CONFERENCE OPENING. PLENARY

Wednesday, January 26, 2022, 9.00

1. DRACHEV V.P.
   Skolkovo Institute of Science and Technology
   Volume plasmon-polaritons in hyperbolic media
2. 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
   [1]Novosibirsk State University
   [2]Samara National Research University
   Periodically poled ferroelectric crystals and thin films for light frequency convertion and diffraction optical elements
3. FRADKIN I.M.[1,2], DYAKOV S.A.[1], GIPPIUS N.A.[1]
   [1]Skolkovo Institute of Science and Technology
   [2]Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
   Homogenization of Mie-resonant metamaterials
4. ZIMNYAKOV D.A.[1,2], VOLCHKOV S.S.[1], KOCHKUROV L.A.[1], DOROGOV A.F.[1], TSYIPIN D.V.[1]
   [1]Yury Gagarin State Technical University, Saratov
   [2]Institute of Precision Mechanics and Control of the RAS, Saratov
   Stimulated fluorescence under laser pumping of random media: fundamental limitations due to coherence of a pumping light

PLENARY 2

Wednesday, January 26, 2022, 12.00

5. GABITOV I.R.[1 2], GIBNEY J.[1], KUK I.A.[2]
   [1]University of Arizona, Tucson, USA
   [2]Skolkovo Institute of Science and Technology
   Machine learning and information transmission in nonlinear coherent systems
6. KATKOVNIK V.Ya., SHEVKUNOV I.A., EGIAZARIAN K.O.
   Tampere University of Technology, Finland
   Computational imaging with encoded diffractive optics
7. GONCHAROV D.S.[1 2], STARIKOV R.S.[1]
   [1]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
   [2]MTS Artificial Intelligence, Moscow
   Coherent optical-digital image correlators with neural network processing of output signals
8. KOMPANETS I.N.
   Lebedev Physical Institute of the RAS, Moscow
   N.G. Basov and the LPI quantum radiophysics laboratory (division)

Meeting 1

Wednesday, January 26, 2022, 14.00

9. SLUSSARENKO S.S., MELNIKOVA E.A., TOLSTIK A.L., LUCCHETTI L.[1], SIMONI F.S.A.[1]
   Belarusian State University, Minsk
   [1]Marche Polytechnic University, Ancona, Italy
   Photovoltaic effect in LCD cells doped with methyl red
10. BAKLANOVA K.D[1,2], DOLGANOV P.V.[1], DOLGANOV V.K.[1]
    [1]Institute of Solid State Physics named after Yu.A. Osipyan of the RAS, Chernogolovka
    [2]National Research University «Higher School of Economics», Moscow
    Periodic structures in liquid-crystalline photonic crystals
11. KLISHIN Yu.A., YAKUBOVSKY D.I., TATMYSHEVSKIY M.K., ARSENIN A.V., GHAZARYAN D.A., VOLKOV V.S.
    Moscow Institute of Physics and Technology (State University), Dolgoprudny
    Stability of thin crystals $CoPS_3$
12. SIDOROVA O.V., KADETOVA A.V.[1], PALATNIKOV M.N.[1]
    Petrozavodsk State University
    [1]I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC Kola Science Center of the RAS, Apatity, Murmansk region
    Defective structure of $LiNbO_3$:Zn crystals grown by direct and homogeneous alloying methods
13. KORIBUT A.V., KINYAEVSKIY I.O., KOVALEV V.I., DANILOV P.A., SMIRNOV N.A., KUDRYASHOV S.I., DUNAEVA E.E.[1], IONIN A.A.
    Lebedev Physical Institute of the RAS, Moscow
    [1]Prokhorov General Physics Institute of the RAS, Moscow
    Influence of an interaction geometry on efficiency of transient stimulated Raman scattering in $BaWO_4$ crystal
14. DOROFEEVA E.V.[1,2], MANUYLOVICH I.S.[1], MESHKOV M.N., SIDORYUK O.E.
    [1]POLYUS Research Institute of M.F. Stelmah Joint Stock Company, Moscow
    [2]Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry of the RAS, Moscow
    [3]Moscow Institute of Physics and Technology (State University), Dolgoprudny
    Angular anisotropy of light scattering by the surfaces of KTP crystals and its use in crystallographic orientation of nonlinear optical elements

15. AMANOVA M.A., NAUNYKA V.N.[1], MAKAREVICH A.V.[1], SHEPELEVICH V.V.[1]
Institute of Telecommunications and Informatics of Turkmenistan, Ashgabat
[1]Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
Application of covariant methods to determine nonzero components of flexoelectric tensors in crystals symmetry class 23
16. SAVCHENKOV E.N., SHANDAROV S.M., DUBIKOV A.V., KUZMICH D.E., FEDYANINA M.A., GUBINSKAYA D.A., SHUR V.Ya.[1], AKHMATKHANOV A.R.[1], CHUVAKOVA M.A.[1]
Tomsk State University of Control Systems and Radioelectronics
[1]Ural State University, Ekaterinburg
Light beam diffraction on regular domain structures in lithium tantalate
17. VOROBYEV A.K.[1], OSTAPIV A.Yu.[1], GRISHCHENKO I.V.[1,2], KONYASHKIN A.V.[2], RYABUSHKIN O.A.[2]
[1]Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
[2]Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Optical absorption and scattering measurements in lithium triborate and lithium niobate nonlinear optical crystals
18. BEGICHEV I.V.[1,2], KLISHIN Yu.A.[1], TOKSUMAKOV A.N., ERMOLAEV G.A.[1], YAKUBOVSKY D.I.[1], ARSENIN A.V.[1], GHAZARYAN D.A.[1], VOLKOV V.S.[1]
[1]Moscow Institute of Physics and Technology (State University), Dolgoprudny
[2]Skolkovo Institute of Science and Technology
[3]N.M. Emanuel Institute of Biochemical Physics of the RAS, Moscow
Spectral ellipsometry of atomically thin crystals
19. KUPREYCHIK M.I., BALAKSHY V.I., MANTSEVICH S.N.
Lomonosov Moscow State University
Low-selective regimes of isotropic light scattering in a biaxial indium iodide crystal
20. SLINKOV G.D.[1,2], YUSHKOV K.B.[1]
[1]National University of Science and Technology «MISIS», Moscow
[2]Lomonosov Moscow State University
Angular dispersion analysis of an acousto-optic deflector

Meeting 2

Wednesday, January 26, 2022, 17.00

21. KRIVENKOV V.A.[1,2], SAMOKHVALOV P.S.[2], RAKOVICH Yu.P.[1,3], VASIL'EVSKII I.S.[2], KARGIN N.I.[2], NABIEV I.R.[2,4]
[1]Basque University, San Sebastian, Spain
[2]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
[3]Basque Foundation for Science, Bilbao, Spain
[4]University of Reims Champagne-Ardenne, France
Nonlinear plasmon-exciton interaction improves two-photon properties of quantum dots
22. KOSOLAPOVA K.D., VEDERNIKOVA A.A., AREFINA I.A., USHAKOVA E.V.
ITMO University, Saint-Petersburg
Energy structure studies of carbon dots electron transitions depending on the type of functional groups at the surface
23. SYUY A.V., TSELIKOV G.I., PANOVA D.A., ARSENIN A.V., VOLKOV V.S.
Moscow Institute of Physics and Technology (State University), Dolgoprudny
Photoluminescent properties OF ZnS based nanoparticles
24. KARMAZIN L.I., KORSHUNOV V.M.[1], METLIN M.T.[1], TAIDAKOV I.V.[1]
Bauman Moscow State Technical University
[1]Lebedev Physical Institute of the RAS, Moscow
The investigation of novel coordination compounds of lanthanide ions photophysical properties in the infrared range
25. OSKOLKOVA T.O., KOLESOVA E.P., ORLOVA A.O.
ITMO University, Saint-Petersburg
Electronic excitation energy transfer in CdSe/ZnS quantum dots aggregates
26. VOSKANYAN G.R., GRITSYENKO A.V.[1], MATVEEV A.T.[2], KUROCHKIN N.S.[1], ELISEEV S.P.[1,3], VITUKHNOVSKY A.G.[1,3]
Bauman Moscow State Technical University
[1]Lebedev Physical Institute of the RAS, Moscow
[2]National University of Science and Technology «MISIS», Moscow
[3]Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
Single photons generation in defects of hexagonal boron nitride nanocrystals
27. PAUKOV M.I., BUDNIKOV A.A.[1], GOLDT A.E.[2], KOMANDIN G.A.[3], SYUY A.V., YAKUBOVSKY D.I., NASIBULIN A.G.[2], BURDANOVA M.G.
Moscow Institute of Physics and Technology (State University), Dolgoprudny
[1]Bauman Moscow State Technical University
[2]Skolkovo Institute of Science and Technology
[3]Prokhorov General Physics Institute of the RAS, Moscow
Comparative characteristics of optical properties of nanotubes based on carbon and tungsten disulfide
28. POPOV V.S.[1,2], LAVRENTYEV N.A.[1,2], MIROFYANCHENKO A.E.[1], MIROFYANCHENKO E.V.[1], PONOMARENKO V.P.[1,2]
[1]State Research Center «Orion», Moscow
[2]Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
Bismuth tellurite 2D nanostructured materials for photonics
29. YAKUBOVSKY D.I., ARSENIN A.V., KIRTAEV R.V., MIRONOV M.S., KLISHIN Yu.A., DOROSHINA N.V., NOVIKOV S.M., VOLKOV V.S.
Moscow Institute of Physics and Technology (State University), Dolgoprudny
Scanning near-field optical microscopy of ultra-thin metal films on 2D-layers of MoS_2
30. MARGARYAN I.V., BABAEV A.A., LITVIN A.P.
ITMO University, Saint-Petersburg
Perovskite film functionalization with carbon dots

31. GARIFULLIN A.I.[1], GAINUTDINOV R.Kh.[1,2], KHAMADEEV M.A.[1,2]
[1]Kazan Federal University, Kazan
[2]Intitute of Applied Research of Tatarstan Academy of Sciences, Kazan
Quantum electrodynamic effects in photonic crystals and controllability of frequencies of photons emitted by a quantum dot
32. YURCHENKO D.A.[1], EVSTROPIEV S.K.[2,3,4], SHASHKIN A.V.[3], DUKELSKY K.V.[3,4,5], KNYAZYAN N.B.[6], MANUKYAN G.G.[6], STOLYAROVA V.L.[1,7]
[1]Grebenshchikov Institute of Silicate Chemistry of the RAS, Saint-Petersburg
[2]Saint-Petersburg State Institute of Technology (Technical University)
[3]S.I. Vavilov State Optical Institute, Saint-Petersburg
[4]ITMO University, Saint-Petersburg
[5]Bonch-Bruevich Saint-Petersburg State University of Telecommunications
[6]Institute of General and Inorganic Chemistry of NAS of Armenia, Yerevan
[7]Saint-Petersburg State University
Spectral properties of Eu-containing glass ceramics BaO-Al_2O_3-SiO_2-MgF_2

Meeting 3

Thursday, January 27, 2022, 9.00

33. ZHIGARKOV V.S., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Physical aspects of laser-induced living cell transfer in gel microdroplets
34. LVOV K.V.[1], STREMOUKHOV S.Yu.[1,2], POTEMKIN F.V.[1]
[1]Lomonosov Moscow State University
[2]National Research Center «Kurchatov Institute», Moscow
Dynamics of free carriers in bulk of silicon under the action of femtosecond laser radiation
35. TRIFONOVA A.V., RYAMBOV R.V.
National Research Tomsk State University
Resonator-free laser generation in solutions of an organic dye with nanoparticles at excitation by nano- and femtosecond laser pulses
36. AFANASIEV N.A., MOSKVIN M.K., PROKOFIEV E.V., ODINTSOVA G.V.
ITMO University, Saint-Petersburg
Influence of ellipticity of laser radiation polarization on variation of the orientation angle of laser-induced surface periodic structures
37. FRANK A.D.[1,2], ZHIGARKOV V.S.[2], CHEPTCOV V.S.[1,3], MINAEV N.V.[2], YUSUPOV V.I.[2]
[1]Lomonosov Moscow State University
[2]Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
[3]Space Research Institute of the RAS, Moscow
Eukaryotic microorganisms laser induced transfer in gel microdroplets
38. EGOROVA X.A., KOZINA A., PEREPELKINA S.Yu., SINEV D.A.
ITMO University, Saint-Petersburg
Wear resistance control of titanium alloys by additive laser treatment
39. BELOV K.N.[1], DEMINA L.I.[1], ZHEREBTSOV D.A.[2], IVANOV M.G.[2], KUNDIKOVA N.D.[1,2]
[1]South Ural State University, Chelyabinsk
[2]Institute of Electrophysics, UB RAN, Ekaterinburg
Study of the microstructure of laser ceramics Yb:Yag, Yb:LUAG, Pr:LuAG – possibilities of methods
40. PROKOFIEV E.V., AFANASIEV N.A., MOSKVIN M.K.
ITMO University, Saint-Petersburg
Formation of dynamic visual effects using laser structuring of metal surfaces
41. CHERNYKH E.A.[1], KHARINCEV S.S.[1,2]
[1]Kazan Federal University
[2]Intitute of Applied Research of Tatarstan Academy of Sciences, Kazan
Determination of the local glass transition temperature of a thin polymer film using a thermoplasmon metasurface
42. SAPARINA S.V.[1], KHARINCEV S.S.[1,2]
[1]Kazan Federal University
[2]Intitute of Applied Research of Tatarstan Academy of Sciences, Kazan
Nanospectroscopic analysis of amorphous carbon films via electro-assisted tip-enhanced Raman scattering method
43. MINAEVA E.D.[1,2], ANTOSHIN A.A.[2,3], MINAEV N.V.[2]
[1]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
[2]Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
[3]Sechenov First Moscow State Medical University
Study of laser-induced forward transfer process of living cell cultural aggregates – spheroids
44. KONTSEVAYA V.G., KULIKOV K.G.[1], EGOROVA O.A.[2]
Pskov State University
[1]Peter the Great Saint-Petersburg Polytechnic University
[2]Emperor Alexander I Saint-Petersburg State Transport University
Determination of the spectral characteristics of light scattering on a group of biological particles of various shapes and structures

POSTERS 1

Thursday, January 27, 2022, 12.00

Meeting 4

Thursday, January 27, 2022, 13.00

45. VOKHNIK O.M.[1], KOROLENKO P.V.[1,2]
[1]Lomonosov Moscow State University
[2]Lebedev Physical Institute of the RAS, Moscow
Specific features of the radiation interaction with matter in an analytical resonator of a laser spectrometer
46. GALKIN M.L.[1,2], LONSHAKOV E.A.[1], MINKOV K.N.[1], DANILIN A.N.[1,3], BILENKO I.A.[1,3]
[1]Russian Quantum Center, Skolkovo
[2]Skolkovo Institute of Science and Technology
[3]Lomonosov Moscow State University
Study of the spectral characteristics of a diode laser self-injection locked to an external resonator with whispering gallery modes
47. GORBUNKOV M.V., ERMAKOV V.S.[1], MASLOVA Yu.Ya., SHABALIN Yu.V.
Lebedev Physical Institute of the RAS, Moscow
[1]Bauman Moscow State Technical University
Dynamics of a solid-state laser controlled by dual electro-optical feedback in the harmonic mode locking regime
48. IBRAGIMOV A.A., SHOROKHOV A.S.
Lomonosov Moscow State University
Light modulation by semiconductor metasurfaces via electric injection of free carriers
49. SMIRNOV V.N., SEMERIKOV I.A., ZALIVAKO I.V., BORISENKO A.S., AKSENOV M.D., SIDOROV P.L., SEMENIN N.V., ZHURAVLEV I.A., KHABAROVA K.Yu., KOLACHEVSKY N.N.
Lebedev Physical Institute of the RAS, Moscow
Ground state cooling of 171Yb ion via quadrupole transition
50. LYKOV I.I.[1,2], SHITIKOV A.E.[2], DANILIN A.N.[2,3], LOBANOV V.E.[2], BILENKO I.A. [2,3]
[1]Moscow Institute of Physics and Technology (State University), Dolgoprudny
[2]Russian Quantum Center, Skolkovo
[3]Lomonosov Moscow State University
Measurements of ultra-low speed using self-injection locked laser
51. RYMKEVICH V.S., BOLOSHKO A.A.
ITMO University, Saint-Petersburg
Nanosecond pulses application in laser-induced microplasma glass treatment
52. SHCHEKIN A.S.[1,2], ZHANABAEVA A.K.[1], PETROVSKIY V.N.[1]
[1]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
[2]IRE-Polus Corporation, Fryazino
Method of calculating the contact angle of wetting with direct laser structuring by nanosecond pulsed
53. DOLGOPOLOV A.D., GRESKO V.R., ZHESTKY N.A., SERGEEV M.M., MIKHAILOVA Yu.V., GUNINA E.V.
ITMO University, Saint-Petersburg
Laser recording of periodic micro- and nanostructures on the surface of thin films
54. SAVEL'EV E.A.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Dependence of the lossy mode resonance sensitivity on the refractive index of the optical fiber coating
55. GORELOV I.K.[1], MKRTCHAN A.A.[2], GLADUSH Yu.G.[2], SHITIKOV A.E.[1], LOBANOV V.E.[1], BILENKO I.A.[1,3]
[1]Russian Quantum Center, Skolkovo
[2]Skolkovo Institute of Science and Technology
[3]Lomonosov Moscow State University
Measurements of ultra-low speed using self-injection locked laser
56. MALYSHEV O.K., KHARINOEVA T.A., MARTYNOV I.L., CHISTYAKOV A.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Features of simulation the reflection spectra of porous silicon photonic crystals in the visible spectral range

POSTERS 2

Thursday, January 27, 2022, 16.00

Meeting 5

Thursday, January 27, 2022, 17.00

57. PROKHOROV A.V.[1,2], VOLKOV V.S.[2], EVLYUKHIN A.B.[3]
[1]Vladimir State University named after Alexander and Nikolay Stoletovs
[2]Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
[3]Leibniz University, Hannover, Germany
Photon bound states in metasurfaces based on nanoparticles fabricated from dichalcogenides of transition metal
58. BIKBAEV R.G.[1,2], PYKHTIN D.A.[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
Plasmonics arrays to improve the absorption of the Tamm plasmon polariton based solar cell
59. KOPYLOV D.A., RASPUTNYI A.V.
Lomonosov Moscow State University
Study of biphoton generation by spontaneous parametric down conversion with cascaded up-conversion

60. AVDEEVA A.Yu.[1], BIKBAEV R.G.[1,2], VETROV S.Ya.[2,1], TIMOFEEV I.V.[1,2]
[1]Kirensky Institute of Physics SB RAS, Krasnoyarsk
[2]Siberian Federal University, Krasnoyarsk
Splitting a Tamm plasmon polariton at the interface between a metal and an anisotropic nanocomposite layer conjugated with a photonic crystal
61. CHMEREVA T.M., KUCHERENKO M.G., MUSHIN F.Yu.
Orenburg State University
Quenching of electronic excitations of a quantum dot by a plasmonic shell nanoparticle
62. SHOUTOVA O.A., TRUSHIN S.M.
Lomonosov Moscow State University
Generation of harmonics by atomic gases at the focus of doughnut-modes of laser fields
63. SHIROKOVA A.V., MASLOV A.V., BAKUNOV M.I.
Lobachevsky State University of Nizhny Novgorod
Adiabatic evolution of electromagnetic waves in a nonstationary medium made of oscillators
64. SHISHKOV G.M., GRIGORIEV K.S., MAKAROV V.A.
Lomonosov Moscow State University
Polarization singularities in the self-focusing of an elliptically polarized light in liquid crystals
65. IVAKHNIK V.V., KAPIZOV D.R., NIKONOV V.I.
Samara National Research University
Quality of wavefront reversal for four-wave interaction in a multimode waveguide with thermal nonlinearity
66. KURNIKOV M.A., SHIROKOVA A.V., MASLOV A.V., BAKUNOV M.I.
Lobachevsky State University of Nizhny Novgorod
Dispersive effects during wave transformation at the temporal boundary
67. AKIMOV A.A., GUZAIROV S.A., IVAKHNIK V.V.
Samara National Research University
Four-wave radiation converter on thermal nonlinearity with feedback on signal or object waves
68. BELINSKY A.V., SINGH R.
Lomonosov Moscow State University
On the possibility of analysis of quantum polarization characteristics of light in the forming of quantum ghost images in the process of counterpropagating four-wave mixing

Meeting 6

Friday, January 28, 2022, 9.00

69. POPOV S.M., BUTOV O.V.[1], LI XIA[2], ZHUOYING WANG[2], CHAMOROVSKIY Yu.K.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
[1]Kotel'nikov Institute of Radioengineering and Electronics of RAS, Moscow
[2]Huazhong University of Science and Technology, Wuhan, China
Distributed sensing demodulation technology based on dense identical FBG array with large multiplexing capacity
70. SALNIKOV N.I.[1,2], DOROFEEV V.V.[1,3], KOSOLAPOV A.F.[4], ANDRIANOV A.V.[1], ANASHKINA E.A.[1,2]
[1]Institute of Applied Physics of the RAS, Nizhny Novgorod
[2]Lobachevsky State University of Nizhny Novgorod
[3]Devyatykh Institute of Chemistry of High-Purity Substances of the RAS, Nizhny Novgorod
[4]Dianov Fiber Optic Research Center of the GPI RAS, Moscow
Dispersion and nonlinear optical characteristics of microstructured tellurite polarization-maintaining fiber
71. RYAKHOVSKIY D.V., POPOV S.M., ISAEV V.A., KOLOSOVSKIY A.O., VOLOSHIN V.V., VOROB'EV I.L., CHAMOROVSKIY Yu.K.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Optical loss of metal coated microstructured optical fibers
72. GILEV D.G.[1,3], KRISHTOP V.V.[1,2,3]
[1]Perm State University
[2]Perm National Research Polytechnic University
[3]Perm Scientific-Industrial Instrument Making Company
Determination of the dependence of the induced birefringence on the bending radius by the position of side resonant peaks
73. SUDAS D.P., SAVELYEV E.A., YAKUSHCHEVA G.G., KUZNETZOV P.I.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Optical fiber refractometer coated with tin dioxide for measuring the parameters of concentrated acids
74. PAROCHKIN A.V., BUSHUNOV A.A.
Bauman Moscow State Technical University
Antireflection microstructures on depressed cladding buried waveguide lasers
75. BORODINA L.N., BORISOV V.N., ANNAS K.I., DUBAVIK A.Yu., VENIAMINOV A.V., ORLOVA A.O.
ITMO University, Saint-Petersburg
Laser microscopy of photoinduced structures of quantum dots
76. MELNIKOV A.N.
Scientific and Production Association «State Institute of Applied Optics», Kazan
A new approach to the problem of fabrication of toroidal diffraction gratings
77. DENISOV D.G., KARASSIK V.E., AZAROVA V.V.[1,2]
Bauman Moscow State Technical University
[1]POLYUS Research Institute of M.F. Stelmakh Joint Stock Company, Moscow
[2]Moscow Institute of Physics and Technology (State University), Dolgoprudny
The study of specific features of scattering of laser radiation on grinded and polished optical surfaces
78. US N.A., AVERSHIN A.A., MURAVLEV M.V.
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A Gagarin, Voronezh
Optical covering for the external resonator splitter

79. AZAROVA V.V.[1,2], ISHCHENKO P.I.[1], KULAGIN A.V.[1], OGLOBLIN M.S.[1], FOKIN V.V.[1], CHERTOVICH I.V.[1]
[1]POLYUS Research Institute of M.F. Stelmah Joint Stock Company, Moscow
[2]Moscow Institute of Physics and Technology (State University), Dolgoprudny
Features of obtaining highly reflective interference laser mirrors
80. KRASNOV D.I., DRUZHIN V.V.
Bauman Moscow State Technical University
Analysis of positioning error of convex hyperboloid mirror tested with diffractive corrector

POSTERS 3

Friday, January 28, 2022, 12.00

Meeting 7

Friday, January 28, 2022, 13.00

81. ZOTOV A.M.[1], KOROLENKO P.V.[1,2], KUBANOV R.T.[1]
[1]Lomonosov Moscow State University
[2]Lebedev Physical Institute of the RAS, Moscow
Algorithms of generation and properties of fractal speckle fields
82. DAVLETSHIN N.N.[1,2], IKONNIKOV D.A.[1], SUTORMIN V.S.[1,2], BARON F.A.[1], VYUNISHEV A.M.[1,2]
[1]Kirensky Institute of Physics of SB RAS, Krasnoyarsk
[2]Siberian Federal University, Krasnoyarsk
Formation of speckle structures for ghost imaging by using a nematic liquid crystal cell
83. ISMAGILOV A.O., LEIBOV L.S., ZALIPAEV V.V., NASEDKIN B.A., GRACHEV Ya., PETROV N.V., TCYPKIN A.N.
ITMO University, Saint-Petersburg
Speckle patterns formed by broadband terahertz radiation and their applications for ghost imaging
84. BYCHKOVA S.A.[1,2], MAMRASHEV A.A.[2], MINAKOV F.A.[2], MAKSIMOV L.V.[2], NIKOLAEV N.A.[2]
[1]Novosibirsk State Technical University
[2]Institute of Automation and Electrometry SB RAS, Novosibirsk
Polarization terahertz spectroscopy
85. TSIPLAKOVA E.G.[1], PETROV N.V.[1], PERRAUD J.-B.[1], CHOPARD A.[1,2], GUILLET J.-P.[1], SMOLYANSKAYA O.A., MOUNAIX P.[1]
ITMO University, Saint-Petersburg
[1]University of Bordeaux, France
[2]Lytid SAS, Paris, France
Optimized iterative phase retrieval algorithms in application to terahertz frequency range
86. 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
Study of the trapping efficiency of a ring optical trap based on an acousto-optic tunable filter
87. SABIROV T.N., MINNEGALIEV M.M., GERASIMOV K.I., MOISEEV S.A.
Kazan Quantum Center of Kazan National Research Technical University named after A.N. Tupolev – KAI
Implementation of optical quantum memory protocol in $^{167}Er^{3+}$:Y_2SiO_5 crystal
88. YAKUBOV S.I., SOKOLENKO B.V., SHOSTKA N.V., POLETAEV D.A.
V.I. Vernadsky Crimean Federal University, Simferopol
Profilometry of optically transparent objects using interfering singular beams
89. PROKOPOVA D.V., SAMAGIN S.A., KOTOVA S.P.
Samara Branch of the Lebedev Physical Institute of the RAS
Formation of the rotating light fields with two expressed maximums in the distribution of intensity using combined two-sectional optical elements
90. BURTSEV A.A., IONIN V.V., KISELEV A.V., ELISEEV N.N., MIKHALEVSKY V.A., LOTIN A.A.
Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
Optical neuromorphic systems elements based on phase-change materials
91. IKONNIKOV D.A.[1], FOKIN V.A.[1,2], VYUNISHEV A.M.[1,2]
[1]Kirensky Institute of Physics of SB RAS, Krasnoyarsk
[2]Siberian Federal University, Krasnoyarsk
Producing complex arrays of optical vortices using binary phase holograms
92. KUZMIN N.A.[1,2], ARAPOV Yu.D.[1]
[1]N.L. Dukhov All-Russian Research Institute of Automatics, Moscow
[2]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Threshold particles concentration in multi-dispersed media holographic restoration

POSTERS 4

Friday, January 28, 2022, 16.00

Meeting 8

Friday, January 28, 2022, 17.00

93. PAVLOV A.V., GAUGEL A.O.
ITMO University, Saint-Petersburg
Modeling of decision making by Fourier-holography technique: a role of filtration
94. KALININA A.A.[1], PUTILIN A.N.
Lebedev Physical Institute of the RAS, Moscow
[1]Moscow Institute of Physics and Technology (State University), Dolgoprudny
Optical system of air glasses based on combination of holograms
95. AFANASEVA O.L.
Bauman Moscow State Technical University
Holographic collimator sight based on a waveguide
96. PUTILIN N.A.[2], DUBYNIN S.E.[1,3], PUTILIN A.N.[1], KOPENKIN S.S.[1], BORODIN Yu.P.[1]
[1]Lebedev Physical Institute of the RAS, Moscow
[2]Moscow State University of Geodesy and Cartography «MIIGAiK»
[3]Samsung Research Center, Moscow
Distortion of recording and reconstruction of holographic beam-combiners for augmented reality displays
97. BELASHOV A.V., ZHIKHOREVA A.A., BELTYUKOVA D.M., LITVINOV I.K.[1], SALOVA A.V.[1], BELYAEVA T.N.[1], KORNILOVA E.S.[1], SEMENOVA I.V., VASUTINSKII O.S.
Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
[1]Institute of Cytology of the RAS, Saint-Petersburg
Analysis of intracellular radachlorin accumulation using the combination of fluorescence and holographic microscopes
98. KRAISKII A.V., MIRONOVA T.V.
Lebedev Physical Institute of the RAS, Moscow
Determination of object shift with submicronal accuracy using a digital camera
99. POROYKOV A.Yu., MARCHENKOV A.Yu., SHARIKOVA M.O.[1], KHOKHLOV D.D.[1]
National Research University «Moscow Power Engineering Institute»
[1]Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
Optical diagnostics of deformations of railway transport elements
100. PINAEV Z.A., VOLYNSKY M.A.
ITMO University, Saint-Petersburg
Research of methods for matching dense voxel data for optical tomography problems
101. VASILYEV S.V., BOGOSLOVSKIY A.V., ZHIGULINA I.V., DERBUSH D.A.
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A Gagarin, Voronezh
Detecting the movement of line objects in two-dimensional images
102. VOLYNSKY M.A.[1], GENDIN V.G.[1], GLADKOVA E.S.[2], GUROV I.P.[1], MARGARYANTS N.B.[1], SIRRO S.V.[1,2], SKAKOV P.S.[1]
[1]ITMO University, Saint-Petersburg
[2]State Russian Museum, Saint-Petersburg
Applying the optical coherence tomography for visualization of icon painting objects with layered-inhomogeneous microstructure
103. MALASHIN D.O., KOSHELEV A.V.
Production Association Ural Optical and Mechanical Plant named after E.S. Yalamov, Saint-Petersburg
Advanced neuromorphic methods of video information processing in modern optical-electronic aircraft systems
104. EVTIKHIEV N.N., RYMOV D.A., STARIKOV R.S., CHEREMKHIN P.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Neural network enabled hologram reconstruction

Posters 1
Thursday, January 27, 2022, 12.00

105. GORYAEV M.A.
Herzen State Pedagogical University of Russia, Saint-Petersburg
Dye influence on the photovoltaic properties of the silicon n-p structure
106. BULYGA D.V.[1], EVSTROPIEV S.K.[1,2,3], MORKOVSKII A.D., PASHIN S.S.
Povolzhsky State University of Telecommunication and Informatics, Samara
[1]ITMO University, Saint-Petersburg
[2]S.I. Vavilov State Optical Institute, Saint-Petersburg
[3]Saint-Petersburg State Technological Institute (Technical University)
Research of developed light-absorbing optical composites based on epoxy polymers
107. GUSKOV A.A., LAVROV S.D.
MIREA – Russian Technological University, Moscow
Sensitivity enhancement of two-dimensional WSe_2-based photodetectors by ordered Ag plasmonic nanotriangles
108. KRUCHININ N.Yu., KUCHERENKO M.G.
Orenburg State University
Electrically induced changes in the conformations of polyampholytes on the surface of an elongated plasmonic nanospheroid
109. RIDER M.A., BOLSHAKOV A.D.[1], KONDRATEV V.M.[1], KUZNETSOV A.S.[1], ZAKHAROV V.V., ORLOVA A.O.
ITMO University, Saint-Petersburg
[1]Saint-Petersburg National Research Academic University named after Zh.I. Alferov of the RAS
Hybrid structures based on GaP nanocrystals and carbon dots
110. BUKHAROV D.N., ARAKELIAN S.M.
Vladimir State University named after Alexander and Nikolay Stoletovs

Modeling of the optical properties of Ag/Au nanocluster system

111. LEBEDEVA E.D., LAVROV S.D.
MIREA – Russian Technological University, Moscow
Modeling of optical absorption in quasi-two-dimensional transition metal dichalcogenides heterostructures

112. PIMENOV N.Yu., AVDIZHIYAN A.Yu., LAVROV S.D., LEBEDEVA E.D.
MIREA – Russian Technological University, Moscow
Modeling the band structure of solid solutions of two-dimensional transition metal dichalcogenides

113. BARANOV M.A., KOLESOVA E.P., DUBAVIK A.Yu., ORLOVA A.O.
ITMO University, Saint-Petersburg
Influence of a zinc sulfide shell on the optical properties of AIS/TiO_2 nanocomposites

114. SEISEMBEKOVA T.E., BOKANOV A.A., AIMUKHANOV A.K., ZEINIDENOV A.K., ILYASSOV B.R.[1]
Buketov Karaganda University, Kazakhstan
[1]Astana IT University, Nur-Sultan. Kazakhstan
Investigation of optical properties of ZnO thin films of different thickness

115. GAVRUSHKO V.V., LASTKIN V.A.[1], KADRIEV O.R.
Yaroslav-the-Wise Novgorod State University
[1]OJSK «Planeta-OKB», Veliky Novgorod
Optical properties of polycrystalline silicon films

116. VANIN A.I.[1], PUCHKOV N.I.[1], SOLOVYEV V.G.[1,2], KHANIN S.D.[2], TSVETKOV A.V.[1], YANIKOV M.V.[1]
[1]Pskov State University
[2]S.M. Budyonny Military Academy of the Signal Corps, Saint-Petersburg
On the possibility of using ellipsometry in investigations of optical properties of metal-dielectric structures based on opals

117. SEREGIN A.A.[1], CHERNYSHEVA O.V.[1], SHELYAKOV A.V.[1], SITNIKOV N.N.[1,2], BORODAKO K.A.[1], VELIGZHANIN A.A.[3], SUNDEEV R.V.[4]
[1]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
[2]Keldysh Research Center, Moscow
[3]National Research Center «Kurchatov Institute» Moscow
[4]National University of Science and Technology «MISIS», Moscow
EXAFS-spectroscopy of rapidly quenched $Ti_{50}Ni_{20}Cu_{30}$ shape memory alloys

118. KANAPINA A.E., AFANASYEV D.A.
Buketov Karaganda University, Kazakhstan
Lowering the threshold for the generation of an ethanol solution of a cationic polymethine dye in the presence of silver nanoparticles

119. MOUSSAOUI A.[1], BULYGA D.V.[1], KUZMENKO N.K.[1], EVSTROPIEV S.K.[1,2,3], SADOVNIVHII R.V.[2], NIKONOROV N.V.[1]
[1]ITMO University, Saint-Petersburg
[2]S.I. Vavilov State Optical Institute, Saint-Petersburg
[3]Saint-Petersburg State Technological Institute (Technical University)
Synthesis of nanocrystalline YAG:RE powders via Pechini method using polyvinylpyrrolidone

120. ROZHKOVA X.S., AIMUKHANOV A.K., ILYASSOV B.R.[1], TUNGUSHBAEVA D.N.
Buketov Karaganda University, Kazakhstan
[1]Astana IT University, Nur-Sultan. Kazakhstan
Effect of alcoholic solvent on the optical characteristics of PEDOT: PSS films

121. OMARBEKOVA G.I., AIMUKHANOV A.K., ILYASSOV B.R.[1], NAZHIMHAN A.T.
Buketov Karaganda University, Kazakhstan
[1]Astana IT University, Nur-Sultan. Kazakhstan
Effect of annealing temperature on morphological properties of In_2O_3 films obtained by thermal evaporation method in vacuum

122. GAZIZOV A.R.[1,2], SALAKHOV M.Kh.[1,2], KHARINCEV S.S.[1,2]
[1]Kazan Federal University
[2]Intitute of Applied Research of Tatarstan Academy of Sciences, Kazan
Selective opto-plasmonic enhancement of anti-stokes Raman scattering in graphene oxide thin films

123. SELIVERSTOVA E.V., IBRAYEV N.Kh.
Buketov Karaganda University, Kazakhstan
Influence of the ablation time on the properties of nanodots based on reduced graphene oxide

124. VALITOVA A.F.[1,2], GAZIZOV A.R.[1,2], SALAKHOV M.Kh.[1,2]
[1]Kazan Federal University
[2]Intitute of Applied Research of Tatarstan Academy of Sciences, Kazan
Dispersion relations of plasmon modes on a continuous gold hexagonal metasurfaces

125. OSADCHENKO A.V.[1,2], DAIBAGYA D.S.[1,2], ZAKHARCHUK I.A.[1,2], AMBROZEVICH S.A.[1,2] SELYUKOV A.S.[1,2,3], VOLODIN N.Yu.[4], CHEPTSOV D.A.[4], DOLOTOV S.M.[4], TRAVEN V.F.[4]
[1]Bauman Moscow State Technical University
[2]Lebedev Physical Institute of the RAS, Moscow
[3]Moscow Polytechnic University
[4]Mendeleev University of Chemical Technology of Russia, Moscow
Luminescence of novel coumarin derivatives

126. MOUSSAOUI A.[1], EVSTROPIEV S.K.[1,2,3], KUZMENKO N.K.[1], NIKONOROV N.V.[1], BULYGA D.V.[1], SADOVNIVHII R.V.[2], IGNATIEV A.I.[1]
[1]ITMO University, Saint-Petersburg
[2]S.I. Vavilov State Optical Institute, Saint-Petersburg
[3]Saint-Petersburg State Technological Institute (Technical University)
Modified Pechini method for synthesis of Gd_2O_3:Nd nanopowders

127. KONSTANTINOVA E.I.[1], SLEZHKIN V.A.[1,2], BRYUKHANOV V.V.[2]
[1]Kaliningrad State Technical University
[2]Immanuel Kant Baltic Federal University, Kaliningrad
Effect of scattering TiO_2 nanoparticles photoluminescence of polyvinyl butyral films with CdZnSeS/ZnS quantum dots and eosin molecules

128. DAIBAGYA D.S.[1,2], OSADCHENKO A.V.[1,2], ZAKHARCHUK I.A.[1,2], AMBROZEVICH S.A.[1,2], SELYUKOV A.S.[1,2,3], PEREPELITSA A.S.[4], SMIRNOV M.S.[4], OVCHINNIKOV O.V.[4]
[1]Bauman Moscow State Technical University
[2]Lebedev Physical Institute of the RAS, Moscow
[3]Moscow Polytechnic University
[4]Voronesh State University
Optical properties of colloidal Ag_2S quantum dots in external electric field

129. KROL I.M., BARINOVA O.P., ZYKOVA M.P.
Mendeleev University of Chemical Technology of Russia, Moscow
Influence of transition metal ions on the optical characteristics of zinc borosilicate glass of eutectic composition

130. STAMBOLYAN V.A., ASEEV V.A.
ITMO University, Saint-Petersburg
Study of the effect of additives on the luminescence spectra of Yb^{3+}/Er^{3+}-codoped germanate glasses

131. IBRAYEV N.Kh., SELIVERSTOVA E.V., ISHCHENKO A.A.[1]
Buketov Karaganda University, Kazakhstan
[1]Institute of Organic Chemistry of NAS of Ukraine, Kiev
Silver nanoparticle effect on spectral-luminescent properties of polymethines of various ionicity

132. RUSINOV A.P.
Orenburg State University
Interphase thermal relaxation of transient electron gas absorption in a plasmonic nanoparticle

133. KUCHERENKO M.G., NALBANDYAN V.M.
Orenburg State University
Emission spectra of a two-particle complex from a quantum dot and a composite nanoparticle with a metal core

134. GORBATOVA A.V., BURYAKOV A.M., IVANOV M.S., MISHINA E.D., LONG J.[1]
MIREA – Russian Technological University, Moscow
[1]Montpellier University, France
Nonlinear optical microscopy of molecular ferroelectrics

135. PEN'KOV S.A., PISKUNOV A.A.
Orenburg State University
Fluorescent properties of heterogeneous colloidal solutions of anthracene and Ag

136. KHARISOVA R.D., BABKINA A.N., ZYRYANOVA K.S.
ITMO University, Saint-Petersburg
Investigation of $CsPbI_3$ perovskite nanocrystals luminescent properties in borogermanate glasses

137. MOLCHANOVA A.D., BOLDYREV K.N., BEZMATERNYKH L.N.[1]
Institute for Spectroscopy of the RAS, Troitsk
[1]Kirensky Institute of Physics SB RAS, Krasnoyarsk
Optical spectroscopy of nonlinear $YAl_3(BO_3)_4$: Mn crystal

138. KULJPINA E.V., BABKINA A.N., ZYRYANOVA K.S.
ITMO University, Saint-Petersburg
Investigation of the spectral properties of Mn^{4+} in alkali-germanate glass-ceramics

139. KULJPINA E.V., BABKINA A.N., ZYRYANOVA K.S.
ITMO University, Saint-Petersburg
Manganese concentration effect on luminescent properties of lithium-zinc-germanate glass-ceramics

140. BUKHVOSTOV A.I., BABKINA A.N., KULJPINA E.V., ZYRYANOVA K.S.
ITMO University, Saint-Petersburg
Investigation of the influence of boron oxide concentration on the spectral properties of alkali-alumina-borate glass ceramics with chromium

141. KUZMIN N.N.[1,2,3], BOLDYREV K.N.[1], MALTSEV V.V.[3]
[1]Institute for Spectroscopy of the RAS, Troitsk
[2]Moscow Institute of Physics and Technology (National Research University), Dolgoprudny
[3]Lomonosov Moscow State University
Absorption spectra of terbium chrome borate with the structural type of huntite

142. PAVLIUK A.S., BABKINA A.N.
ITMO University, Saint-Petersburg
Study of the temperature effect on spectral properties of perovskite nanocrystals $CsPbBr_3$ in borogermanate glass

143. CHERNETSOVA I.A., KOLESOVA E.P., ORLOVA A.O.
ITMO University, Saint-Petersburg
Luminescent microscopy for estimating the luminescent properties of semiconductor quantum dots CdSe/ZnS

144. GUSHCHIN S.V., KUZNETSOV S.V.[1], LYAPIN A.A., PROYDAKOVA V.Yu.[1], RYABOCHKINA P.A., FEDOROV P.P.[1]
National Research Mordovian State University named after N.P. Ogarev, Saransk
[1]Prokhorov General Physics Institute of the RAS, Moscow
Investigation of upconversion luminescence of SrF_2:Er, Tm powders upon excitation laser radiation of $^4I_{13/2}$ level of Er^{3+} ions and $^3F_4$ level of Tm^{3+} ions

145. KARPACH P.V., VASILYUK G.T., BARACHEVSKI V.A.[1], AYT A.O.[1], MASKEVICH S.A.[2]
Janka Kupala State University, Grodno, Belarus
[1]Photochemistry Center of FSRC «Crystallography and Photonics» of the RAS, Moscow
[2]International Sakharov Environmental Institute of Belarusian State University, Minsk
Modeling of the parameters of photo-controlled luminescent nanoparticles

146. SARATOVSKII A.S.[1,2], EVSTROPIEV S.K.[1,3,4], VOLYNKIN V.M.[3], DUKELSKY K.V.[3,4,5]
[1]Saint-Petersburg State Institute of Technology (Technical University
[2]Grebenshchikov Institute of Silicate Chemistry of the RAS, Saint-Petersburg
[3]S.I. Vavilov State Optical Institute, Saint-Petersburg
[4]ITMO University, Saint-Petersburg
[5]Bonch-Bruevich Saint-Petersburg State University of Telecommunications
Investigation of the structure and spectral properties of solutions and composite coatings Ag/AgBr/$Zn(NO_3)_2$/PVP

147. GUSHCHIN M.G., VARTANYAN T.A., OKUNEV V.O.[1]
ITMO University, Saint-Petersburg
[1]Microsensor LLC, Saint-Petersburg
Influence of dielectric spacer layer imperfections on the sensitivity of a gas sensor based on multilayer structures with plasmon-induced transparency effect

148. ASTASHKEVICH S.A.[1], KUDRYAVTSEV A.A.[1,2]
[1]Saint-Petersburg State University
[2]Harbin Institute of Technology, China
Self-consistent determination of Cs-Ar resonance photoplasma parameters taking into account the collisional broadening of the D1 and D2 lines of Cs

149. HOPERSKY A.N., NADOLINSKY A.M., KONEEV R.V.
Rostov State Transport University, Rostov-on-Don
The effect of anisotropy of inelastic splitting of a photon by an atomic ion

150. MANDOUR M.M.[3], ASTASHKEVICH S.A.[1], KUDRYAVTSEV A.A.[1,2]
[1]Saint-Petersburg State University
[2]Harbin Institute of Technology, China
[3]Zagazig University, Egypt
Change in the sign of the photo-EMF of photoelectric converter due to competition between ambipolar and free diffusion of charges

151. KRUPSKAYA A.E., FILATOV V.V.
Bauman Moscow State Technical University
Quantum-induced beats in the gravitational spectrum of an atom

152. KHUSYAINOV D.I., OVCHARENKO S.V., GUSKOV A.A., BURYAKOV A.M.
MIREA – Russian Technological University, Moscow
Enhancement of terahertz generation in WSe_2/FeCo structure

153. AKMALOV A.E., KOZLOVSKII K.I., KOTKOVSKII G.E., KUZICHIN Yu.A., MAKSIMOV E.M., MARTYNOV I.L., OSIPOV E.V., PLEKHANOV A.A., CHISTYAKOV A.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Terahertz reflection spectra of organic substances located on various surfaces

154. AVDEEV P.Yu., KHUSYAINOV D.I., BURYAKOV A.M., BILYK V.R.
MIREA – Russian Technological University, Moscow
Effect of FeCo film thickness on generation of terahertz radiation

Posters 2
Thursday, January 27, 2022, 16.00

155. EPIFANOV E.O., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Features of focusing of a laser beam of laser ablation in supercritical carbon dioxide

156. ZHELEZNOV V.Yu., MALINSKIY T.V., ROGALIN V.E.
Institute for Electrophysics and Electric Power of the RAS, Saint-Petersburg
Modernization of the analog meter of laser radiation energy ILD-2M

157. DERMENZHI I.A., BARYSHNIKOVA S.Yu., KOCHUROVA D.N.[1], KALUGIN A.I.[1]
Kalashnikov Izhevsk State Technical University
[1]Udmurt Federal Research Center of UB RAS, Izhevsk
Measuring of laser radiation power reflected from lambert circular reflector

158. SHUBNIY A.G., EPIFANOV E.O., MINAEV N.V., YUSUPOV V.I.
Institute of Photonic Technologies of FSRC «Crystallography and Photonics» of the RAS, Troitsk
Efficiency of laser-induced backside wet microstructuring of sapphire with increased pressure

159. BORODINA L.N., VOVK I.A., PODGORNOV D.P., STEPANOVA M.S., ZAKHAROV V.V., DUBAVIK A.Yu., ORLOVA A.O., VENIAMINOV A.V.
ITMO University, Saint-Petersburg
Laser microscopy of magnetoluminescent carbon heteronanocomposites

160. KOVALENKO M.N., ALEKSEENKO N.A., MARKOVA L.V.[1], RUTKOVSKYA L.S., ZAJOGIN A.P.
Belarusian State University, Minsk
[1]Powder Metallurgy Institute, Minsk, Belarus
The processes of formation of precursor nanopowders for the production of $CuAlO_2$ copper aluminates under the influence of double laser pulses on AD1 and M2 alloys in the air atmosphere

161. KOVALENKO M.N., ALEKSEENKO N.A., MARKOVA L.V.[1], RUTKOVSKYA L.S., PATAPOVICH M.P., ZAJOGIN A.P.
Belarusian State University, Minsk
[1]Powder Metallurgy Institute, Minsk, Belarus
The processes of formation of precursor nanopowders for the production of $CuAl_2O_4$ spinels under the influence of double laser pulses on AD1 and M2 alloys in the air atmosphere

162. BAZZAL Kh., ALEKSEENKO N.A., VOROPAY E.S., KOVALENKO M.N., TRINH N.H., ZAJOGIN A.P.
Belarusian State University, Minsk
Studies of the formation of Al_2O_3 and Al nanopowders under the influence of defocused dual laser pulses on aluminum in the air atmosphere

163. MOROZOVA A.A., LUTOSHINA D.S., ANDREEVA Ya.M., ODINTSOVA G.V.
ITMO University, Saint-Petersburg
The wear resistance of the method of laser coloring of the silver surface by formation of plasmon nanoparticles

164. VEDENIN E.I., PRIVALOV V.E.[1], SHEMANIN V.G.
Novorossiysk Polytechnic Institute of Kuban State Technological University
[1]Peter the Great Saint-Petersburg Polytechnic University
Laser system of differential extinction for the aerosol particles average volume-surface diameter measurement

165. BEZRUKOV P.A.[1], SIVAK A.I.[1], NASHEKIN A.V.[2], SIDOROV A.I.[1,3], NIKONOROV N.V.[1]
[1]ITMO University, Saint-Petersburg
[2]Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
[3]Saint-Petersburg State Electrotechnical University «LETI»
Determination of the quantum efficiency of thin copper and silver nanoporous layers, synthesized by substitutional reaction for photocatalytic water splitting

166. VLASOV A.V., ZAPOTYLKO N.R., KATKOV A.A.
POLYUS Research Institute of M.F. Stelmakh Joint Stock Company, Moscow
Comparison of the sitall CO-115M produced INTO 1990-s and 2017-2021 for laser gyroscopes

167. YAKUSHEV A.I., ZAPOTYLKO N.R., KATKOV A.A., KAZANTSEVA A.Yu.
POLYUS Research Institute of M.F. Stelmakh Joint Stock Company, Moscow
The use of solders of increased rigidity in piezocorrectors of laser gyroscopes

168. DYACHENKO V.V., PRIVALOV V.E.[1], SHEMANIN V.G.
Novorossiysk Polytechnic Institute of Kuban State Technological University
[1]Peter the Great Saint-Petersburg Polytechnic University
Computer simulation of the lidar equation for the Raman scattering by carbon cycle molecules in the atmosphere

169. ANDREICHIKOV K.S., ASTAKHOV V.P., SOLOVIOVA G.S., CHEKANOVA G.V.
JSC «Moscow Plant «SAPHIR»
Resistant to shortwave irradiation planar indium antimonide photodiode crystal

170. ANDREICHIKOV K.S., ASTAKHOV V.P., FAZILOV D.E., FAZILOVA I.E., SHAEVICH V.I.
JSC «Moscow Plant «SAPHIR»
Resistance to static electricity features of planar indium antimonide photodiodes

171. PAVLOV V.I.[1,2], KHATYREV N.P.[1], KONDRATIEV N.M.[3]
[1]All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleevo, Moscow region
[2]Lomonosov Moscow State University
[3]Russian Quantum Center, Skolkovo
Application of the self-injection locked diode lasers for a laser cooling system of a rubidium fountain

172. SHKURATOVA V.A., KOSTYUK G.K., PETROV A.A.
ITMO University, Saint-Petersburg
Birefringent phase masks for laser beam shaping

173. GAVRISH S.V., KIREEV S.G., PUGACHEV D.Yu., SHASHKOVSKIY S.G.
Scientific and Production Enterprise «Melitta», Moscow
Xenon plasma radiation influence on the optical transmission of flash lamps' quartz shells

174. PAVLOV V.I.[1,2], KHATYREV N.P.[1]
[1]All-Russian Scientific Research Institute of Physical-Technical and Radiotechnical Measurements, Mendeleevo, Moscow region
[2]Lomonosov Moscow State University
Prospects for creation of equipment for satellite monitoring of greenhouse gases based on optical frequency combes

175. SUDAS D.P., SAVELYEV E.A., KUZNETZOV P.I., GOLANT K.M.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Effect of temperature on a silicon-coated Bi_2Te_3 Q-switch in a ring fiber laser

176. MURATOV D.A., NIKOLAEV N.E., CHEKHLOVA T.K.
Peoples' Friendship University of Russia (RUDN University), Moscow
Optical properties of composite media based on titanium dioxide with gold nanoparticles

177. SHISHKINA A.S., ZAKOLDAEV R.A., ANDREEVA O.V.
ITMO University, Saint-Petersburg
Direct laser writing of subtractive tracks inside porous silicate matrix

178. YANDYBAEVA Yu.I., ZAKOLDAEV R.A., ANDREEVA O.V.
ITMO University, Saint-Petersburg
Direct laser writing of impenetrable barriers inside nanoporous silicate matrix

179. YAKIMUK V.A., AL-SAIF Y., ZAKOLDAEV R.A., ANDREEVA O.V.
ITMO University, Saint-Petersburg
Direct laser writing of single-mode waveguides in porous silicate matrix

180. YAKUNIN V.P., GRISHAEV R.V., DERZHAVIN S.I.[1], KRAVCHENKO Ya.V.[1], MAMONOV D.N.[1]
Institute on Laser and Information Technologies – branch of FSRC "Crystallography and Photonics" of the RAS, Shatura
[1]Prokhorov General Physics Institute of the RAS, Moscow
Power scaling of a number of single distributed quantum cascade lasers with the using of mid-wave IR chalcogenide glass fibers

181. SHULGA A.V., SHILOVA I.V.
Belarusian-Russian University, Mogilev, Belarus
Excitation of TE-guided modes with intracavity laser radiation

182. ZUEVA M.M., NIKOLAEV N.E., CHEKHLOVA T.K.
Peoples' Friendship University of Russia (RUDN University), Moscow
Dispersion characteristics of thin-film optical waveguides with a step refractive index profile

183. GRISHAEV R.V., YAKUNIN V.P.
Institute on Laser and Information Technologies – branch of FSRC «Crystallography and Photonics» of the RAS, Shatura
Thermooptical distortions of laser beams in spectral beam combining system

184. ANIKEEVA V.E.[1,2], BOLDYREV K.N.[1], SEMENOVA O.I.[3], POPOVA M.N.[1]
[1]Institute for Spectroscopy of the RAS, Troitsk
[2]National Research University «Higher School of Economics», Moscow
[3]Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk
Polarized reflection spectra of $MAPbI_3$ single crystals in the terahertz range

185. BILYK V.R., OVCHINNIKOV A.V.[1], CHEFONOV A.V.[1]
MIREA – Russian Technological University, Moscow
[1]Joint Institute for High Temperatures of the RAS, Moscow
Universal stand for generation of wideband and narrowband terahertz pulses for study of induced dynamics in solids

186. KOSTROMYKINA V.V.[1,2], SKRYBYKINA A.A.[1,2], ROGOZHNIKOV G.S.[2]
[1]Sarov Branch of Lomonosov Moscow State University, Nizhny Novgorod region
[2]All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region
Research of the possibility of using the terahertz band pyroelectric detectors for probing biological tissues

187. FILIN S.A., ROGALIN V.E.[1], KAPLUNOV I.A.
Plekhanov Russian University of Economics, Moscow
[1]Institute for Electrophysics and Electric Power of the RAS, Saint-Petersburg
[2]Tver State University
Control of the chemical purity of the optical surface of the elements by the ellipsometric method

188. UKOLOV D.S.[1], BALUEV A.A.[1,2], PECHENKIN A.A.[1,2], LUKASHIN V.P.[1,2], GROMOVA P.S.[1,2]
[1]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
[2]Specialized Electronic Systems, Moscow
Laser scanning confocal IR microscope for research and non-destructive testing of semiconductor structures and ICs

189. SEKTAROV E.S.[1,2], SEDOV V.S.[3], BOLDYREV K.N.[1]
[1]Institute for Spectroscopy of the RAS, Troitsk
[2]National Research University «Higher School of Economics», Moscow
[3]Prokhorov General Physics Institute of the RAS, Moscow
X-ray as a method for manipulation of color centers charge state in diamonds

190. BOLOSHKO A.A., RYMKEVICH V.S.
ITMO University, Saint-Petersburg
Target roughness affection on laser induced microplasma glass treatment

191. OREKHOVA N.A.[1], PUKHTEEV A.O.[1], CHARITONCHIK R.A.[1], ZAJOGIN A.P., SHUNDALOV M.B.
Belarusian State University, Minsk
[1]Secondary School No. 24, Minsk, Belarus
Search and identification of micrometeorites from the tail of Halley's comet by laser atomic emission spectrometry

192. AKMALOV A.E., KOTKOVSKII G.E., KUZICHIN Yu.A., MARTYNOV I.L., OSIPOV E.V., CHISTYAKOV A.A., POPOVA I.Yu., 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
Spectral separation of aerosol particles in a gas flow optical cytometer

193. LETUTA S.N., DOROFEEV D.V., DOROSHKEVICH A.V., ISHEMGULOV A.T., TSYURKO D.E.
Orenburg State University
Observation of shock waves during bacterial photoinactivation in solutions

194. LOBANOV A.I., KOPYEVA M.S.[1,2], FILATOVA S.A.[2], TRIKSHEV A.I.[2], SADOVNIKOVA Ya.E., KAMYNIN V.A.[2]
MIREA – Russian Technological University, Moscow
[1]Peoples' Friendship University of Russia (RUDN University), Moscow
[2]Prokhorov General Physics Institute of the RAS, Moscow
Development of a universal optical stand for measuring the absorption saturation dynamics of optical absorbers

195. SKRYBYKINA A.A.[1,2], KOSTROMYKINA V.V.[1,2], ROGOZHNIKOV G.S.[2]
[1]Sarov Branch of Lomonosov Moscow State University, Nizhny Novgorod region
[2]All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region
Research of broadband optical radiation scattering by model media within development of optical biopsy complex

196. NECHIPURENKO N.I.[1], PROKOPENKO T.A.[1], PASHKOVSKAYA I.D.[1], PATAPOVICH M.P., ZAJOGIN A.P.
Belarusian State University, Minsk
[1]RRPC of Oncology and Medical Radiology, Minsk, Belarus
Morphological analysis and LAES of dried blood plasma droplets in the diagnosis of patients with TIA of the brain

197. ROGOZHNIKOV G.S., LYUBYNSKAYA T.E.
All-Russian Research Institute of Experimental Physics, Sarov, Nizhny Novgorod region
Optical spectra acquisition during surgical core and aspiration biopsy

198. YAMINSKY I.V., SENOTRUSOVA S.A., AKHMETOVA A.I.
Lomonosov Moscow State University
Nanometer resolution optical microscopy using microlenses

199. FEDORTSOV A.B., SILIVANOV M.O.
Saint-Petersburg Mining University
Using method of gentle awakening by light to control human biorhythms

200. BOBE A.S.[1,2], KOREPANOVA A.G.[1], SOLOVEY A.K.[1], VOZNESENSKAYA A.O.[1]
[1]ITMO University, Saint-Petersburg
[2]Geophotonica LLC, Saint-Petersburg
Data processing algorithm in the optical analyzer device for downhole fluid identification

Posters 3
Friday, January 28, 2022, 12.00

201. KABANOVA O.S., RUSHNOVA I.I., MELNIKOVA E.A., TOLSTIK A.L.
Belarusian State University, Minsk
Diffractive topological elements based on polymerizable liquid crystal

202. KHOMCHENKO A.V., PRIMAK I.U.
Belarusian-Russian University, Mogilev, Belarus
Measuring birefringence in LC-films

203. MAKHSUDOV B.I., FAYZULLOYEV I.Kh.
Tajik National University, Dushanbe, Republic of Tajikistan
Nonlinear phenomena in the interaction of laser radiation with composites based on polymer – nematic liquid crystal under uniaxial deformation

204. GALUTSKIY V.V., KUPLEVICH M.A., STRIKITSA N.V., STROGANOVA E.V., SHOSTAK E.S.
Kuban State University, Krasnodar
Research of layered structures based on $LiNbO_3$ by terahertz spectroscopy methods

205. 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 Center of the RAS, Apatity, Murmansk region
[1]Petrozavodsk State University
The influence of Fe and Mg double doping on lithium niobate crystal photoluminescence

206. ANIKIEV A.A.[1], UMAROV M.F.
Vologda State University
[1]Bauman Moscow State Technical University
Raman scattering of light in lithium niobate crystals with stoichiometry defects

207. 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 Center of the RAS, Apatity, Murmansk region
Laser conoscopy of large-sized lithium niobate single crystals

208. ANIKIEV A.A.[1], SIDOROV N.V.[2], UMAROV M.F.
Vologda State University
[1]Bauman Moscow State Technical University
[2]I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC Kola Science Center of the RAS, Apatity, Murmansk region
Quasi-elastic light scattering in congruent lithium niobate crystals

209. KOSTRITSKII S.M., SEVOSTYANOV O.G.[1], CHIRKOVA I.M.[1], PALATNIKOV M.N.[2]
RPC Optolink Ltd, Zelenograd
[1]Kemerovo State University
[2]I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of FRC Kola Science Center of the RAS, Apatity, Murmansk region
Photorefraction and photoluminescence in lithium niobate crystals

210. 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 Center of the RAS, Apatity, Murmansk region
Influence of the complexing ability of b^{3+} on the cationic composition of the Li_2O-Nb_2O_5-B_2O_3 system

211. ANISIMOV R.I., KOLMAKOV A.A., TEMEREVA A.S., SHARAYEVA A.E., SHANDAROV S.M., TIMOFEEV I.V.[1,2], PYATNOV M.V.[1,2]
Tomsk State University of Control Systems and Radioelectronics
[1]Kirensky Institute of Physics of SB RAS, Krasnoyarsk
[2]Siberian Federal University, Krasnoyarsk
Analysis of copper distribution in $LiNbO_3$:Cu crystals with surface doping

212. MAKAREVICH A.V., NAUNYKA V.N.
Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
Gain of the object light wave on reflective holograms in BSO crystal

213. DAVYDOUSKAYA V.V., NAUNYKA V.N., BUSHKO A.A., VELICHKO V.A.
Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
Choice of optimal geometry of propagation and interaction of two-dimensional light beams in a photorefractive crystal SBN

214. MAKAREVICH A.V., NICHIPORKO S.F., NAUNYKA V.N., ROPOT P.I.[1], SHANDAROV S.M.[2]
Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
[1]B.I. Stepanov Institute of Physics of the NAS of Belarus, Minsk
[2]Tomsk State University of Control Systems and Radioelectronics
Energy exchange of light beams on mixed holograms in a $Bi_{12}TiO_{20}$ crystal

215. NAUNYKA V.N., MAKAREVICH A.V., KULAK G.V., SHANDAROV S.M.[1]
Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus
[1]Tomsk State University of Control Systems and Radioelectronics
Effect of optical activity on wavefront reversal in $Bi_{12}SiO_{20}$ crystal

216. DYU V.G., KISTENEVA M.G., SHANDAROV S.M.
Tomsk State University of Control Systems and Radioelectronics
Influence of continuous laser radiation on optical absorption changes in $Bi_{12}TiO_{20}$:Ca crystal

217. UTAMURADOVA Sh.B., MUZAFAROVA S.A.[1], ABDUGAFUROV A.M.
Research Institute of Physics of Semiconductors and Microelectronics at NU Uzbekistan, Tashkent
[1]Physical-Technical Institute of SPA «Physics-Sun» Uzbekistan Academy of Science, Tashkent
Transparent conductive coatings based on metal oxides

218. KAPLUNOV I.A., ROGALIN V.E.[1], KROPOTOV G.I.[2], SHAHMIN A.A.[2], TRETIAKOV S.A.
Tver State University
[1]Institute for Electrophysics and Electric Power of the RAS, Saint-Petersburg
[2]Tydex, LLC, Saint-Petersburg
Optical transmission of the paratellurite single crystals

219. TRETIAKOV S.A., KAPLUNOV I.A., IVANOV A.M., MOLCHANOV S.V., STEPANOV V.S.
Tver State University
Influence of annealing on polished surfaces of paratellurite single crystals

220. KOTLIKOV E.N., LAVROVSKAYA N.P., TROPIN A.N.
Saint-Petersburg State University of Aerospace Instrumentation
Metal-dielectric spectral-separation coatings for the infrared range of the spectrum

221. VEKSHIN M.M., NIKITIN V.A., YAKOVENKO N.A.
Kuban State University, Krasnodar
Design and fabrication of integrated-optic directional couplers in glass for wavelength 1,55 micrometer

222. ZOLOTOVSKII I.O., LAPIN V.A., SEMENTSOV D.I.
Ulyanovsk State University
Amplification and compression of frequency modulated pulses in an active inhomogeneous fiber
223. DROZDOV I.R.[1], OVCHINNIKOV K.A.[1,2], BOYCHUK E.S.[1,3], KRISHTOP V.V[1,2,3]
[1]Perm Scientific-Industrial Instrument Making Company
[2]Perm State University
[3]Perm National Research Polytechnic University
Polarization interactions of light waves in testing of birefringent fibers by optical frequency domain reflectometry
224. BOGACHKOV I.V.
Omsk State Technical University
Finding frequency characteristics of Mandelstam – Brillouin scattering in various types of optical fibers
225. DOROFEEV V.V.[1,2], MOTORIN S.E. [1,2], SHARAFEEV A.R.[3], KOLTASHEV V.V.[4], FIRSTOV S.V.[4]
[1]Devyatykh Institute of Chemistry of High-Purity Substances of the RAS, Nizhny Novgorod
[2]Institute of Applied Physics of the RAS, Nizhny Novgorod
[3]Lobachevsky State University of Nizhny Novgorod
[4]Dianov Fiber Optic Research Center of the GPI RAS, Moscow
High-purity tellurite glasses and fibers activated with Er^{3+} and Tm^{3+}
226. BOGACHKOV I.V.
Omsk State Technical University
Impact assessment of longitudinal tensile loads on the durability of optical fibers
227. ILINSKY R.E.
Lytkarino Optical Glass Factory, Moscow region
Simulation of spatial distribution of radiation emitting from oblique end face of single-mode optical fiber by the geometro-optical analogy method
228. BOGACHKOV I.V.
Omsk State Technical University
Evaluation of the influence of the optical fiber strain degree on the reliability of the fiber-optic communication line
229. ZOLOTOVSKII I.O., LAPIN V.A., KAMYNIN V.A.[1], SEMENTSOV D.I.
Ulyanovsk State University
[1]Prokhorov General Physics Institute of the RAS, Moscow
Temporal compression of frequency modulated pulses in periodic fibers
230. BOGACHKOV I.V.
Omsk State Technical University
A compensation of the temperature change influence in the processing of brillouin reflectograms of optical fibers
231. PAN'KOV A.A.
Perm National Research Polytechnic University
Modal analysis of indicator polymer coatings with built-in fiber optic PEL-sensor
232. MURASHKINA T.I., KHASANSHINA N.A., BADEEVA E.A., BADEEV V.A.[1], SHACHNEVA E.A.[2], KOSTIN R.V., DVORETSKIY A.G.[2]
Penza State University
[1]School No. 203, Zarechny, Penza region
[2]MIREA – Russian Technological University, Moscow
Radiation-resistant fiber-optic measurement system parameters of liquid flows
233. MURASHKINA T.I., KUKUSHKIN A.N., BADEEV V.A.[1], DUDOROV E.A., TOLOVA A.A.
Penza State University
[1]School No. 203, Zarechny, Penza region
Evaluation of spark-explosion-fire safety of a fiber-optic information-measuring system
234. PRZHIYALKOVSKIY Ya.V.[2,1], STAROSTIN N.I.[1,2], MORSHNEV S.K.[1,2], SAZONOV A.I.[1,2]
[1]Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
[2]Scientific and Production Center «Profotech»,, Moscow
Fiber current sensor with excess noise subtraction
235. KUKUSHKIN A.N.
Penza State University
Development of a fiber optic tilt sensor
236. TUROV A.T.[1,2], KONSTANTINOV Yu.A.[2], BELOKRYLOV M.E.[2], MAKSIMOV A.Yu.[2]
[1]Perm National Research State University
[2]Perm Federal Research Center of UB RAS
Simple fiber optical distributed acoustic sensor
237. MURASHKINA T.I., TOLOVA A.A., KUKUSHKIN A.N., DUDOROV E.A.
Penza State University
3-D modeling of a fiber-optic strain sensor of attenuator type
238. MURASHKINA T.I., KUKUSHKIN A.N., BADEEV V.A.[1], TOLOVA A.A., PARSHIKOVA T.V.
Penza State University
[1]School No. 203, Zarechny, Penza region
Method of installation of fiber-optic strain sensor in the corner joint of the structure
239. PAN'KOV A.A., PISAREV P.V.
Perm National Research Polytechnic University
Computer simulation of dynamic deformation of plate/sensor system
240. MURASHKINA T.I., BADEEVA E.A., PARSHIKOVA T.V.
Penza State University
Fiber-optic sensor conversion function for measuring low pressure in parenchymal organs
241. POLYAKOV A.V., VOLCHANINA E.V.
Belarusian State University, Minsk
Spectral properties of the fiber Bragg grating for quasi-distributed temperature measures
242. BOGACHKOV I.V., AGAPITOV A.V.
Omsk State Technical University
Research of optical wave propagation in multilayer media

243. BOGACHKOV I.V., AGAPITOV A.V.
Omsk State Technical University
Development of the virtual laboratory work for studying reflection and refraction of waves at the media interface
244. MININ I.V., MININ O.V.
National Research Tomsk Polytechnic University
Optical phenomena in mesoscale dielectric three- and two-dimensional structures
245. GOSHEV A.A., ESEEV M.K., MAKAROV D.N.
Northern Arctic Federal University named after M.V. Lomonosov, Arkhangelsk
Analysis of the scattering spectra of ultra-short electromagnetic field pulses on a nanotube
246. KHALYAPIN V.A., BUGAY A.N.[1]
Kaliningrad State Technical University
[1]Joint Institute of Nuclear Researches, Dubna
On the stability of light bullets propagation in the ionization regime
247. ZAKHAROV I.N.
Kuban State University, Krasnodar
Energy of a charged particle in a balanced-modulated electromagnetic wave
248. KRAISKII A.A., KRAISKII A.V.
Lebedev Physical Institute of the RAS, Moscow
Significant increase in the amplitude of the wave function of a nonrelativistic charged particle falling on a crystal at one-dimensional approximation
249. SEMENOVA L.E.
Prokhorov General Physics Institute of the RAS, Moscow
Resonant hyper-Raman scattering of light by to-phonons in a CdS crystal
250. KRAISKII A.A., KRAISKII A.V.
Lebedev Physical Institute of the RAS, Moscow
On the group velocity of a narrowband pulse within the limits of the transparency window near the forbidden zone of a one-dimensional photonic crystal
251. PETROV N.I.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow **Propagation of polarized vortex light beams in graded-index nanofibers**
252. MININ I.V., MININ O.V.
National Research Tomsk Polytechnic University
Optical trap based on π/2 segmented cylinder and photonic hook in an inhomogeneous (gradient) medium
253. PETROV N.I.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
Depolarization of vortex light beams on propagation in free space
254. MININA O.V., GEINTS Yu.E., ZEMLYANOV A.A.
V.E. Zuev Institute of Atmospheric Optics, SB RAS, Tomsk
Numerical simulations of high-power femtosecond laser pulse nonlinear propagation in air under applied external wave-phase modulations
255. REMZOV A.D., SAVELYEV M.V.
Samara National Research University
Spatial and temporal characteristics of the four-wave radiation converter in a transparent nanosuspension taking into account the earth's gravity field
256. POLETAEV D.A., SOKOLENKO B.V.
V.I. Vernadsky Crimean Federal University, Simferopol
The possibilities of optical vortex's application to gravity tunnels' study

Posters 4
Friday, January 28, 2022, 16.00

257. LUKIN A.V.[1], MELNIKOV A.N.[1], PAVLYCHEVA N.K.[2], CHEPLAKOV A.N.[1,2]
[1]Scientific and Production Association «State Institute of Applied Optics», Kazan
[2]Kazan National Research Technical University named after A.N. Tupolev – KAI
Electric discharge detection device with the capability of researching the spectrum in the ultraviolet range
258. DENISOV D.G., KARASSIK V.E.
Bauman Moscow State Technical University
The analysis of coherent properties of optical radiation sources used in optical technologies
259. MASHKOVTSEVA L.S., BOLOTOV D.V.[1], KAZANTSEV S.Yu.[1,2], TESHAEV P.R.[1], RABENANDRASANA J.[1]
[1]Moscow Technical University of Communications and Informatics
[2]Moscow Polytechnic University
[3]All-Russian Institute for Scientific and Technical Information of the RAS, Moscow
Single-photon sources for communication systems with quantum key distribution
260. PLATONOV D.D., BELOV A.V., HYDYROVA S., VASILIEV D.D., MOISEEV K.M.
Bauman Moscow State Technical University
Comparison of the single photon detector quantum efficiency to photon polarization depending on the meander geometry
261. PLJONKIN A.P., BRAGIN I.O., GOMONOV D.N., STATIVKA K.A., HOMUTOV A.A.
Southern Federal University, Taganrog
Unfied optical communication system for a digital city
262. LAVROV A.P., IVANOV S.I., KONDAKOV D.V.
Peter the Great Saint-Petersburg Polytechnic University
Fiber-optic microwave signal delay line of recirculating type

263. NEBAVSKIY V.A., STARIKOV R.S., TRETYAKOV D.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
On the possibilities of analysis of nonlinearities of ultra-high frequency analogue optical links using optical and radio-frequency spectra

264. KOKLYUSHKIN V.A., SHEVKUNOV I.A.[1], BELASHOV A.V.[2], CHANG C.-J.[3], PETROV N.V.
ITMO University, Saint-Petersburg
[1]Tampere University of Technology, Finland
[2]Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
[3]National Taiwan Normal University, Taipei
Study on noncollinear degenerate phase modulation signal in scheme with focused pump beam

265. SREDIN V.G., KONRADI D.S., SAKHAROV M.V.[1]
Peter the Great Military Academy of Strategic Rocket Forces, Balashikha
[1]12 Central Research Institute of Defense Ministry, Sergiev Posad
Mathematical modeling of the effect of off-axis illumination by laser radiation on a matrix photodetector

266. AVLASEVICH N.T., BUT A.I., LYALIKOV A.M.
Janka Kupala State University, Grodno, Belarus
Increasing the sensitivity of measuring control of optical elements with a small wedge-shaped substrate

267. DENISOV D.G.
Bauman Moscow State Technical University
Spectral analysis of nanometer level profile parameters of large-sized optical parts

268. VOLCOV V.G., GINDIN P.D., KARPOV V.V., KUZNETSOV S.A.
JSC «Moscow Plant «SAPHIR»
Daytime monocular containing a night channel and an ultraviolet channel

269. LYSOVA E.M.
Bauman Moscow State Technical University
A reflecting telescope for CubeSat

270. VOLCOV V.G., GINDIN P.D., KARPOV V.V., KUZNETSOV S.A.
JSC «Moscow Plant «SAPHIR»
Sight for hunting small arms

271. PECHINSKAYA O.V., PROZOROVSKAYA A.A.
National Research University «Moscow Power Engineering Institute»
Modification of the telephoto lens of a spectral ratio pyrometer by correcting aberrations

272. AKHMETOV D.M., MUSLIMOV E.R.
Kazan National Research Technical University named after A.N. Tupolev – KAI
Spectrograph with a composite grism

273. BUSURIN V.I., MAKARENKOVA N.A., KOROBKOV K.A., BULYCHEV R.P.
Moscow Aviation Institute (National Research University)
Development and research of precision gravimeter with differential optical reading

274. KOMAROVA O.S., LENTOVSKII V.V., FEDOROV D.L.
Baltic State Technical University «VOENMEH» named after D.F. Ustinov, Saint-Petersburg
Study of optical direction findings at the technical university according to its history

275. TSVETKOV M.V., PAVLOV I.N.
National Research University «Moscow Power Engineering Institute»
Using the method of frustrated total internal reflection in biosensing

276. IVANOV M.A., IROSHNIKOV N.G., LARICHEV A.V.
Lomonosov Moscow State University
Investigation of the astigmatism influence on the fundus image details

277. IBRAGIMOVA E.I., PAVLOV I.N.
National Research University «Moscow Power Engineering Institute»
Image processing program for evaluating the effectiveness of respiratory protection products by optical method

278. KOTOV V.M.
Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
Fourier processing of two-dimensional images using truncated spatial filters

279. BURMAK L.I.
Scientific and Technological Center of Unique Instrumentation of the RAS, Moscow
Acousto-optic filtration of non-collinear interfering light beams

280. TELESHEVSKI V.I., BUSHUEV S.V., GRISHIN S.G.[1]
Moscow State University of Technology (Stankin)
[1]National Research Center «Kurchatov Institute», Moscow
Acousto-optoelectronic phase shift control in laser interferometry

281. RODIN I.R., PAVLOV I.N.
National Research University «Moscow Power Engineering Institute»
Visualization of a sound field in a liquid using a laser plane

282. FILATOV A.L.[1], MARKOV A.P.[1,2], YURKOVA A.N.[1]
[1]Fryazino Branch of Kotel'nikov Institute of Radioengineering and Electronics of RAS
[2]Moscow Aviation Institute (National Research University)
A neural network for lightning positions localization on geostationary lightning mappers

283. KULAKOV M.N., STARIKOV R.S., CHEREMKHIN P.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Effect of the object missing elements on reconstruction quality at single-pixel imaging

284. DENISOV D.G.
Bauman Moscow State Technical University
The analysis of the possibility of minimizing the speckle structure contrast in the method of dynamic interferometry

285. MAKSIMOVA L.A.[1], MYSINA N.Yu.[1], PATRUSHEV B.A.[1,2]
[1]Institute of Precision Mechanics and Control of the RAS, Saratov
[2]National Research Saratov State University named after N.G Chernyshevsky
Modeling of the processes of formation of measuring signal in a laser speckle interferometer of lateral micro-displacements with gaussian illuminating beams

286. PAVLOV P.V., ARTANOV V.V., STEPANOV A.R.
Air Force Academy named after prof. N.E. Zhukovsky and Yu.A Gagarin, Voronezh
Determination of internal defects in the structural elements of aircraft cabins by the speckle structure of optical radiation

287. PATRUSHEV B.A.[1,2], MAKSIMOVA L.A.[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
Speckle-interferometer of tangential displacement of scattering object when illuminated with a single laser beam

288. TSAREVA A.M., SHAKIROV N.I., TSAREVA K.A.[1], ZARIPOV M.R., MAKAEVA R.Kh.
Kazan National Research Technical University named after A.N. Tupolev – KAI
[1]Kazan Federal University
Holographic interferometry for visualizing complex oscillations of compressor's disk

289. ZAGORULKO K.A.[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)
Phase noise measurements of narrow-linewidth lasers

290. YAKUSHENKOV P.O.
Lebedev Physical Institute of the RAS, Moscow
Investigation of mode locking of the diode-pumped laser for the generator of a carrier train in photonic circuits

291. KUZMIN M.S., ROGOV S.A.
Bonch-Bruevich Saint-Petersburg State University of Telecommunications
Input of low-frequency signals into optical information processing systems with a liquid crystal matrix input

292. MINIKHANOV T.Z., ZLOKAZOV E.Yu., KRASNOV V.V., DEREVENICKAIA D.D.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Measurement of time dynamics of phase modulation of the LC SLM HoloEye PLUTO 2 VIS-016

293. DEREVENICKAIA D.D., KRASNOV V.V., ZLOKAZOV E.Yu., MINIKHANOV T.Z.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Optical synthesis of phase diffraction optical elements without carrier spatial frequency

294. KHARITONOV D.Yu., MUSLIMOV E.R.
Kazan National Research Technical University named after A.N. Tupolev – KAI
Modeling of a second generation holographic grating

295. ISMANOV Yu.H.[1], TYNYSHOVA T.D.
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
Influence of a phase object with a changing refractive index on the position of the grating self-reproduction planes

296. AVLASEVICH N.T., LYALIKOV A.M.
Janka Kupala State University, Grodno, Belarus
Device for recording holograms of periodic structures in incoherent light with arbitrary orientation of structure bands

297. ISMANOV Yu.H., DZHAMANKYZOV N.K., ALYMKULOV S.A.
Institute of Physics of NAS KR, Bishkek, Kyrgyz republic
Features of recording and restoration of the grating hologram

298. AVLASEVICH N.T., LYALIKOV A.M.
Janka Kupala State University, Grodno, Belarus
Formation of holograms of periodic structures in incoherent light using support gratings

299. GANZHERLI N.M., GULYAEV S.N.[1], MAURER I.A.
Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
[1]Peter the Great Saint-Petersburg Polytechnic University
High-frequency holographic gratings on dichromated gelatin

300. MAHILNY U.V.[1], STANKEVICH A.I.[1], KHRAMTSOV E.A.[1,2], SHKADAREVICH A.P.[2]
[1]Belarusian State University, Minsk
[2]Scientific and Technical Center «LEMT» of the BelOMO, Minsk, Belarus
Photorefractive and relief-forming holographic material

301. GANZHERLI N.M., GULYAEV S.N.[1], MAURER I.A., ARKHIPOV A.V.[1]
Ioffe Physical-Technical Institute of the RAS, Saint-Petersburg
[1]Peter the Great Saint-Petersburg Polytechnic University
Non-standard method of processing photographic material PFG-04 for holography

302. DOLGIREV V.O., SHARANGOVICH S.N.
Tomsk State University of Control Systems and Radioelectronics
Experimental research of holographic formation of multiplexed multilayer inhomogeneous diffraction structures in photopolymerizing compositions

303. BYKOVSKY A.Yu., VASILIEV N.A.
Lebedev Physical Institute of the RAS, Moscow
Multiple-valued logic based model of trust for agents, controlled via the optical network

304. PAVLOV A.V., GAUGEL A.O.
ITMO University, Saint-Petersburg
On the approximation of spatial spectra of images under processing by Fourier-holography scheme

305. GARNAEVA G.I., NEFEDIEV L.A., NIZAMOVA E.I.
Kazan Federal University
Logical operations with images when using the effects of locking and erasing information

306. ISMANOV Yu.H., ALYMKULOV S.A., DZHAMANKYZOV N.K., ZHUMALIEV K.M.
Institute of Physics of NAS KR, Bishkek, Kyrgyz republic
Loss of information in holographic systems

307. NIZAMOVA E.I., NEFEDIEV L.A., GARNAEVA G.I.
Kazan Federal University
Polarization control of signals in accumulated stimulated echo hologram
308. EZERSKII A.S., GEORGIEVA A.O., CHERNYKH A.V., PETROV N.V.
ITMO University, Saint-Petersburg
Holographic registration system based on the geometric phase effect in case of researching quality of the wavefront during modulation with a digital micromirror device
309. SVISTUNOV A.S., RYMOV D.A., CHEREMKHIN P.A., YAROVOY I.Yu.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Reconstruction of 3D-scene section from digital hologram by machine learning
310. OVCHINNIKOV A.S., KRASNOV V.V., KURBATOVA E.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Research of binarization methods for amplitude diffraction optical elements without a carrier spatial frequency
311. KOZLOV A.V., RODIN V.G, CHEREMKHIN P.A.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Reduction of noise in digital holography by filtration with interpolation
312. EVTIKHIEV N.N., KRASNOV V.V., MOLODTSOV D.Yu., RODIN V.G., CHEREMKHIN P.A., STARIKOV R.S.
National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
Non-coherent correlator with utilizing of holographic filter synthesized using Hartley transform