xenon plasma radiation
145. MATVEEVA K.I., ZOZULIA A.S., OGNEDYUK A.A., ZYUBIN A.Yu., SAMUSEV I.G.
Immanuel Kant Baltic Federal University, Kaliningrad
Variation of the optical properties of plasmon structures for the purposes of photodynamic therapy
146. MASLOVA G.T., TITOVA A.V., ZAJOGIN A.P., PATAPOVICH M.P.
Belarusian State University, Minsk
Morphostructural analysis and laser atomic emission spectrometry of plasma droplet facies in the diagnosis of brain tumors
147. ROSHCINA N.V., KONOPLEV G.A., STEPANOVA O.S., KUZNETSOV A.I.¹, FRORIP A.¹, KORSAKOV V.¹, ZEMCHENKOV G.A.²
Saint-Petersburg State Electrotechnical University "LETI"
¹LDIAMON AS, Tartu, Estonia
²Nevsky Nephrology Center, Saint-Petersburg
Optoelectronic system for the monitoring of middle molecular weight uremic markers elimination during hemodialysis
148. BASKO E.A.¹, MAKAROV V.I.^{1,2}, KASHTANOVA M.S.³, MOROZOVA N.S.³, LOSCHENOV V.B.^{1,2}
¹National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
²Prokhorov General Physics Institute of the RAS, Moscow
³Sechenov First Moscow State Medical University
Spectral estimation of the level of oxygenation and blood filling in periodontal tissues
149. NECHIPURENKO N.I.¹, PROKOPENKO T.A.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 morphology and laems of dried blood plasma drops in the diagnosis of patients with de of the brain
150. ROGOZHNIKOV G.S., LYUBYNSKAYA T.E.
All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region
Development of invasive low-traumatic optical biopsy complex
151. POLETAEV D.A., SOKOLENKO B.V.
V.I. Vernadsky Crimean Federal University, Simferopol
Possibility of COVID-19 virions' photoactivation
152. AKMALOV A.E., KOTKOVSKII G.E., KUZICHIN Yu.A., MARTYNOV I.L., OSIPOV E.V., CHISTYAKOV A.A., TKACHUK A.P.¹, VERDIEV B.I.¹, ALATYREV A.G.¹
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
¹National Research Center for Epidemiology and Microbiology named after the honorary academician N.F. Gamaleya, Moscow
Application of the photon counting mode in real-time flow cytometry of bioaerosols in air
153. VANYUSHIN M.V., NOSOV P.A., ZININ P.V.¹
Bauman Moscow State Technical University
¹Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
Definition of the resonance frequencies of biological micro-objects through modeling of elastic properties
154. SOSNOVA N.S., VASILIEVA A.V., PARFENOV V.A.
Saint-Petersburg State Electrotechnical University "LETI"
X-ray fluorescence spectroscopy for determining the chemical composition of pigments from the XVI - XIX century Russian icons

Posters 3

Friday, January 29, 2021, 12.00

155. PERIN A.S., BODRENIN V.E., SHCHUKIN A.V.
Tomsk State University of Control Systems and Radioelectronics
Study of attenuation of optical radiation with a wavelength of 850 nm in a channel optical waveguide based on lithium niobate
156. GALUTSKIY V.V., PONETAeva I.G., PUZANOVSKIY K.V., STROGANOVA E.V.
Kuban State University, Krasnodar
Spectrokinetic studies of LiNbO₃: Er ceramics on LiNbO₃ substrates

157. KOSTRITSKII S.M., KORKISHKO Yu.N., FEDOROV V.A., SEVOSTYANOV O.G.¹, CHIRKOVA I.M.¹
RPC Optolink Ltd, Zelenograd
¹*Kemerovo State University*
Dependence of properties of proton-exchanged waveguides on stoichiometric composition of LiNbO₃ crystals
158. 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 Kola Science Center of the RAS, Apatity, Murmansk region*
Optical uniformity of LiNbO₃:B³⁺ crystals (0.55 - 1.24 mol. %)
159. GALUTSKIY V.V., STROGANOVA E.V., SHMARGILOV S.A., YARMAK P.A.
Kuban State University, Krasnodar
Influence of lithium gradient on the efficiency of conversion with PPLN
160. PILYAK F.S.¹, KULIKOV A.G.¹, FRIDKIN V.M.¹, PISAREVSKII Yu.V.^{1,2}, MARCHENKOV N.V.^{2,1}, BLAGOV A.E.^{2,1}, KOVALCHUK M.V.^{2,1}
¹*Shubnikov Institute of Crystallography of FSRC «Crystallography and Photonics» of the RAS, Moscow*
²*National Research Centre "Kurchatov Institute", Moscow*
Discovery and study of the bulk piezo-photovoltaic effect in iron-doped lithium niobate crystals
161. PUZANOVSKIY K.V., SHEKOVY V.E., STROGANOVA E.V.
Kuban State University, Krasnodar
Preparation of LiNbO₃ ceramics samples with organic inclusions using terahertz emission
162. PEREVOSHCHIKOV D.A.¹, KALUGIN A.I., ANTONOV E.A.
Udmurt Federal Research Center of UB RAS, Izhevsk
¹*JCS «IRZ TEST», Izhevsk*
The effect of hydrostatic compression on the electronic structure of the InSb crystal
163. ZHURIN T.A., KISTENEVA M.G., SHANDAROV S.M., DYU V.G., KARGIN Yu.F.¹
Tomsk State University of Control Systems and Radioelectronics
¹*Baikov Institute of Metallurgy and Material Sciences of the RAS, Moscow*
Numerical simulation of the differential parameters of transmission spectra of Bi₁₂TiO₂₀:Ca,Ga
164. KROL I.M., BARINOVA O.P., ZYKOVA M.P., PETROVA O.B.
Mendeleev University of Chemical Technology of Russia, Moscow
Study of absorption spectra in visible and IR range of cobalt-containing zinc borosilicate glass material
165. BOGACHKOV I.V., STARKOV A.S.
Omsk State Technical University
Improvement of devices for predicting the state of optical fibers
166. LUTSENKO A.S.^{1,2}, RAKHMATULLINA A.R.^{1,2}, GRACHEV N.A.²
¹*Perm National Research Polytechnic University*
²*Perm Scientific-Industrial Instrument Making Company*
Research of the reproducibility parameter of interrogator for quasi-distributed sensor
167. BOGACHKOV I.V., STARKOV A.S., DYSHLEVSKIY V.A.
Omsk State Technical University
Research of the influence of optical fiber bends on reflectograms
168. BOGACHKOV I.V., TYULENEV A.S.
Omsk State Technical University
A program for automated processing of Brillouin reflectograms of optical fibers
169. BOGACHKOV I.V., DYSHLEVSKIY V.A.
Omsk State Technical University
Improvement of algorithms for determining the optical fiber strain in Brillouin reflectometers
170. TARASOV S.A.¹, RADZIEVSKAYA T.A.^{1,2}, IVANOV N.N.³
¹*Saint-Petersburg State Electrotechnical University "LETI"*
²*JSC «NITI «Avangard», Saint-Petersburg*
³*Bonch-Bruевич Saint-Petersburg State University of Telecommunications*
Technological methods to reducing scattering losses in polymeric planar optical waveguides
171. BOGACHKOV I.V., HOMCHENKO A.V.
Omsk State Technical University
Development of the program to study the polarization losses influences on the received signal intensity
172. KOTLIKOV E.N., LAVROVSKAYA N.P., TROPIN A.N.¹
Saint-Petersburg State University of Aerospace Instrumentation
¹*JSC "Research Institute Girikond", Saint-Petersburg*
Metal-dielectric interference filters for flame sensors
173. NIKITIN V.A., SERDYUKOV V.V., YAKOVENKO N.A.
Kuban State University, Krasnodar
Development and fabrication of 1 × 8 buried splitters in glass substrates
174. KOSYREV A.V.¹, RUZHITSKAYA D.D.¹, KOROLENKO P.V.^{1,2}, RYZHIKOVA Yu.V.¹
Lomonosov Moscow State University
Stability analysis of dendritic type system characteristics
175. SARAFANNIKOVA A.V.¹, GARIFULLIN A.I.¹, GAINUTDINOV R.Kh.^{1,2}
¹*Kazan Federal University, Kazan*
²*Institute of Perspective Researches of Tatarstan Academy of Sciences, Kazan*
Calculation of one-dimensional photonic crystal band structure using the plane waves method and the propagation matrix method
176. MININ I.V., MININ O.V.
National Research Tomsk Polytechnic University
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177. GOSHEV A.A., ESEEV M.K., MAKAROV D.N.
Northern Arctic Federal University named after M.V. Lomonosov, Arkhangelsk
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178. KHALYAPIN V.A.^{1,2}, BUGAY A.N.³
¹*Kaliningrad State Technical University*
²*Immanuel Kant Baltic Federal University, Kaliningrad*
³*Joint Institute of Nuclear Researches, Dubna*
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Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
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Fryazino Branch of Kotelnikov Institute of Radioengineering and Electronics of RAS
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V.I. Vernadsky Crimean Federal University, Simferopol
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¹*Moscow State Pedagogical University*
²*National Research University Higher School of Economics, Moscow*
³*Zavoisky Physical-Technical Institute, FRC Kazan Scientific Center of the RAS*
⁴*Lebedev Physical Institute of the RAS, Moscow*
⁵*JCS «QRate», Skolkovo, Moscow region*
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183. BULATOV K.M.¹, KHRAMOV N.A., NOSOV P.A., ZININ P.V.¹
Bauman Moscow State Technical University
¹*Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow*
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Molecular Electronics Research Institute, Zelenograd
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All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleevo, Moscow region
Gravimeter on the optical whispering gallery mode resonators
190. ANDREEV S.N.¹, KAZANTSEV S.Yu.^{1,2}, MUZYCHKA A.Yu.¹
¹*Moscow Polytechnic University*
²*Moscow Technical University of Communications and Informatics*
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191. DENISOV D.G., ZOLOTUKHINA A.A., KUDRYASHOV A.V.¹, NIKITIN A.N.¹
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¹*Institute of Geosphere Dynamics of the RAS, Moscow*
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193. ZAGORULKO K.A.¹, VOSKANOV M.L.¹, KOZLOV A.V.^{1,2}, KHATYREV N.P.¹
¹*All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleevo, Moscow region*
²*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)*
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194. ZLOKAZOV E.Yu., NEBAVSKIY V.A., STARIKOV R.S., CHEREMKHIN P.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
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V.I. Vernadsky Crimean Federal University, Simferopol
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National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
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199. BUSURIN V.I., SHTEK S.G.¹, ZHEGLOV M.A.¹, KOROBKOV K.A., KOSHEVAROVA N.A.
Moscow Aviation Institute (National Research University)
¹*State Research Institute of Instrument Making, Moscow*
Faults analysis of the compensation acceleration transducer with differential optical reading

200. EFIMOV T.A., DATS E.P.¹, RASSOLOV E.A., MALOKHATKO S.V.²
Institute of Automation and Control Processes of FEB RAS, Vladivostok
¹*Institute for Applied Mathematics FEB RAS, Vladivostok*
²*Southern Federal University, Taganrog*
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201. BUSURIN V.I.¹, VASETSKIY S.O.^{1,2}, SHTEK S.G.², ZHEGLOV M.A.²
¹*Moscow Aviation Institute (National Research University)*
²*State Research Institute of Instrument Making, Moscow*
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Peoples' Friendship University of Russia (RUDN University), Moscow
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National Research University "Moscow Power Engineering Institute"
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Institute of Automation and Control Processes of FEB RAS, Vladivostok
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209. DENISOV D.G.
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210. MAKSIMOVA L.A.¹, PATRUSHEV B.A.², MYSINA N.Yu.¹, RYABUKHO V.P.^{1,2}
¹*Institute of Precision Mechanics and Control of the RAS, Saratov*
²*National Research Saratov State University named after N.G Chernyshevsky*
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Y. Kupala Grodno State University, Belarus
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Kyrgyz State University of Construction, Transport and Architecture named after N. Isanov, Bishkek, Kyrgyz Republic
¹*Institute of Physics of NAS KR, Bishkek, Kyrgyz Republic*
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213. BUT A.I., LYALIKOV A.M.
Y. Kupala Grodno State University, Belarus
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Tomsk State University of Control Systems and Radioelectronics
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Omsk State Technical University
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¹*Shubnikov Institute of Crystallography of FSRC «Crystallography and Photonics» of the RAS, Moscow*
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Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
¹*Peter the Great Saint-Petersburg Polytechnic University*
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219. PEN E.F.
Institute of Automation and Electrometry SB RAS, Novosibirsk
Effective energy of holographic recording taking into account dark polymerization
220. DZHAMANKYZOV N.K., ISMANOV Yu.H., ZHUMALIEV K.M.
Institute of Physics of NAS KR, Bishkek, Kyrgyz Republic
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221. AVLASEVICH N.T., LYALIKOV A.M.
Janka Kupala State University, Grodno, Belarus
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225. TSIPLAKOVA E.G.¹, KULYA M.S.¹, SOKOLENKO B.V.¹, GORODETSKY A.A.^{1,2}, PETROV N.V.¹
¹*ITMO University, Saint-Petersburg*
²*University of Birmingham, United Kingdom*
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226. NIKITSIONAK V.I., VETOKHIN S.S.¹, SAECHNIKOV V.A., SVIRIDOV A.A.
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