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A. Ramdane1, V. Panapakkam1, Q. Gaimard1, K. Merghem1, G. Aubin1, N. Chimot2, F. Lelarge2, V. Vujicic3, A. Anthur3, R. Zhou3, L.P. Barry3, P. Marin4, J.N. Kemal4, J. Pfeifle4, C. Koos4; 1 - Laboratory for Photonics, CNRS, France, 2 - III-V Lab, Palaiseau, France, 3 - Dublin City Univ., Ireland, 4 - Karlsruhe Inst. of Technology (KIT), Germany

R3-11 Dislocations in LD and LED semiconductor heterostructures
A.E. Romanov1,2, J.S. Speck3; 1 - ITMO Univ., Russia, 2 - Ioffe Inst., Russia, 3 - UCSB, USA

R3-13 Fractional order of poling period for broadly tunable second harmonic generation
K.A. Fedorova1,2, G.S. Sokolovskii2, I.O. Bakshaev3, D.A. Livshits3, E.A. Rafailov1; 1 - Aston Univ., United Kingdom, 2 - Ioffe Inst., Russia, 3 - Innolume GmbH, Germany

R3-14 True yellow II-VI/GaAs optically pumped laser structures for microchip laser diode converters
S.V. Sorokin1, I.V. Sedova1, S.V. Gronin1, S.V. Ivanov1, E.V. Lutsenko2, A.G. Vainilovich2, G.P. Yablonskii2; 1 - Ioffe Inst., Russia, 2 - Stepanov Inst. of Physics NASB, Belarus

R3-15 Infrared, green, and blue-violet pulsed lasers based on semiconductor structures pumped by low-energy electron beam
M.M. Zverev1, N.A. Gamov1, E.V. Zhdanova1, V.B. Studionov1, I.V. Sedova2, S.V. Sorokin2, S.V. Gronin2, S.V. Ivanov2, M.A. Ladugin3, A. Padalitsa3, A.V. Mazalov3, V. Kureshov3, A.A. Marmalyuk3; 1 - Moscow Technological Univ. MIREA, 2 - Ioffe Inst., 3 - RDI Polyus, Russia

R3-16 Monolithic high-index contrast grating VCSELs
M. Gebski1, M. Marciniak1, M. Dems1, J.A. Lott2, T. Czyszanowski1; 1 - Lodz Univ. of Technology, Poland, 2 - Technical Univ. Berlin, Germany

R3-17 VCSEL polarization control by rhomboidal selectively-oxidized current aperture
M.A. Bobrov1, N.A. Maleev1, S.A. Blokhin1, A.G. Kuzmenkov1,2 A.P. Vasil'ev1,2, A.A. Blokhin1, M.M. Kulagina1, Yu.A. Guseva1, S.I. Troshkov1, V.M. Ustinov1,2,3; 1 - Ioffe Inst., 2 - Submicron Heterostructures for Microelectronics, Research Engineering Center RAS, 3 - Peter the Great St. Petersburg Polytechnic Univ., Russia

R3-19 1.3 μm InAs quantum dot semiconductor disk laser
S.A. Blokhin1, M.A. Bobrov1, A.A. Blokhin1, A.G. Kuzmenkov1, A.P. Vasil'ev1, N.A. Maleev1, V.V. Dudelev1, K.K. Soboleva2, G.S. Sokolovskii1, A. Rantamäki3, O. Okhotnikov3, V.M. Ustinov1; 1 - Ioffe Inst., Russia, 2 - Peter the Great St.Petersburg Polytechnic Univ., Russia, 3 - Tampere Univ. of Technology, Finland

R3-20 A serially-connected two-chip VECSEL for dual-wavelength emission
F. Zhang1, M. Gaafar1, C. Möller1, W. Stolz1,2, M. Koch1, A. Rahimi-Iman1; 1-

Philipps-Univ. Marburg, Germany, 2 - NAsP III/V GmbH, Germany

R3-21 Self-mode-locked semiconductor disk laser
A. Rahimi-Iman1, M. Gaafar1, M. Vaupel1, C. Möller1, F. Zhang1, D. Al-Nakdali1, K. A. Fedorova2, W. Stolz1,3, E.U. Rafailov2, M. Koch1; 1- Philipps-Univ. Marburg, Germany, 2 - Aston Univ., United Kingdom, 3 - NAsP III/V GmbH, Germany

R3-23 AFM visualization of half-disk WGM laser modes
P.A. Alekseev1, M.S. Dunaevskiy1,2, A.M. Monakhov1, V.V. Dudelev1, G.S. Sokolovskii1,3, A. Baranov4, R. Teissier4; 1 - Ioffe Inst., 2 - ITMO Univ., Russia, 3 - Peter the Great St. Petersburg Polytechnic Univ., Russia, 4 - Inst. d'Electronique du Sud, France

R3-24 Compact external cavity laser with photonic crystal cavity reflector
L. O'Faolain1,3, A.A. Liles1, A.P. Bakoz2,3, A.A. Gonzalez-Fernandez1, S.P. Hegarty2,3; 1 - Univ. St. Andrews, United Kingdom, 2 - Tyndall National Inst., Ireland, 3 - Cork Inst. of Technology, Ireland

R3-25 Photonic crystal reflector laser
A.P. Bakoz1,2, A.A. Liles3, E.A. Viktorov4,5, L.O. Faolain3, G. Huyet1,2,4, S.P. Hegarty1,2; 1 - Cork Inst. of Technology,Ireland, 2 - Tyndall National Inst., Ireland, 3 - Univ. St Andrews, United Kingdom, 4 - ITMO Univ., Russia, 5 - Univ. Libre de Bruxelles, Belgium

R3-26 Photonic crystal surface emitting lasers – coherent arrays and external feedback
R.J.E. Taylor1, G. Li2, P. Ivanov2, D.T.D. Childs2, B.J. Stevens3, N. Babazadeh2, O. Ignatova2, Y. Nakano1, T. Tanemura1, R.A. Hogg2; 1 - Univ. of Tokyo, Japan, 2 - Univ. of Glasgow, United Kingdom, 3 - Univ. of Sheffield, United Kingdom

R3-27 Light sheet microscopy for visualising fast biological dynamics in 3D
O.E. Olarte, J. Andilla, J. Licea-Rodriguez, D. Artigas, P. Loza-Alvarez; ICFO-Inst. de Ciencies Fotoniques, The Barcelona Inst. of Science and Technology, Spain

R3-30 Conical refraction with low-coherent light sources
G.S. Sokolovskii1, V.Yu. Mylnikov2, S.N. Losev1,2, K.A. Fedorova3, E.U. Rafailov3; 1 - Ioffe Inst., Russia, 2 - Peter the Great St. Petersburg Polytechnic Univ., Russia, 3 - Aston Univ., United Kingdom

R3-33 Broadly tunable dual-wavelength InAs/GaAs quantum-dot laser for THz generation
K.A. Fedorova1,2, A.A. Gorodetsky1,3, D.A. Livshits4, N.A. Maleev2, S.A. Blokhin2, K.K. Soboleva5, V.M. Ustinov6, E.U. Rafailov1; 1 - Aston Univ., United Kingdom, 2 - Ioffe Inst., Russia, 3 - ITMO Univ., Russia, 4 - Innolume GmbH, Germany, 5 - Peter the Great St. Petersburg Polytechnic Univ., Russia, 6 - Submicron Heterostructures for Microelectronics, Research Engineering Center RAS, Russia

R3-34 Generation of intense sub-100 fs pulses from Yb-doped solid-state lasers based on nanostructured semiconductor saturable absorbers
A. Major; Univ. of Manitoba, Canada

R3-35 Generation of THz radiation in epitaxial InGaAs films on InP substates of various crystallographic orientations
G.B. Galiev1, G.H. Kitaeva2, E.A. Klimov1, V.V. Kornienko2, K.A. Kuznetsov2, A.N. Klochkov1, S.S. Pushkarev1; 1 - Inst. of Ultrahigh Frequency Semiconductor Electronics RAS, 2 - Moscow State Univ., Russia

R3-36 Wavelength-swept laser based on semiconductor optical amplifier for dynamic optical fiber sensors
M. Yong Jeon, J. Woo Park, M. Ock Ko; Chungnam National Univ., Republic of Korea

R3-37 Directly-modulated lasers monolithically integrated with an optical filter for long-range access network
N. Chimot, S. Joshi, J.-G. Provost, K. Mekhazni, F. Lelarge; 3-5 Lab, a joint laboratory Nokia Bell Labs France, Thales Research and Technology, CEA Leti, France

R3-p01 High-power 808 nm laser bars (5mm) with wall-plug efficiency more than 67%
T.A. Bagaev, M.A. Ladugin, A.Y. Andreev, A.A. Marmalyuk, S.M. Sapozhnikov, A.V.

Lobintsov; R&D Inst. Polus, Russia

R3-p02 Spatial current density distribution of "vertical" and "face-up" high-power blue AlGaInN LEDs
A.V. Aladov, A.E. Chernyakov, A.L. Zakgeim; Submicron Heterostructures for Microelectronics, Research Engineering Center RAS, Russia

R3-p03 Frequency stability of miniature quantum magnetometer with laser pumping
S.V. Ermak1, M.V. Petrenko2, V.V. Semenov1; 1 - Peter the Great St. Petersburg Polytechnic Univ., 2 - Ioffe Inst., Russia

R3-p04 Q-switch in injected quantum dot laser
E.A. Viktorov1,2, T. Erneux2, B. Tykalewicz3,4,5, D. Goulding3,4,5, S.P. Hegarty3,4,5, G. Huyet1,3,4,5, I.N. Dubinkin1, N.A. Fedorov1, B. Kelleher5; 1 - ITMO Univ., Russia, 2 - Univ. Libre de Bruxelles, Belgium, 3 - Univ. College Cork, Ireland, 4 - Cork Inst. of Technology, Ireland, 5 - Tyndall National Inst., Ireland

R3-p06 Modeling a semiconductor quantum dot laser
I.V. Koryukin; Inst. of Applied Physics RAS, Russia

R3-p07 Quantum cascade laser grown by MOCVD and operating at 9.7 μm
M.A. Ladugin1, A.Yu. Andreev1, T.A. Bagaev1, P.V. Gorlachuk1, A.V. Lobintsov1, A.A. Marmalyuk1, A.A. Padalitsa1, Yu.L. Ryaboshtan1, S.M. Sapozhnikov1, V.A. Simakov1, K.Yu. Telegin1, I.I. Zasavitskii2, A.N. Zubov2; 1 - R&D Inst. Polyus, 2 - Lebedev Physical Inst. RAS, Russia

R3-p08 Perforated microring resonators
I.V. Levitskii1, V.P. Evtikhiev2; 1 - SHM R&E Center RAS, 2 - Ioffe Inst., Russia

R3-p09 Metamaterial for the second harmonic generation
G.M. Savchenko1,2, V.V. Dudelev1, K.K. Soboleva1,3, V.V. Lundin1, A.V. Sakharov1, A.G. Deryagin1, V.I. Kuchinskii1,2, N.S. Averkiev1, G.S. Sokolovskii1; 1 - Ioffe Inst., 2 - St. Petersburg Electrotechnical Univ., 3 - Peter the Great St. Petersburg Polytechnic Univ., Russia

R3-p10 Dynamic model of laser-thyristor based on AlGaAs/GaAs heterostructure for subnanosecond optical pulse generation
O.S. Soboleva, A.A. Podoskin, V.S. Yuferev, N.A. Pikhtin, S.O. Slipchenko, I.S. Tarasov; Ioffe Inst., Russia

R3-p11 Dark soliton generation from semiconductor optical amplifier gain mediumin ring fiber configuration
S.N. Turtaev1, M.A. Chernysheva2, K.A. Fedorova2, A.A. Gorodetsky2, E.U. Rafailov2; 1 - Univ. of Dundee, 2 - Aston Univ., United Kingdom

R3-p12 Effect of waveguide design on AlGaInAs/InP laser diode characteristics
D.A. Veselov1, I.S. Shashkin1, K.R. Ayusheva1, A.V. Lyutetskiy1, N.A. Pikhtin1, S.O. Slipchenko1, A.A. Padalitsa2, M.A. Ladugin2, A.A. Marmalyuk2, Yu.L. Ryaboshtan2, I.S. Tarasov1; 1 - Ioffe Inst., 2 - JSC Sigm Plus, Russia

R3-p13 ZnSe-based laser array pumped by electron beam with energy below 6 keV
M.M. Zverev1, N.A. Gamov1, E.V. Zhdanova1, V.B. Studionov1, I.V. Sedova2, S.V. Sorokin2, S.V. Gronin2, S.V. Ivanov2; 1 - Moscow Technological Univ. MIREA, 2 - Ioffe Inst., Russia

R3-p16 Defect vizualization and characterization in ZnSe crystals using two-photon confocal microscopy
A.A. Gladilin1, V.P. Kalinushkin1, O.V. Uvarov1, E.M. Gavrischuk2, N.A. Timofeeva2, V.B. Iconnikov2, M.I. Studenikin1, V.A. Chapnin1, A.V. Ryabova1; 1 - Prokhorov General Physics Inst. RAS, 2 - Devyatykh Inst. of Chemistry of High-Purity Substances RAS, Russia

R3-p17 InSb quantum dashes heterostructures in narrow-gap InAs(Sb,P) matrix system
K.D. Moiseev, V.V. Romanov, E.V. Ivanov, P.A. Dement'ev, L.A. Sokura, V.N. Nevedomsky, N.A. Bert; Ioffe Inst., Russia

R3-p19 Study of particle drag force in a channel for optical trapping applications
S.A. Poniaev1, K.K. Soboleva2, A.I. Sobolev2, G.S. Sokolovskii1; 1 - Ioffe Inst., 2 - Peter the Great St. Petersburg Polytechnic Univ., Russia

Session: R4: Laser Beam Control

R4-04 Spectral shift of the transparency line of a semiconductor multilayer resonator under pulsed laser radiation
A.A. Ryzhov1,2, I.M. Belousova1,2, G.E. Tsyrlin3, A.I. Khrebtov3, R.R. Reznik3,4; 1 - Vavilov State Optical Inst., 2 - ITMO Univ., 3 - Academic Univ. RAS, 4 - St. Petersburg Polytechnical Univ., Russia

R4-05 Enhancement of optical limiting by polymer doping of aqueous nano-carbon suspensions
A.V. Sokolov1, I.M. Kislyakov1,2, S.A. Povarov1,2, C.S. Yelleswarapu3; 1 - ITMO Univ., Russia, 2 - Vavilov State Optical Inst., Russia, 3 - Univ. of Massachusetts Boston, United States

R4-06 Holographic recording of relief-free infrared diffractive optics based on semiconductor nanomaterials
S.G. Krivoshlykov; ANTEOS, Inc., United States

R4-07 Interference comb-spectroscopy with increasing sensitivity
S.A. Pulkin1, E.N. Borisov1, D.V. Venediktov1, V.Yu. Venediktov1,2, M.V. Balabas1, S. Savel'eva1, S.V. Uvarova1, I.N. Strel'nikov1, V. Arnautov1, V. Shevtzov1, O.Tret'yak1, A. Kalinichev1; 1 - St. Petersburg State Univ., 2 - St. Petersburg State Electrotechnical Univ., Russia

R4-08 Digital correction of distortions in holographic interferometer
A.A. Sevruygin1, S.A. Pulkin2, I.M. Tursunov1, D.V. Venediktov1, V.Yu. Venediktov1,2,3; 1 – St. Petersburg State Electrotechnical Univ., 2 – St. Petersburg State Univ., 3 – ITMO Univ., Russia

R4-09 3D ellipsoidal beam shaping in laser drivers for photoinjectors
E.I. Gacheva1, S.Yu. Mironov1, A.K. Poteomkin1, V.V. Zelenogorsky1, A.V. Andrianov1, E.A. Khazanov1, M. Krasilnikov2, F. Stephan2; 1 - Inst. of Applied Phys. RAS, Russia, 2 - Deutsches Elektronen-Synchrotron, Germany

R4-10 Direction measurement by means of dynamic goniometer method
Yu.V. Filatov, E.D. Bohkman, P.A. Ivanov, R.A. Larichev, P.A. Pavlov, V.Yu.Venediktov; St. Petersburg State Electrotechnical Univ., Russia

R4-11 The influence of rotation on the parameters of the whispering gallery modes resonator
Yu.V. Filatov1, E.V. Shalymov1, V.Yu. Venediktov1,2; 1 - St. Petersburg State Electrotechnical Univ., 2 - St. Petersburg State Univ., Russia

R4-12 Spacial and temporal control of laser beams for biomedical multiphoton imaging
J.M. Bueno; Univ. Murcia, Spain

R4-13 Adaptive optics for ultrashort pulse manipulation
C. Manzoni1, A. Cantaluppi2, S. Bonora3, G. Cerullo1; 1 - Politecnico di Milano, Italy, 2 - Max Planck Inst. for the Structure and Dynamics of Matter, Germany, 3 - Univ. degli studi di Padova, Italy

R4-14 Uniform focal spot formation in adaptive system with Shack-Hartmann sensor and M2 sensor
J. Sheldakova, A. Kudryashov, A. Rukosuev, A. Lylova; Moscow Univ. of Mechanical Engineering, Russia

R4-16 A new method of the real-time atmospheric turbulence modeling
A. Lylova1, A. Kudryashov1, Ju. Sheldakova1, G. Borsoni2; 1 - Moscow State Univ. of Mechanical Engineering, Russia, 2 - AKA Optics (SAS), France

R4-21 Orbital angular momentum of the vortex laser beams in a turbulent atmosphere: numerical modeling and asymptotic theory
V.P. Aksenov1, V.V. Kolosov1,2, G.A. Filimonov1, C.E. Pogutsa1; 1 - Zuev Inst. of Atmospheric Optics RAS, 2 - Tomsk Scientific Center SB RAS, Russia

R4-p02 Analysis of optical fiber complex propagation matrix on the basis of vortex modes
V.S. Lyubopytov1, A. Tatarczak2, X. Lu2, R.V. Kutluyarov1, S. Rommel2, A.Kh. Sultanov1, I. T. Monroy2; 1 - Ufa State Aviation Technical Univ., Russia, 2 - Technical Univ. of Denmark, Denmark

R4-p03 Correction of wavefront distortion in YAG:Nd active elements in oblique geometry
Yu.D. Arapov1, V.P. Korolkov2, R.K. Nasyrov2, A.I. Malyshev2, I.M. Ustyantsev1, I. V. Kas'yanov1; 1 - RFNC-VNIITF, 2 - Inst. of Authomation and Electrometry SB RAS, Russia

R4-p05 Diffraction caused spatial noise occurring in multiple pass laser amplifier
A.V. Kovalev, V.M. Polyakov, A.A. Mak; ITMO Univ., Russia

R4-p06 Optical vortex array in broad-area laser
A.A. Krents1,2, D.A. Anchikov1, N.E. Molevich1,2, A.V. Pakhomov1,2; 1 - Samara State Aerospace Univ., 2 - Lebedev Physical Inst. RAS, Russia

R4-p07 Measurement and correction of the wavefront of laser beam propagated through scattering medium
I. Galaktionov, Ju. Sheldakova, A. Kudryashov, A. Byalko, G. Kalenkov; Moscow State Univ. of Mechanical Engineering, Russia

R4-p09 Visualization of transparent microinhomogeneity in the nonlinear optical crystals by phase-contrast technique with adaptive photothermal Zernike filter
E.L. Bubis, V.V. Lozhkarev, V.N. Portnov, A.P. Prohorov, I.V. Kuzmin, O.A. Malshakova; Inst. of Applied Phys. RAS, Russia

R4-p10 Low cost adaptable laser transmitter for ground-based orbital observations
F. Sproll, D. Hampf, P. Wagner, L. Humbert, W. Riede; Inst. of Technical Physics, German Aerospace Center, Germany

R4-p11 Fiber-array-based vortex beams propagation through a turbulent atmosphere
V.P. Aksenov1, V.V. Dudorov1, V.V. Kolosov1,2; 1 - Zuev Inst. of Atmospheric Optics SB RAS, 2 - Tomsk Scientific Center SB RAS, Russia

R4-p16 Statistically optimal control algorithm for the adaptive optics system
V.V. Lavrinov; Zuev Inst. of Atmospheric Optics SB RAS, Russia

R4-p17 Focusing of the laser beam by the conical axicon and the matched linearly layered lens
D.A. Savelyev1,2, A.V. Ustinov2, S.N. Khonina1,2; 1 - Samara State Aerospace Univ., 2 - Image Processing Systems Inst. RAS, Russia

R4-p19 Suppression of self-mode-locking and control of mode-locking regime of neodymium laser with single crystal GaAs into the cavity
M.V. Kozlova, A.M. Smirnov, R.M. Al-Khuzairi, V.N. Mantsevich, V.S. Dneprovskii; Lomonosov Moscow State Univ., Russia

R4-p20 Measurement of laser cavity loss with algorithmic correction of dynamic effects
V.V. Azarova, A.S. Bessonov, A.L. Bondarev, A.P. Makeev, E.A. Petrukhin; R&D Inst. "Polus", Russia

R4-p21 Acousto-optical modulators made of KYW
M.M. Mazur1, L.I. Mazur1, V.E. Pozhar2,3, V.N. Shorin1; 1 - National Research Inst. for Physicotechnical and Radio Engineering Measurements, 2 - Scientific Technological Center of Unique Instrumentation RAS, 3 - National Research Nuclear Univ. MEPhI, Russia

R4-p23 Image processing by means of orientational self-action of light in nematic liqud crystal
E.L. Bubis1, I.V. Kuzmin1, I.A. Budagovsky2, S.A. Shvetsov2,3, M.P. Smayev2, A.S. Zolot'ko2, A.Yu. Bobrovsky4; 1 - Inst. of Applied Physics RAS, 2 - Lebedev Physical Inst. RAS, 3 - Moscow Inst. of Physics and Technology, 4 - Lomonosov Moscow State Univ., Russia

R4-p24 Assessment of the microoptical gyro parameters for provision of the given limiting sensitivity
Yu.V. Filatov1, E.V. Shalymov1, V.Yu. Venediktov1,2; 1 - St. Petersburg State Electrotechnical Univ., 2 - St. Petersburg State Univ., Russia

R4-p25 The results of experimental research adaptive optical system at different wavelengths
V.Yu. Venediktov1,2, A. Gorelaya1, E. Shubenkova1, D. Dmitriev3, I. Lovchiy3, A. Tsvetkov3; 1 - St. Petersburg State Electrotechnical Univ., 2 - St. Petersburg State Univ., 3 - Scientific Research Inst. for Optoelectronic Instrument Engineering, Russia

R4-p27 Auto alignment system for 100 Hz Nd:YAG laser
A.A. Kharitonov1, V.M. Polyakov1, A.V. Kovalev1, A.U. Karseeva2, S.V. Kruzhalov3; 1 - ITMO Univ., 2 - FSUE "RI PhOOLIOS" of RC "S.I. Vavilov SOI", 3 - Peter the Great St. Petersburg Polytechnic Univ., Russia

R4-p28 Spectral and optical limiting properties of ZnS nano and bulk crystals
A.A. Ryzhov1, I.M. Belousova1,2, D.A. Videnichev1,2, A.C. Panfutova1, S.K. Evstropiev1,2, K.S. Evstropiev2, I.M. Kislyakov1,2; 1 - Vavilov State Optical Inst., 2 - ITMO Univ., Russia

R4-p29 Propagation of vortex eigenfunctions of bounded hankel transform in a parabolic fiber
M.S. Kirilenko1,2, O.A. Mossoulina1, S.N. Khonina1,2; 1 - Samara State Aerospace Univ., 2 - Image Processing Systems Inst. RAS, Russia

R4-p30 Quantum dots as luminescent label for immunoassay
A.M. Sobolev1, M.V. Pozharov1, N.V. Beloglazova1,2, I.Yu. Goryacheva1,3; 1 - Saratov National Research State Univ., Russia, 2 - Ghent Univ., Belgium, 3 - St. Petersburg State Univ., Russia

Session: R5: Super-Intense Light Fields and Ultra-Fast Processes

R5-06 Compression of powerful femtosecond pulses after compressor
V.N. Ginzburg, S.Yu. Mironov, I.V. Yakovlev; Inst. of Applied Physics RAS, Russia

R5-09 High optical harmonics polarization state due to incident field spatial inhomogeneity
A.V. Andreev1, S.Yu. Stremoukhov1,2, O.A. Shoutova1; 1 - Lomonosov Moscow State Univ., 2 - Russian National Research Centre "Kurchatov Inst.", Russia

R5-14 Generation of attosecond relativistic electron jets in laser pulse interaction with gas targets
V.V. Kulagin1,2, V.A. Cherepenin2, V.N. Kornienko2; 1 - Sternberg Astronomical Inst. of Lomonosov Moscow State Univ., Russia, 2 - Kotel'nikov Inst. of RadioEngineering and Electronics RAS, Russia

R5-15 Laser energy absorption and hot electrons generation in near-critical plasma at relativistic intensities
I.N. Tsymbalov1, K.A. Ivanov1, S.A. Shulyapov1, D.A. Krestovskih1, R.V. Volkov1, A.B. Savel'ev1, P.A. Ksenofontov2, A.V. Brantov2, V.Yu. Bychenkov2; 1 - Lomonosov Moscow State Univ., 2 - Lebedev Physical Inst. RAS, Russia

R5-16 Dynamics of inhomogeneous plasma expansion in intense femtosecond laser-ablated aluminum plumes
A. Stepanov, M. Garasev, A. Korytin, V. Kocharovsky, Yu. Mal'kov, A. Murzanev, A. Nechaev, D. Yashunin; Inst. of Applied Physics RAS, Russia

R5-21 Turbulence in relativistic plasma - from magnetohydrodynamic to kinetic regime
Makoto Takamoto; Univ. of Tokyo, Japan

R5-23 Electron-free UV laser pulse filamentation under coherent rotational SRS in air
I.V. Smetanin1, A.O. Levchenko1, A.V. Shutov1, N.N. Ustinovskii1, V.D. Zvorykin1,2; 1 - Lebedev Physical Inst.RAS, 2 - National Research Nuclear Univ. MEPhI, Russia

R5-p02 Managing of spatial characteristics of internal modifications by means of optical delay in cases of femtosecond micromachining of materials
D.V. Ganin1,2, K.E. Lapshin1, F.Z. Obidin1, S.K. Vartapetov1; 1 - Physics Instrumentation Center, Prokhorov General Physics Inst. RAS, 2 - National Research Nuclear Univ. "MEPhI", Russia

R5-p03 Direct femtosecond-pulse inscription of fiber Bragg gratings with special characteristics for sensing and laser applications
A.A. Wolf1, A.V. Dostovalov1,2, A.V. Parygin1, M.I. Skvortsov1, S.S. Yakushin2, S.A. Babin1,2; 1 - Inst. of Automation and Electrometry SB RAS, 2 - Novosibirsk State Univ., Russia

R5-p05 More than 500 mm deformable mirrors for high-power laser beam correction
V. Samarkin1, A. Aleksandrov1, A. Kudryashov1,2, P. Romanov1, G. Borsoni2, J. Sheldakova1; 1 - Moscow State Univ. of Mechanical Engineering, Russia, 2 - AKAoptics SAS, France

R5-p06 Electron acceleration in vacuum by optimized nonlinearly chirped laser pulse
M. Akhyani, M.R. Pandari, F. Jahangiri, A.R. Niknam, R. Massudi; Shahid Beheshti Univ., Iran

R5-p07 Optical-to-THz conversion and scattering in metals
I.V. Oladyshkin, D.A. Fadeev, V.A. Mironov; Inst. of Applied Physics RAS, Russia

R5-p10 Filamentation of four beams under focusing in air
V.A. Andreeva1, A.A. Ionin2, O.G. Kosareva1, D.V. Mokrousova2,3, N.A. Panov1, A.B. Savel'ev1, L.V. Seleznev2, D.E. Shipilo1, E.S. Sunchugasheva2,3; 1 - Lomonosov Moscow State Univ., 2 - Lebedev Physical Inst. RAS, 3 - Moscow Inst. of Physics and Technology, Russia

R5-p11 PIC simulation and physical interpretation of the formation and evolution of an electrostatic shock in a collisionless plasma produced by a fs laser pulse
A. Nechaev1, M. Garasev1,2, V. Kocharovsky1; 1 - Inst. of Applied Physics RAS, 2 - Lobachevsky State Univ. of Nizhny Novgorod, Russia

Session: R6: Lasers for Satellite Ranging Systems, Space Geodesy, and Global Navigation

R6-01 New one-way and two-way precision radio-laser ranging systems to increase the accuracy of global space geodesy and navigation systems
M.A. Sadovnikov, A.A. Chubykin, V.D. Shargorodskiy; OJSC "RPC "Precision Systems and Instruments", Russia

R6-03 High-energy, high repetition rate regenerative amplifiers at 2 µm
U. Griebner, L. von Grafenstein, M. Bock, T. Elsaesser; Max Born Inst., Germany

R6-04 Russian Lunar Laser Rangefinder with millimeter accuracy
I.A. Grechukhin1, E.A. Grishin1, O.A. Ivlev1, A.F. Kornev2, A.A. Mak2, M.A. Sadovnikov1, V.D. Shargorodsky1; 1 - OJSC "RPC "Precision Systems and Instruments", 2 - ITMO Univ., Russia

R6-05 100 ps 360 mJ 200 Hz Nd:YAG laser for the Lunar Laser Ranging
R.V. Balmashnov, Y.V. Katsev, A.F. Kornev, I.G. Kuchma, D.O. Oborotov; ITMO Univ., Russia

R6-07 System for transmitting energy and information using laser radiation for control of the shape of large space-based antennas
A.S.Boreysho, L.B.Kochin, S.Yu.Strakhov; Baltic State Technical Univ., Russia

R6-09 Test data on high-precision laser equipment for synchronization of the time scales of distributed SLR-stations and GLONASS satellite
M.V. Baryshnikov, A.S. Zhabin, S.A. Martynov, M.A. Sadovnikov, A.A. Chubykin, V.D.

Shargorodskiy; OJSC "RPC "Precision Systems and Instruments", Russia

R6-10 Progress in optical space-based clocks: status, perspectives and applications
A.V. Kovalev, V.M. Polyakov, A.A. Mak; ITMO Univ., Russia

R6-11 Multifactor optimization of the CPT miniature quantum frequency standards
K.A. Barantsev, A.N. Litvinov, E.N. Popov, V.M. Petrov; Peter the Great St.Petersburg Polytechnic Univ., Russia

R6-12 Retroreflectors using a birefringent wedge for efficient velocity aberration compensation
V.P. Vasiliev; OJSC "RPC "Precision Systems and Instruments", Russia

Session: R7: Lasers in Environmental Monitoring

R7-01 Application of tunable diode laser absorption spectroscopy for planetary studies, on lander board for planned missions to Moon, Mars and Venus
I.I. Vinogradov1, V.V. Barke1, V.A. Kazakov1, Yu.V. Lebedev1, A.V. Rodin1,2, O.Z. Roste1, O.V. Benderov2, A.Yu. Klimchuk2, V.M. Semenov2, A.A. Zakharova2, A.V. Kalyuzhnyi3, A.I. Nadezhdinskii4, Ya.Ya. Ponurovskiy4, V.V. Spiridonov4, J. Cousin5, G. Durry5, L. Joly5; 1 - Space Research Inst. RAS, Russia, 2 - Moscow Inst. of Physics and Technology, Russia, 3 - Special Design Bureau of Space Device Engineering of IKI RAS, Russia, 4 - Prokhorov General Physics Inst. RAS, Russia, 5 - Univ. de Reims, France

R7-04 Ice thickness measurements by Raman & Rayleigh scattering technique
S.M. Pershin1,4, V.N. Lednev1,2, R.N. Yulmetov1,3, A.F. Bunkin4, M.Ya. Grishin1,5; 1 - Prokhorov General Physics Inst. RAS, Russia, 2 - National Univ. of Science and Technology MISiS, Russia, 3 - The Univ. Centre in Svalbard, Norway, 4 - Concern 'Agat', Russia, 5 - Moscow Inst. of Physics and Technology (State Univ.), Russia

R7-06 Coordinate measuring systems based on solid chip and microlasers
A.S. Grishkanich1, D. N. Redka2; 1 - ITMO Univ., 2 - St. Petersburg Electrotechnical Univ., Russia

R7-09 Conception of underwater femtosecond lidar
V.A.Semenova, V.G.Bespalov, A.P.Zhevlakov; ITMO Univ., Russia

R7-10 Laser techniques for monitoring physical processes in water under substantial refraction conditions
I.L. Raskovskaya, I.N. Pavlov, B.S. Rinkevichyus, A.V. Tolkachev, A.V. Vedyashkina; National Research Univ. "MPEI", Russia

R7-12 Simulation and processing techniques for lidar data
V.S. Goryainov1,2, A.A. Buznikov1, V.I. Chernook2, A.N. Vasilyev2, Y.A. Goldin3; 1 - Peter the Great St. Petersburg Polytechnic Univ., 2 - JSC Giprorybflot, 3 - Shirshov Inst. of Oceanology, Russia

R7-18 Remote determination of size of surface heterogeneity and displacements of diffusely scattering objects
D.V. Kiesewetter1, V.I. Malyugin1, N.V. Ilyin1, Ch. Sun2; 1 - St. Petersburg Politechnic Univ., Russia, 2 - Dalian Univ. of Technology, China

R7-24 Real-time automatic recognition of solids using laser-induced breakdown spectroscopy
V.F. Lebedev, P.S. Makarchuk; ITMO Univ., Russia

R7-25 Lidar scanning module for remote environmental monitoring
V.V. Elizarov, A.S. Grishkanich, S.V. Kascheev, A.A. Mak, A.P. Zhevlakov; ITMO Univ., Russia

R7-p03 Use of adaptive nonlinear Zernike filter in phase-contrast technique for registration of weak absorption of the medium

E.L. Bubis1, V.V. Lozhkarev1, I.V. Kuzmin1, Yu.A. Mamaev1, V.O. Martynov1, A.I. Smirnov1,2, A.N. Stepanov1,2; 1 - Inst. of Applied Physics RAS, 2 - Lobachevsky State Univ., Russia

R7-p04 About Zernike method visualization of transparent structures by laser beam reflection from thin layer of oil by thermo-capillary convection
E. Bubis; Inst. of Applied Phys. RAS, Russia

R7-p05 Influence of physical factors on the zero drift of laser gyroscope at displacement of the optical path
Yu.Yu. Broslavets, E.A. Polukeev, A.A. Fomtchev; Moscow Inst. of Physics and Technology (State Univ.), Russia

R7-p06 Photoactivation of gibberellin influenced by laser radiation on the surface of plant tissues
A.A. Yakovlev1,2, A.S. Durova1,2, A.S. Grishkanich2, S.V. Kascheev2, A.A. Mak2, J.S. Ruzankina2; 1 - St. Petersburg State Forest Technical Univ., 2 - ITMO Univ., Russia

R7-p07 The concept of building a high-sensitive laser sensor for detection of iodine isotopes
V.V. Elizarov, Y.K Chubchenko, A.S. Grishkanich, S.V. Kascheev, L.A. Konopelko, A.A. Mak, A.P. Zhevlakov; ITMO Univ., Russia

R7-p08 Increase of corrosion resistance based on photonics methods
J.S. Ruzankina1, S.V. Kascheev1, O.S. Vasilyev1,2, V.A. Parfenov1,3; 1 - ITMO Univ., 2 - LLC "Laser center", 3 - St.Petersburg State Electrotechnical Univ., Russia

R7-p10 The investigation of aging process of writing inks printed on paper using Raman spectroscopy
K.O. Gorshkova1, I.I. Tumkin1, A.S. Tver'yanovich1, E.R. Rossinskaya2, V.A. Kochemirovsky1; 1 - St. Petersburg State Univ., 2 - Kutafin Moscow State Univ. of Law, Russia

R7-p11 Eye-safe DPSSL-based TOF-camera for geodesy
A.V. Kovalev, V.M. Polyakov, V.A. Buchenkov; ITMO Univ., Russia

R7-p12 Imaging of hidden objects in millimeter wavelength range
G.S. Rogozhnikov, I.V. Mishina; RFNC - VNIIEF, Russia

R7-p14 Self-visualization and self-inverting of objects and structures when focusing spatially-phase-modulated laser radiation in weakly absorbing air environment
E.L. Bubis1, A.M. Kiselev1, I.V. Kuzmin1, S.A. Gusev2, E.V. Skorohodov2; 1 - Inst. of Applied Physics RAS, 2 - Inst. for Physics of Microstructures RAS, Russia

R7-p15 Detecting of thin oil films on water surface via UV filaments
A.A. Ionin1, D.V. Mokrousova1,2, L.V. Seleznev1, D.V. Sinitsyn1, E.S. Sunchugasheva1,2; 1 - Lebedev Physical Ins. RAS, 2 - Moscow Inst. of Physics and Technology, Russia

Session: R8: Nonlinear Photonics: Fundamentals and Applications

R8-03 Self-pulsating nonlinear systems via dissipative parametric instability
A.M. Perego1,2, N. Tarasov1,3,4, D.V. Churkin1,3,4, S.K. Turitsyn1,4, K. Staliunas2,5; 1 - Aston Inst. of Photonic Technologies, Aston Univ., United Kingdom, 2 - Univ. Politècnica de Catalunya, Spain, 3 - Inst. of Computational Technologies SB RAS, Russia, 4 - Novosibirsk State Univ., Russia, 5 - Inst. Catalana de Recerca i Estudis Avançats, Spain

R8-04 Generation in visible range using second harmonic of random distributed feedback fiber laser
E.I. Dontsova1, S.I. Kablukov1, I.D. Vatnik1,2, S.A. Babin1,2; 1 - Inst. of Automation and Electrometry, 2 - Novosibirsk State Univ., Russia

R8-05 Broad green generation using adiabatically chirped chi(2) nonlinear photonic crystals
H.-J. Lee1, C.-M. Lai2, W.-S. Tsai3, A.-H. Kung4, L.-H. Peng1; 1 - National Taiwan Univ., 2 - Ming Chuan Univ., 3 - National Chi Nan Univ., 4 - Academia Sinica and National Tsing Hua Univ., China

R8-06 Towards three octave-spanning mid-IR supercontinuum generation in chalcogenide fibers with two zero dispersion wavelengths
E.A. Anashkina1, V.S. Shiryaev2, G.E. Snopatin2, A.V. Kim1; 1 - Inst. of Applied Physics RAS, 2 - Inst. of Chemistry of High-Purity Substances RAS, Russia

R8-09 Towards generation of multicolor dissipative solitons in telecom range
A.E. Bednyakova1,2, D.S. Kharenko3,1, E.V. Podivilov3,1, M.P. Fedoruk1,2, A.A. Apolonski3,4, S.A. Babin3,1, S.K. Turitsyn5,1; 1 - Novosibirsk State Univ., Russia, 2 - Inst. of Computational Technologies SB RAS, Russia, 3 - Inst. of Automation and Electrometry SB RAS, Russia, 4 - Ludwig-Maximilians-Univ. Muenchen and Max-Planck-Inst. fuer Quantenoptik, Germany, 5 - Aston Univ., United Kingdom

R8-12 Three-photon spontaneous downconversion in highly nonlinear germania-silica optical fiber waveguides
S.V. Tsvetkov1, K.G. Katamadze1,2, N.A. Borshchevskaia1,2, A.A. Sysolyatin1, M.V. Fedorov1, S.P. Kulik1,2, M.Yu. Salganskii3, A.S. Belanov4; 1 - Prokhorov General Physics Inst. RAS, 2 - Lomonosov Moscow State Univ., 3 - Inst. of Chemistry of High-Purity Substances RAS, 4 - Moscow State Univ. of Information Technologies, Radioengineering and Electronics, Russia

R8-13 Soliton fission and fusion in dispersion oscillating fiber and correlation properties of the pulses
L. Melnikov; Gagarin Saratov State Technical Univ., Saratov Branch of Kotel'nikov Inst. of Radioengineering and Electronics RAS, Russia

R8-14 Dissipative Faraday instability mode-locking in a Raman fiber laser
N. Tarasov1,2, A.M. Perego1,3, D.V. Churkin1,2,4, K. Staliunas3,5, S.K. Turitsyn1,4; 1 - Aston Univ., United Kingdom, 2 - Inst. of Computational Technologies SB RAS, Russia, 3 - Univ. Politècnica de Catalunya, Spain, 4 - Novosibirsk State Univ., Russia, 5 - Inst. Catalana de Recerca i Estudis Avançats, Spain

R8-16 Mid-IR ultrashort Raman solitons and red-shifted dispersive waves in suspended-core tellurite fiber
E.A. Anashkina1, A.V. Andrianov1, V.V. Dorofeev2, A.V. Kim1; 1 - Inst. of Applied Physics RAS, 2 - Inst. of Chemistry of High-Purity Substances RAS, Russia

R8-17 Broadband femtosecond fiber laser with ultrahigh repetition rate in the telecommunication range
A.V. Andrianov1, V.M. Mylnikov1,2, M.Yu. Koptev1, S.V. Muravyev1, A.V. Kim1; 1 - Inst. of Applied Physics RAS, 2- Nizhny Novgorod State Univ., Russia

R8-18 Femtosecond pulse propagation in the negative curvature hollow-core revolver fiber
A.A. Krylov, Yu.P. Yatsenko, A.D. Pryamikov, A.F. Kosolapov, A.N. Kolyadin, A.V. Gladyshev, I.A. Bufetov; Fiber Optics Research Center RAS, Russia

R8-19 Short cavity Brillouin random laser
S.M. Popov1, O.V. Butov1, Yu.K. Chamorovsky1, P. Mégret2, I.O. Zolotovskii3, A.A. Fotiadi2,3,4; 1 - Inst. of Radio Engineering and Electronics RAS, Russia, 2 - Univ. of Mons, Belgium, 3 - Ulyanovsk State Univ., Russia, 4 - Ioffe Inst., Russia

R8-21 Optical trigger based on a fiber-coupled liquid crystal
S.I. Trashkeev1,2, B.N. Nyushkov1,2, R.V. Galev1,3, D.B. Kolker1,2, V.I. Denisov1; 1 - Inst. of Laser Physics SB RAS, 2 - Novosibirsk State Univ., 3 - Khristianovich inst. of Theoretical and Applied Mechanics SB RAS, Russia

R8-23 One-way quantum key distribution scheme
A.V. Duplinskiy1,2, V.E. Ustimchik1,2, Y.V Kurochkin1; 1 - Russian Quantum Center, 2 - Moscow Inst. of Physics and Technology, Russia

R8-27 Nonlinear refractive index for crystals in terahertz spectral range

S.A. Kozlov1, A.A. Drozdov1, K. Dolgaleva2, R.W. Boyd2; 1 - ITMO Univ., Russia, 2 - Univ. of Ottawa, Canada

R8-29 A method for nonlinear-optical calibration of the terahertz wave spectral brightness
G.Kh. Kitaeva1, V.V. Kornienko1, Yu.A. Mityagin2, A.N. Penin1; 1 - Lomonosov Moscow State Univ., 2 - Lebedev Physical Inst. RAS, Russia

R8-30 Polarization of THz radiation generated during two-color filamentation of arbitrarily polarized laser pulses
V.A. Andreeva1, M.N. Esaulkov2, N.A. Panic1, P.M. Solyankin1, V.A. Makarov1, D.E. Shipilo1, A.P. Shkurinov1,2, O.G. Kosareva1, S.L. Chin3; 1 - Lomonosov Moscow State Univ., Russia, 2 - Inst. on Laser and Information Technologies RAS, Russia, 3 - Univ. Laval, Canada

R8-31 Optimization of the laser plasma source of terahertz radiation and interferometric study of its spatio-temporal field distribution
A.A. Ushakov1,2,3, P.A. Chizhov1, R.V. Volkov2,3, V.V. Bukin1, S.V. Garnov1, A.B. Savel'ev2,3; 1 - Prokhorov General Physics Inst. RAS, 2 - Lomonosov Moscow State Univ., 3 - International Laser Center, Lomonosov Moscow State Univ., Russia

R8-32 Femtosecond supercontinuum generation and superfilamentation in liquids and supercritical fluids
V.N. Bagratashvili, V.M. Gordienko, E.I. Mareev, N.V. Minaev, F.V. Potemkin, A.V. Ragulskaya; Lomonosov Moscow State Univ., Russia

R8-34 New results for spontaneous symmetry breaking in nonlinear optics and matter waves
B.A. Malomed; Tel Aviv Univ., Israel

R8-35 Population inversion gratings: creation and control with few-cycle non-overlapping optical pulses
R.M. Arkhipov1, M.V. Arkhipov2, I. Babushkin3,4, N.N. Rosanov1,5; 1 - ITMO Univ., Russia, 2 - St. Petersburg State Univ., Russia, 3 - Max Born Inst., Germany, 4 - Leibniz Univ. Hannover, Germany, 5 - Vavilov State Optical Inst., Russia

R8-36 Formation of localized states of electromagnetic radiation in dynamic cavities
N.N. Rosanov1,2,3, E.G. Fedorov1,4; 1 - Vavilov State Optical Inst., Russia, 2 - ITMO Univ., Russia, 3 - Ioffe Inst., Russia, 4 - Technion-Israel Inst. of Technology, Israel

R8-37 Interaction of spatial and temporal cavity solitons in mode-locked lasers and passive cavities
D.V. Turaev1,2, A.G. Vladimirov2,3, S.V. Zelik2,4; 1 - Imperial College London, United Kingdom, 2 - Lobachevsky Univ. of Nizhny Novgorod, Russia, 3 - Weierstrass Inst., Germany, 4 - Univ. of Surrey, United Kingdom

R8-38 Self-induced transparency coherent mode-locking in lasers
R.M. Arkhipov1, M.V. Arkhipov2, I. Babushkin3,4, N.N. Rosanov1,5; 1 - ITMO Univ., Russia, 2 - St. Petersburg State Univ., Russia, 3 - Max Born Inst., Germany, 4 - Leibniz Univ. Hannover, Germany, 5 - Vavilov State Optical Inst., Russia

R8-39 Rotating three-dimensional vortex dissipative optical soliton
N.A. Veretenov1,2, N.N. Rosanov1,2,3, S.V. Fedorov1,2; 1 - Vavilov State Optical Inst., 2 - ITMO Univ., 3 - Ioffe Inst., Russia

R8-41 Dissipative Kerr combs in microresonators: from chaos to solitons
M.L. Gorodetsky; Lomonosov Moscow State Univ., Russian Quantum Center, Russia

R8-42 Phase-dependent stimulated emission in a polymer
M. Saito, Y. Nishimura; Ryukoku Univ., Japan

R8-44 Hysteretic behavior of matter-wave solitons in dynamic cavities
N.N. Rosanov1,2,3, N.V. Vysotina1; 1 - Vavilov State Optical Inst., 2 - ITMO Univ., 3 - Ioffe Inst., Russia

R8-45 Ultra-low-power polariton solitons in semiconductor waveguides and microcavities
P.M. Walker1, C. Whittaker1, L. Tinkler1, M. Sich1, E. Cancelliery1, D.V. Skryabin2,3, A. Gorbach2, A. Yulin3, B. Royall1 , I. Farrer4,5, D.A. Ritchie4, M.S. Skolnick1, D.N.

Krizhanovskii1; 1 - Univ. of Sheffield, United Kingdom, 2 - Univ. of Bath, United Kingdom, 3 - ITMO Univ., Russia, 4 - Univ. of Cambridge, United Kingdom, 5 - Present address: Univ. of Sheffield, United Kingdom

R8-46 Nonlinear regime of surface polaritons including exciton polaritons in organic materials
B.D. Fainberg1,2, G. Li3; 1 - Holon Inst. of Technology, Israel, 2 - Tel Aviv Univ., Israel, 3 - Northwestern Univ., United States

R8-47 The role of ferroelectric domain wall in nonlinear Cerenkov frequency up-conversion in 1D nonlinear crystal
N. An1, X. Chen2; 1 - Shanghai Inst. of Laser Plasma, 2 - Shanghai Jiao Tong Univ., China

R8-48 Low-threshold 1064 to 1907 nm hydrogen Raman laser based on hollow-core fiber
A.V. Gladyshev, A.F. Kosolapov, A.N. Kolyadin, G.K. Alagashev, A.D. Pryamikov, Yu.P. Yatsenko, A.S. Biriukov, I.A. Bufetov, E.M. Dianov; Fiber Optics Research Center RAS, Russia

R8-49 Two-dimensional vortex dissipative optical solitons in polariton laser with saturable absorber
S.V. Fedorov1,2, N.N. Rosanov1,2,3, I.G. Savenko2; 1 - Vavilov State Optical Inst., 2 - ITMO Univ., 3 - Ioffe Inst., Russia

R8-51 Quasi-phase-matching second harmonic generation caused by pendulum effect in photonic crystals
D.A. Kopylov1, L.V. Dergacheva1, A.I. Maydykovskiy1, S.E. Svyakhovskiy1, V.O. Kompanets2, S.V. Chekalin2, V.A. Bushuev1, T.V. Murzina1, B.I. Mantsyzov1; 1 - Lomonosov Moscow State Univ., 2 - Inst. for Spectroscopy RAS, Russia

R8-52 Phase-matched second harmonic generation in one-dimensional photonic crystals in the Laue geometry
V.B. Novikov, B.I. Mantsyzov, A.I. Maydykovskiy, T.V. Murzina; Lomonosov Moscow State Univ., Russia

R8-53 Frequency conversion of multi-line carbon monoxide laser in PbIn6Te10 crystal
A.A. Ionin1, I.O. Kinyaevskiy1, Yu.M. Klimachev1, A.Yu. Kozlov1, A.A. Kotkov1, V.V. Badikov2, K.V. Mitin3; 1 - Lebedev Physical Inst. RAS, 2 - Kuban State Univ., 3 - Astrophysica, National Center for Laser Systems & Complexes, Russia

R8-54 Stimulated low-frequency Raman scattering in viruses
O.V. Karpova1, A.D. Kudryavtseva2, V.N. Lednev3, V.B. Oshurko4, S.M. Pershin3, E.K. Petrova1, N.V. Tcherniega2, K.I. Zemskov2; 1 - Lomonosov Moscow State Univ., 2 - Lebedev Physical Inst. RAS, 3 - Prokhorov General Physics Inst. RAS, 4 - Moscow Technical Univ. "STANKIN", Russia

R8-55 Extraordinary time-depended processes in the parametric interaction of counter-propagating waves
V.A. Tkachenko1, A.K. Popov2, S.A. Myslivets3, V.V. Slabko1; 1 - Siberian Federal Univ., Russia, 2 - Purdue Univ., United States, 3 - Kirensky Inst. of Physics SB RAS, Russia

R8-56 Wide tunable BaGa4Se7 optical parametric oscillator pumped by Nd:YLF laser
N. Kostyukova1,2, A. Bobylev1, A. Boyko1,2, K. Zenov1, A. Shadrintseva1, N. Tretyakova1, V. Badikov4, D. Badikov4, D. Kolker1,2,3; 1 - Special technology LTD, 2 - Novosibirsk State Univ., 3 - Inst.of Laser Physics SB RAS, 4 - Kuban State Univ., Russia

R8-57 Optical nonlinear response of liquid crystalline polymer
I.A. Budagovsky1, V.N. Ochkin1, S.A. Shvetsov1,2, A.S. Zolot'ko1, A.Yu. Bobrovsky3, N.I. Boiko3, V.P. Shibaev3; 1 - Lebedev Physical Ins. RAS, 2 - Moscow Inst. of Physics and Technology, 3 - Moscow State Univ., Russia

R8-58 Time-resolved non-linear optical response and photosensitivity of glassy semiconductors
E.A. Romanova1, Yu.S. Kuzyutkina1, S. Guizard2, T.M. Benson3, A.B. Seddon3; 1 - Saratov National Research State Univ., Russia, 2 - Ecole Polytechnique, France, 3 - Univ. of Nottingham, United Kingdom

R8-59 Strong saturable-absorption effect in subphthalocyanines caused by plasmonic nanoparticles
A.V. Zasedatelev1,2, T.V. Dubinina3,4, V.I. Krasovskii1,2, A.B. Karpo2; 1 - National Research Nuclear Univ. "MEPhI", 2 - Prokhorov General Physics Inst. RAS, 3 - Lomonosov Moscow State Univ., 4 - Inst. of Physiologically Active Compounds RAS, Russia

R8-61 Giant Goos-Hanchen effect and focusing of Gaussian light beam by one-dimensional photonic crystal with modulated band gap
S.E. Svyakhovskiy, E.A. Kekkonen, A.A. Konovko, A.V.Andreev, T.V. Murzina; Lomonosov Moscow State Univ., Russia

R8-62 Spectral dependence of the (2+1) resonance-enhanced multiphoton ionization (REMPI) of atmospheric oxygen around 248 nm laser wavelength
A.V. Shutov1, S.A. Goncharov2, A.O. Levchenko1, S.V. Ryabchuk2, I.V. Smetanin1, N.N. Ustinovskii1, V.D. Zvorykin1; 1 - Lebedev Physical Inst. RAS, 2 - National Research Nuclear Univ. "MEPhI", Russia

R8-63 Two-photon absorption bandwidth determination in the 420-750 nm wavelength range for ZnTe and ZnSe crystals
M.O. Osipova, E.A. Makarov, V.G. Bespalov; ITMO Univ., Russia

R8-p01 Output beam quality improvement in broad-area class-B lasers subject to optical injection
A.V. Pakhomov1,2, N.E. Molevich1,2, A.A. Krents1,2, D.A. Anchikov1; 1 - Samara State Aerospace Univ., 2 - Lebedev Physical Inst., Samara, Russia

R8-p02 Quantum entanglement of vectorial optical self-diffraction in ion-implanted silicon quantum dots
C. Torres-Torres1, J. Bornacelli2, R. Rangel-Rojo3, A. Oliver2; 1 - National Polytechnic Inst., 2 - National Autonomous Univ. of Mexico, 3 - Optics Dept., CICESE, Mexico

R8-p03 Polarizing properties of Ti-indiffused lithium niobate optical waveguides
M. Parfenov1, P. Karavaev2, P. Agruzov2, I. Ilichev2, A. Shamray1,2,3; 1 - Peter the Great St. Petersburg Polytechnic Univ., 2 - Ioffe Inst., 3 - ITMO Univ., Russia

R8-p05 Generation of high extinction optical pulses by means of LiNbO3 Mach-Zehnder modulators
V.V. Lebedev1, A.V. Tronev1,2, A.N. Petrov1, P.M. Agruzov1, I.V. Ilichev1, A.V. Shamray1,2,3; 1 - Ioffe Inst., 2 - ITMO Univ., 3 - Peter the Great St. Petersburg Polytechnic Univ., Russia

R8-p06 Threshold effect in the substance with carbon nanotubes and graphene oxide within optical limiting
M.S. Savelyev, A.Yu. Gerasimenko, S.A. Tereshchenko, V.M. Podgaetsky; National Research Univ. of Electronic Technology (MIET), Russia

R8-p07 Nonlinear band-structure of an exciton-polariton condensate in a one-dimensional lattice
I.Yu. Chestnov1, A.V. Yulin2, A.P. Alodjants1,2, I.A. Shelykh3, O.A. Egorov4; 1 - Stoletovs Vladimir State Univ., Russia, 2 - ITMO Univ., Russia, 3 - Univ. of Iceland, Iceland, 4 - Friedrich-Schiller-Univ. Jena, Germany

R8-p08 Laser processing of materials in the multiple filamentation mode
K.S. Khorkov, D.A. Kochuev, D.V. Abramov, A.S. Chernikov, S.M. Arakelian, V.G. Prokoshev; Stoletovs Vladimir State Univ., Russia

R8-p09 Non-trivial regimes of a polariton Rabi oscillator
N.S. Voronova1,2, A.A. Elistratov3, Yu.E. Lozovik4; 1 - National Research Nuclear Univ. MEPhI, 2 - Russian Quantum Center, 3 - Inst. for Nanotechnologies in Microelectronics RAS, 4 - Inst. for Spectroscopy RAS, Russia

R8-p12 Influence of clasic noise on entangled state formation in nonequlibrium systems
V.O. Martynov, V.A. Mironov, L.A. Smirnov; Inst. of Applied Physics RAS, Russia

R8-p13 Temperature dependence of SHG efficiency by focusing of laser radiation
A.L. Bondarenko1, S.G. Grechin2, D.G. Kochiev3, A.N. Sharikov3; 1 - Space Research Inst. RAS, 2 - Bauman Moscow State Technical Univ., 3 - Prokhorov General Physics Inst. RAS, Russia

R8-p14 Damage of an AR-coated LBO crystal by laser pulses of microsecond duration
S.G. Grechin1, D.G. Kochiev2, A.E. Kokh3, A.N. Sharikov2; 1 - Bauman Moscow State Technical Univ., 2 - Prokhorov General Physics Inst. RAS, 3 - Sobolev Inst. of Geology and Mineralogy SB RAS, Russia

R8-p15 Numerical simulation of image inversion of small-scale opaque object by the phase contrast technique with adaptive nonlinear Kerr filter
E.L. Bubis1, V.O. Martynov1, A.A. Murzanev1, V.V. Lozhkarev1, O.A. Malshakova1, A.N. Stepanov1,2, A.I. Smirnov1,2; 1 - Inst. of Applied Physics RAS, 2 - Lobachevski State Univ., Russia

R8-p16 Advanced scheme of amplifier similariton laser
D.A. Korobko1, O.G. Okhotnikov1,2, I.O. Zolotovskii1; 1 - Ulyanovsk State Univ. Russia, 2 - Tampere Univ. of Technology, Finland

R8-p18 Raman gain coefficients in potassium-gadolinium tungstate at the wavelength of 532 nm
R. Chulkov1, V. Markevich1, V. Orlovich1, M. El-Desouki2; 1 - Stepanov Inst. of Physics NASB, Belarus, 2 - King Abdulaziz City for Science and Technology (KACST), Saudi Arabia

R8-p19 Dispersive distortions of signals in an analog fiber-optic link with direct intensity modulation
V.V. Shcherbakov1, A.F. Solodkov1, A.A. Zadernovsky2; 1 - JSC "Center VOSPI", 2 - Technological Univ. MIREA, Russia

R8-p20 Approach for producing the nanocrystalline sitall samples with distributed refractive index
I.L. Vinogradova, A.I. Salihov, R.V. Kutluyarov, A.Kh. Sultanov; Ufa State Aviation Technical Univ., Russia

R8-p21 Numerical modeling of the dynamics of bidirectional long ring Raman fiber laser
S.V. Sukhanov, L.A. Melnikov, Yu.A. Mazhirina; Gagarin State Technical Univ. of Saratov, Russia

R8-p22 LuAB crystal for frequency conversion
Yu.D. Arapov, S.G. Grechin, I.V. Kasianov; RFNC-VNIITF, Russia

R8-p29 Optical vortex generation using photoinduced orientational defects in nematic liquid crystals
I.A. Budagovsky1, S.A. Shvetsov1,2, M.P. Smayev1, A.S. Zolot'ko1, M.I. Barnik3; 1 - Lebedev Physical Inst. RAS, 2 - Moscow Inst. of Physics and Technology, 3 - Shubnikov Inst. of Crystallography RAS, Russia

R8-p30 Nonlinear polarization in comb-spectroscopy
S. Uvarova, A. Antipov, S. Pulkin, E. Borisov, V. Arnautov; St. Petersburg State Univ., Russia

R8-p32 Swift C5+ ion irradiated optical ridge waveguides in nonlinear Yb:YCOB crystal
Ya. Cheng1, Sh. Zhou2, F. Chen1; 1 - Shandong Univ., China, 2 - Inst. of Ion Beam Physics and Materials Research, Germany

R8-p33 Induced modulation instability of surface plasmon polaritons in an ultra-thin metal film
S. Moiseev1,2, D. Korobko1, I. Zolotovskii1; 1 - Ulyanovsk State Univ., 2 - Kotel'nikov Inst. of RadioEngineering and Electronics RAS, Russia

R8-p34 Numerical modeling of gyroscopic effect in bidirectional ultrafast erbium-doped fibre laser
S. Sukhanov1,2, L. Melnikov1, M. Chernysheva2; 1 - Gagarin State Technical Univ. of Saratov, Russia, 2 - Aston Univ., United Kingdom

R8-p35 Collision of 3D bipolar light pulses in an array of carbon nanotubes
A.V. Zhukov1, R. Bouffanais1, B.A. Malomed2, H. Leblond3, D. Mihalache4,5, E.G. Fedorov6,7, N.N. Rosanov7,8,9, M.B. Belonenko10,11; 1 - Singapore Univ. of Technology and Design, Singapore, 2 - Tel Aviv Univ., Israel, 3 - Univ. of Angers, France, 4 - Academy of Romanian Scientists, Romania, 5 - Horia Hulubei National Inst. of Physics and Nuclear Engineering, Romania, 6 - Technion-Israel Inst. of Technology, Israel, 7 - Vavilov State Optical Inst., Russia, 8 - ITMO Univ., Russia, 9 - Ioffe Inst., Russia, 10 - Volgograd Inst. of Business, Russia, 11 - Volgograd State Univ., Russia

Session: R9: Optical Nanomaterials

R9-04 Self-catalyzed growth of GaAs nanowires on silicon by HVPE
Zh. Dong1,2, Ya. André1,2,3, V. Dubrovskii4,5, C. Bougerol6,7, G. Monier1,2, R. Ramdani1,2, A. Trassoudaine1,2,8, Ch. Leroux9,10, D. Castelluci1,2, E. Gil1,2,3; 1 - Inst. Pascal, France, 2 - CNRS, UMR 6602, France, 3 - ITMO Univ., Russia, 4 - St. Petersburg Academic Univ., Russia, 5 - Ioffe Inst., Russia, 6 - Univ. Grenoble Alpes, France, 7 - CNRS, Inst. Néel, France, 8 - Univ. d'Auvergne, France, 9 - Univ. du Sud Toulon-Var, France, 10 - CNRS, UMR 6242, France

R9-05 MBE growth and optical properties of GaN nanowires on SiC/Si(111) hybrid substrate
R.R. Reznik1,2, K.P. Kotlyar2, I.V. Ilkiv1,2, I.P. Soshnikov2,3, S.A. Kukushkin6, A.V. Osipov6, E.V. Nikitina2, G.E. Cirlin1,2,4,5; 1 - St-Petersburg Academic Univ., 2 - Peter the Great St.Petersburg Polytechnic Univ., 3 - Ioffe Inst., 4 - Inst. for Analytical Instrumentation RAS, 5 - St.Petersburg State Univ., 6 - Inst. of Problems of Mechanical Engineering RAS, Russia

R9-09 Metal mesoscopic contact as a source of plasmons for plasmonic nanocircuitries
A.V. Uskov1,2, I.V. Smetanin1, I.E. Protsenko1, J.B. Khurgin3, M. Buret4, A. Bouhelier4; 1 - Lebedev Physical Inst., Russia, 2 - ITMO Univ., Russia, 3 - John Hopkins Univ., United States, 4 - Univ. Bourgogne Franche-Comte, France

R9-10 Phase and amplitude modulations of THz waves in carbon-based derivatives
M. Irfan, J.-H. Yim, Y.-D. Jho; Gwangju Inst. of Science and Technology, South Korea

R9-12 Laser formation of the metal-carbon islands thin films for optical application
A. Kucherik1, A. Antipov1, S. Arakelian1, S. Kutrovskaya1, A. Osipov1, T. Vartanyan2, A. Povolotckaia3, A. Povolotskiy3, A. Manshina3; 1 - Stoletov Vladimir State Univ., 2 - ITMO Univ., 3 - St. Petersburg State Univ., Russia

R9-13 Saturation parameters studies of carbon nanotube-based thin-film saturable absorbers for erbium fiber laser mode-locking
A.A. Krylov1, S.G. Sazonkin2, N.R. Arutyunyan3,4, V.V. Grebenyukov3, A.S. Pozharov3, D.A. Dvoretskiy2, A.B. Pnev2, V.E. Karasik2, E.D. Obraztsova3,4, E.M. Dianov1; 1 - Fiber Optics Research Center RAS, 2 - Bauman Moscow State Technical Univ., 3 - Prokhorov General Physics Inst. RAS, 4 - National Research Nuclear Univ. MEPhI, Russia

R9-14 Ferrofluid as promising magnetically controlled material for optofluidics and microstrutured fiber-based sensing
A.V. Prokofiev1,2, A.V. Varlamov1,2, P.M. Agruzov1, I.V. Pleshakov1,2, E.E. Bibik3, S.I. Stepanov4, A.V. Shamray1,2; 1 - Peter the Great St.Petersburg Polytechnic Univ., Russia, 2 - Ioffe Inst., Russia, 3 - St. Petersburg State Inst. of Technology (Technical Univ.), Russia, 4 - CICESE, Mexico

R9-15 Novel hybrid materials based on various oxyquinoline organic phosphour complexes and oxyfluoride glass
M.O. Anurova, C.V. Ermolaeva, O.B. Petrova, A.V. Khomyakov, A.A. Akkuzina, R.I. Avetisov, I.Ch. Avetissov; Mendeleev Univ. of Chemical Technology, Russia

R9-16 Laser correlation spectroscopy and nonlinear magnetooptic response of structures formed by nanoparticles in magnetic fluid
E.K. Nepomniashchaia1, A.V. Prokofiev1,2, E.T. Aksenov1, I.V. Pleshakov1,2, E.E. Bibik3, E.N. Velichko1, Yu.I. Kuzmin1,2; 1 - Peter the Great Saint Petersburg Polytechnic Univ., 2 - Ioffe Inst., 3 - St. Petersburg State Inst. of Technology, Russia

R9-p02 THz-wave gain in asymmetric graphene-SiC hyperbolic metamaterial
O.N. Kozina1, L.A. Melnikov2, A.S. Zotkina2, I.S. Nefedov3; 1 - Kotel'nikov Inst. of RadioEngineering and Electronics RAS, Saratov Branch, Russia, 2 - Gagarin State Technical Univ., Russia, 3 - Aalto Univ., Finland

R9-p03 Laser-assisted deposition of the bimetal thin films with pre-difined optical and electrical properties
S. Kutrovskaya1, A. Antipov1, S. Arakelian1, A. Kucherik1, A. Osipov1, T. Vartanyan2, A. Istratov1, T. Itina3; 1 - Stoletov Vladimir State Univ., Russia, 2 - ITMO Univ., Russia, 3 - Hubert Curien Laboratory, France

R9-p05 The influence of the dipole-dipole interaction on the radiative properties of point-like impurity centers in Fabry-Perot microcavity
A.S. Kuraptsev, I.M. Sokolov; Peter the Great St. Petersburg Polytechnic Univ., Russia

R9-p07 Temperature dependent optical properties of the titanium nitride broadband perfect absorber
J. Wang, M. Zhu, J. Shao; Shanghai Inst. of Optics and Fine Mechanics CAS, China

R9-p10 The copper nanostructures produced by in situ laser synthesis reveal catalytic activity
D.I. Gordeychuk1, M.S. Panov1, I.I. Tumkin1, A.G. Kuzmin2, V.A. Kochemirovsky1, I.A. Balova1; 1 - St. Petersburg State Univ., 2 - Inst. for Analytical Instrumentation RAS, Russia

R9-p11 The nanostructured membrane investigation by optical methods
A.A. Mikhaylina1,2, A.V. Prikhodko2, O.I. Konkov2,3, N.N. Rozhkova1; 1 - Inst. of Geology Karelian Research Centre RAS, 2 - Peter the Great St. Petersburg Polytechnic Univ., 3 - Ioffe Inst., Russia

R9-p13 Quantum dots luminescence in the photonic cristal fibers modified with polymer layers
S.A. Pidenko1, S.D. Bondarenko1, A.A. Chibrova2,3, A.A. Shuvalov2,4, N.A. Burmistrova1, Y.S. Skibina2, I.Y. Goryacheva1,5; 1 - Saratov National Research State Univ., 2 - SPC Nanostructured Glass Technology Ltd, 3,4 - Saratov National Research State Univ., 5 - St.Petersburg State Univ., Russia

R9-p15 Eu3+-doped transparent lead fluoroborate glass-ceramics
T.S. Sevostjanova, E.V. Zhukova, A.V. Khomyakov, O.B. Petrova; Mendeleev Univ. of Chemical Technology, Russia

R9-p16 Yb3+-doped glasses and glass ceramics based on Bi2O3 and GeO2 in different proportions
I.V. Stepanova, A.V. Khomyakov; Mendeleev Univ. of Chemical Technology, Russia

R9-p17 Synthesis condition influence on stability of metal-organic phosphor based on 8-hydroxyquinoline
A.A. Akkuzina, A.V. Khomyakov, R.I. Avetisov, I.Ch. Avetissov; Mendeleev Univ. of Chemical Technology, Russia

R9-p18 Synthesis and study of efficient up-conversion luminophores based M1-x-yYbxEryF2+x+y (M = Ca, Ba) for biomedical applications
M.N. Mayakova1, E.O. Solovyeva2, R.G. Vahrenev3, S.V. Kuznetsov1, D.V. Pominova1, A.V. Ryabova1, V.V. Voronov1, P.P. Fedorov1; 1 - Prokhorov General Physics Inst. RAS, 2 - Mendeleev Univ. of Chemical Technology, 3 - Lomonosov Moscow State Univ., Russia

R9-p19 New type of nanocomposite material for SERS
N.V. Mitetelo, A.I. Maydykovskiy, S.E. Svyakhovskiy, A.A. Tepanov, A.D. Gartman, T.V. Murzina; Lomonosov Moscow State Univ., Russia

R9-p20 The obtaining and deposition of silicon nanoparticles: size control, luminescence in visible spectra
A. Osipov1, A. Kucherik1, S. Kutrovskaya1, A. Evlyukhin2, B. Chichkov2; 1 - Stoletov Vladimir State Univ., Russia, 2 - Laser Zentrum Hannover e.V., Germany

R9-p21 Optical properties of cyanine dyes in the nanoporous chrysotile asbestos
A.A. Starovoytov1, V.I. Belotitskii2, Yu.A. Kumzerov2, A.A. Sysoeva2; 1 - ITMO Univ., 2 - Ioffe Inst., Russia

R9-p22 Novel transparent glass-ceramics based on Co:Li(Al,Ga)5O8 nanocrystals for passive Q-switching of Er lasers
O.S. Dymshits1, A.A. Zhilin1, I.P. Alekseeva, M.Ya. Tsenter1, A.M. Malyarevich2, K.V. Yumashev2, V.V. Vitkin3, P.A. Loiko2, N.A. Skoptsov2, K.V. Bogdanov3, I.V. Glazunov2; 1 - NITIOM Vavilov State Optical Inst., Russia, 2 - Belarusian National Technical Univ., Belarus, 3 - ITMO Univ., Russia

R9-p23 Photodesorbtion of Rb atoms from glass and sapphire surfaces
P.A. Petrov1, A.S. Pazgalev2, T.A. Vartanyan1; 1 - ITMO Univ., 2 - Ioffe Inst., Russia

R9-p24 Glass-ceramics with Yb,Tm:YNbO4 nanocrystals: novel NIR-to-NIR upconversion phosphor
E.V. Vilejshikova1, P.A. Loiko1, O.S. Dymshits2, A.A. Zhilin2, I.P. Alekseeva2, M.Ya. Tsenter2, K.V. Yumashev1; 1 - Belarusian National Technical Univ., Belarus, 2 - NITIOM Vavilov State Optical Inst., Russia

Session: R10: Free Electron Lasers

R10-01 European XFEL: status and research instrumentation
S.L. Molodtsov; European XFEL GmbH, Technische Univ. Bergakademie Freiberg, Germany, ITMO Univ., Russia

R10-02 Ultrafast pump-probe laser for the European X-ray free-electron laser facility
M. J. Lederer, M. Pergament, M. Kellert, K. Kruse, J. Wang, G. Palmer, L. Wissmann, U. Wegner, M. Emons; European X-Ray Free-Electron Laser-Facility GmbH, Germany

R10-06 Temporal characterazation of FEL pulses
R. Ivanov, S. Düsterer, G. Brenner, S. Dziarzhytski; Deutsches Elektronen-Synchrotron DESY, Germany

R10-07 Novosibirsk high-power THz FEL facility
N.A. Vinokurov, V.S. Arbuzov, K.N. Chernov, I.V. Davidyuk, E.N. Dementyev, B.A. Dovzhenko, Ya.V. Getmanov, B.A. Knyazev, E.I. Kolobanov, A.A. Kondakov, V.R. Kozak, E.V. Kozyrev, V.V. Kubarev, G.N. Kulipanov, E.A. Kuper, I.V. Kuptsov, G.Ya. Kurkin, S.V. Motygin, V.N. Osipov, V.M. Petrov, L.E. Medvedev, V.K. Ovchar, A.M. Pilan, V.M. Popik, V.V. Repkov, T.V. Salikova, M.A. Scheglov, I.K. Sedlyarov, G.V. Serdobintsev, S.S. Serednyakov, O.A. Shevchenko, A.N. Skrinsky, S.V. Tararyshkin, V.G. Tcheskidov, A.G. Tribendis, P.D. Vobly; Budker Inst. of Nuclear Physics SB RAS, Russia

R10-08 Analytical approximate methods in optimization of optical systems for free-electron lasers
V.V. Kubarev; Budker Inst. of Nuclear Physics RAS, Novosibirsk State Univ., Russia

R10-09 Solid state spectroscopy with THz free electron lasers
M. Helm; Helmholtz-Zentrum Dresden-Rossendorf, Germany

R10-13 Reduction of the graphene oxide films by soft UV irradiation
M.K. Rabchinskii1, A.T. Dideikin1, M.V. Baidakova1,2, V.V. Shnitov1, I.I. Pronin1,2, D.A. Kirilenko1,2, P.N. Brunkov1,2, J. Walter3, S.L. Molodtsov2,3,4; 1 - Ioffe Inst.,Russia, 2 - ITMO Univ., Russia, 3 - Technische Univ. Bergakademie Freiberg, Germany, 4 - European XFEL GmbH, Germany

Session: S1: 8th International Symposium on High-Power Fiber Lasers and Their Applications. Fiber Lasers and Components

S1A-01 Raman fiber lasers with direct pumping by high-power laser diodes
S.A. Babin1,2, E.I. Zlobina1, S.I. Kablukov1; 1 - Inst. of Automation and Electrometry SB RAS, 2 - Novosibirsk State Univ., Russia

S1A-03 Acousto-optically Q-switched fiber-bulk hybrid Er:YAG and Ho:YAG lasers
O. Vershinin, S. Larin, I. Larionov, A. Pigarev, A. Surin; NTO IRE-Polus, Russia

S1A-04 2-μm hybrid lasers based on Tm3+:Lu2O3 ceramics in-band pumped by Raman-shifted erbium fiber lasers and their OPO frequency conversion
O. Antipov1, A. Novikov1, S. Larin2, I. Obronov2; 1 - Inst. of Applied Physics RAS, 2 - NTO "IRE-Polus", Russia

S1A-06 Single-mode broadband red fiber laser
O.A. Byalkovskiy1, V.A. Tyrtyshnyy1, E.S. Golubyatnikov1,2; 1 - NTO "IRE-Polus", 2 - Moscow Inst. of Physics and Technology, Russia

S1A-07 Simulation of nonlinear polarisation rotation laser with consideration of continious wave emission
D.V. Protasenya, A.I. Baranov, D.V. Myasnikov; NTO "IRE-Polus", Russia

S1A-08 High power ultrashort fiber laser system at 1.55 μm
A.I. Baranov, D.V. Myasnikov, D.V. Protasenya, A.S. Demkin, V.P. Gapontsev; NTO "IRE-Polus", Russia

S1A-09 High power QCW Raman fiber laser at 1246 nm
A.V. Pigarev1,2, A.A. Surin1,2, D.V. Myasnikov1; 1 - NTO IRE-Polus, 2 - Moscow Inst. of Physics and Technology, Russia

S1A-10 Pulsed erbium fiber laser with second harmonic generation in PPLT crystal
A.S. Demkin, A.I. Baranov, V.T. Ahtyamov, D.V. Myasnikov; NTO "IRE-Polus", Moscow Inst. of Physics and Technology, Russia

S1A-12 Thermal optimization of high power fiber laser systems
C. Jauregui1, H.-J. Otto1, C. Stihler1, J. Limpert1,2, A. Tünnermann1,2,3; 1 - Inst. of Applied Physics, Abbe Center of Photonics, Friedrich-Schiller-Univ., 2 - Helmholtz-Inst., 3 - Fraunhofer Inst. for Applied Optics and Precision Engineering, Germany

S1A-13 QCW thulium fiber laser for medical application
V. Sypin1,2, A. Volkov1,2, D. Myasnikov1,2, F. Shcherbina3, A. Mashkin3; 1 - NTO IRE-Polus, Russia, 2 - Moscow Inst. of Physics and Technology, Russia, 3 - IPG Laser GmbH, Germany

S1A-17 Theoretical modeling of Er/Yb-doped fiber laser
A.M. Volkov, V.E. Sypin, A.I. Baranov, D.V. Myasnikov; NTO "IRE-Polus", Moscow Inst. of Physics and Technology, Russia

S1A-18 Compact broadly tunable high energy nanosecond Ti:Sapphire laser for photoacoustic applications
D.A. Oulianov, I.I. Kuratev, R.S. Biryukov, V.A. Konovalov, O.G. Melovatsky, Z.V. Hamatov; LASER-COMPACT, Laser-export Co. Ltd., Russia

S1A-19 Looking for efficient compressor for high pulse energy femtosecond fiber laser

S. Frankinas, A. Michailovas, N. Rusteika; Ekspla Ltd, Center for Physical Sciences and Technology, Lithuania

S1A-20 Influence of a backward optical signal on mode instability in Yb3+-doped fiber amplifier
D.A. Alekseev1,2, V.A. Tyrtyshnyy1, M.S. Kuznetsov3,4, O.L. Antipov3,4; 1 - NTO "IRE-Polus", 2 - Moscow Inst. of Physics and Technology, 3 - Inst. of Applied Physics RAS, 4 - Nizhniy Novgorod State Univ., Russia

S1A-21 Mode instability observation in fiber amplifier of single-frequency radiation at 1560 nm wavelength
P.V. Puju, M.V. Zelenova, V.A. Tyrtyshnyy; NTO "IRE-Polus", Russia

S1A-24 Periodically poled MgO doped LiNbO3 and LiTaO3 for coherent light frequency conversion
V.Ya. Shur1,2, A.R. Akhmatkhanov1,2, I.S. Baturin1,2, M.A. Chuvakova1, A.A. Esin1; 1 - Ural Federal Univ., 2 - Labfer Ltd., Russia

S1A-26 Holmium doped fiber amplifier in the spectral region 2-2.15 μm
V.A. Kamynin1,2, S.A. Filatova1, I.V. Zhluktova1,3, V.B. Tsvetkov1,4; 1 - General Physics Inst. RAS, 2 - Perm Scientific Center, Ural Branch RAS, 3 - Moscow Technological Univ., 4 - National Research Nuclear Univ. MEPhi, Russia

S1A-29 Double-clad Yb-free Er-doped fibers for high average and peak power lasers
L.V. Kotov1, M.M. Bubnov1, L.D. Lipatov2, M.V. Yashkov2, A.N. Guryanov2, M.E. Likhachev1; 1 - Fiber Optics Research Center RAS, 2 - Inst. of High Purity Substances RAS, Russia

S1A-30 Bismuth-doped fiber lasers and amplifiers: review and prospects
M.A. Melkumov, S.V. Alyshev, S.V. Firstov, E.M. Dianov; Fiber Optics Research Center RAS, Russia

S1A-31 Mode locked fiber laser based on self-phase modulation and spectral filtering
I.N. Bychkov1,2, A.I. Baranov1,2, I.S. Ulianov1,2, D.V. Myasnikov1,2, I.E. Samartsev3; 1 - Moscow Inst. of Physics and Technology (State Univ.), Russia, 2 - NTO "IRE-Polus", Russia, 3 - IPG Photonics, United States

S1A-32 Wide aperture bimorph mirrors for high-power laser beam control
A. Kudryashov1,2, V. Samarkin2, A. Alexandrov2, P. Romanov2, G. Borsoni1, J. Sheldakova2; 1 - AKAoptics SAS, France, 2 - Moscow State Univ. of Mechanical Engineering, Russia

S1A-33 High power CW visible laser radiation at 623 nm generated by single pass SHG in PPcLT crystal pumped by Raman fiber laser
Y.S. Stirmanov1,2 A.A. Surin1,2, T.E. Borisenko1; 1 - NTO IRE-Polus, 2 - Moscow Inst. of Physics and Technology (State Univ.), Russia

S1A-34 State of polarization in anisotronic tapered fiber with extremely large core diameter
V.E. Ustimchik1,2,3, M.Yu. Vyatkin1, S.M. Popov1, Yu.K. Chamorovskii1, V.N. Filippov4, S.A. Nikitov1,2; 1 - Inst. of Radio-engineering and Electronics of RAS, Russia, 2 - Moscow Inst. of Physics and Technology, Russia, 3 - Russian Quantum Center, Russia, 4 - Tampere Univ. of Technology, Finland

S1A-35 Revolver hollow core fibers: optical properties and outlook
A.F. Kosolapov; Fiber Optics Research Center, Russia

S1A-39 Precise power measurement of laser radiation propagating along optical fiber
O.A. Ryabushkin, I.A. Larionov, S.V. Dolgolenok; NTO "IRE-Polus", Moscow Inst. of Physics and Technology, Russia

S1A-41 Measurement of longitudinal temperature distribution inside active optical fiber in lasing conditions
O.A. Ryabushkin, V.E. Sypin, K.Yu. Prusakov; NTO "IRE-Polus", Moscow Inst. of Physics and Technology, Russia

S1A-43 Creating an antireflection coating on the surface of silver and a monadic thallium halide crystalline materials

A.S. Korsakov, A.E. Lvov, D.S. Vrublevsky, L.V. Zhukova; Ural Federal State Univ., Russia

S1A-44 Nanodefective crystals and crystal-derived optical fibers for the spectral range of 0.4-45.0 μm
L.V. Zhukova, A.S. Korsakov, D.D. Salimgareev, V.S. Korsakov, V.V. Zhukov; Ural Federal Univ., Russia

S1A-47 Generation of single-mode blue radiation by two steps sum frequency mixing in LBO crystal
E.S. Golubyatnikov1,2, O.A. Byalkovskiy1, V.A. Tyrtyshnyy1; 1 - NTO "IRE-Polus", 2 - Moscow Inst. of Physics and Technology, Russia

Session: S1: 8th International Symposium on High-Power Fiber Lasers and Their Applications. Fiber Laser Technologies and Equipment

S1B-04 Formation of qualitative welding joints by hybrid laser arc welding of hull structures using high power fiber lasers
N.A. Nosyrev; Laser Center of Shipbuilding, JSC "Shipbuilding and Shiprepair Technology Center", Russia

S1B-05 Characteristics of yttrium oxide ablation by high-power fiber ytterbium laser
V.V. Platonov, E.A. Kochurin, V.V. Lisenkov, V.V. Osipov, E.V. Tikhonov, N.M. Zubarev; Inst. of Electrophysics, Ural Branch RAS, Russia

S1B-11 Applications of fiber lasers for personalization of high security ID documents
V. Elokhin, V. Gotlib, I. Korzhavin; Scientific Instruments JSC, Russia

S1B-14 Ways of optimization the process of three-dimensional laser cladding using a layer by layer strategy of powder alloying
D.P. Bykovskiy1, A.O. Andreev1, V.D. Mironov1, V.N. Petrovskiy1, I.S. Popkova2, A.N. Solonin2, V.V. Cheverikin2; 1 - NRNU MEPhI, 2 - NUST MISiS, Russia

S1B-16 The influence of the addition nanocarbide refractory metals in a serial of powder materials based on nickel to improve the wear resistance by laser cladding
M.A. Murzakov1, D.U. Tatarkin1, V.P. Biryukov2; 1 - NTO "IRE-Polyus", 2 - IMASH RAN, Russia

Session: S2: 4th International Symposium "Lasers in Medicine and Biophotonics". Section A. Advanced laser systems for medical applications

S2A-01 Pulsed transverse discharge CO2 laser for medical applications
S. Nikiforov1, Ya. Simanovsky1, A. Pento1, K. Moshkunov2, N. Gorbatova3, S. Zolotov3, S. Alimpiev1,4; 1 - Prokhorov General Physics Inst. RAS, 2 - "Energomashtechnica" LLC, 3 - Inst. of Emergency Children's Surgery and Traumatology, 4 - Advanced Energy Technologies, Russia

S2A-07 Minimally-invasive percutaneous nephrolithotomy in the management of staghorn stones
O.V. Teodorovich1,2, S.A. Naryshkin1,2, G.G. Borisenko2, D.G. Kochiev3; 1 - Central Clinical Hospital No1 JSC RZhD "Russian Railways", 2 - Russian Medical Academy of

Postgraduate Education, 3 - Prokhorov General Physics Inst. RAS, Russia

S2A-13 Terahertz reflectometry for the corneal tissue hydration sensing
A.A. Angeluts1, A.V. Balakin1, M.D. Mishchenko1, I.A. Ozheredov1, T.N. Saphonova2, A.P. Shkurinov1; 1 - Lomonosov Moscow State Univ., 2 - FGBNU NIIGB, Russia

S2A-p03 Improved two-channel laser Doppler flowmeter
D.G. Lapitan, D.A. Rogatkin; Vladimirsky Moscow Regional Research and Clinical Inst. "MONIKI", Russia

S2A-p04 Sapphire shaped crystals allow combining tissue cryodestruction, laser coagulation and diagnosis
I.A. Shikunova1, V.N. Kurlov1, K.I. Zaytsev2,3,4, I.V. Reshetov3,4; 1 - Inst. of Solid State Physics RAS, 2 - Bauman Moscow State Technical Univ., 3 - Inst. of Improvement of Professional Skill of the Federal Medico-Biological Agency of Russia, 4 - Sechenov First Moscow State Medical Univ., Russia

S2A-p05 Human retina model for laser safety during corneal surgery with a femtosecond laser
H. Sun, Zh. Fan; Academy of OPTO-Electronics CAS, China

Session: S2: 4th International Symposium "Lasers in Medicine and Biophotonics". Section B. Clinical optical imaging and spectroscopy

S2B-03 Autofluorescence spectroscopy techniques for skin cancer diagnostics
E. Borisova1, Al. Zhelyazkova1, Ts. Genova1, P. Troyanova2, El. Pavlova2, N. Penkov2, L. Avramov1; 1 - Inst. of Electronics BAS, 2 - Univ. Hospital "Queen Giovanna-ISUL", Bulgaria

S2B-07 Combined optical and terahertz imaging for intraoperative delineation of nonmelanoma skin cancers
A.N. Yaroslavsky1,2, C. Joseph1, R. Patel1, B. Fan1, A. Musikansky2, V.A. Neel2, R. Giles1; 1 - Univ. of Massachusetts at Lowell, 2 - Massachusetts General Hospital, United States

S2B-08 Application of terahertz time-domain spectroscopy for blood glucose monitoring
O.P. Cherkasova1, M.M. Nazarov2, A.P. Shkurinov2,3; 1 - Inst. of Laser Physics SB RAS, 2 - Inst. on Laser and Information Technologies RAS, 3 - Lomonosov Moscow State Univ., Russia

S2B-10 The study of terahertz radiation biologic effects as premise for creating of diagnostic and treatment methods
V.I. Fedorov; Inst. of Laser Physics SB RAS, Russia

S2B-11 Bag-of-Features approaches for combined classification of laser scanning microscopy and spectroscopy data sets
S.G. Stanciu1, R. Boriga2, A.C. Dascalescu3, R. Hristu1, G.A. Stanciu1; 1 - Univ. Politehnica of Bucharest, 2 - Univ. of Bucharest, 3 - "Titu Maiorescu" Univ., Romania

S2B-14 Triple-modality imaging of optoacoustic pressure, ultrasonic scattering, and optical diffuse reflectance with improved resolution and speed
P.V. Subochev, I.V. Turchin; Inst. of Applied Physics, Russia

S2B-p01 Application of a method autofluorescence diagnosis in endoscopy for investigation mucosal structure in gastrointestinal tract
D.A. Abramov, I.V. Chavkin; ITMO Univ., Russia

S2B-p03 The plasma protein fractions research by Raman spectroscopy method
A.A. Lykina1, D.N. Artemyev1, Yu.A. Khristoforova1, I.L. Davydkin2, T.P. Kuzmina2, V.P. Zakharov1; 1 - Samara State Aerospace Univ., 2 - Samara State Medical Univ., Russia

S2B-p04 NIR autofluorescence skin tumor diagnostics

Y.A. Khristoforova1, I.A. Bratchenko1, D.N. Artemyev1, O.O. Myakinin1, A.A. Moryatov2, S.V. Kozlov2, V.P. Zakharov1; 1 - Samara State Aerospace Univ., 2 - Samara State Medical Univ., Russia

S2B-p05 Study of cerebral bloodflow autoregulation in rats assessed by LSCI
S. Sindeev, O. Sindeeva, A. Abdurashitov, A. Horovodov, A. Shnitenkova, A. Gekaluk, M. Ulanova, A. Sharif, O. Semyachkina-Glushkovskaya; Saratov National Research State Univ., Russia

S2B-p06 Critical changes in the brain leads to the intracranial hemorrhages in newborn rats
E. Zinchenko1, E. Borisova2, I. Fedosov1, A. Namykin1, A. Abdurashitov1, A. Serov1, M. Abakumov3, M. Ulanova1, I. Agranovich1, O. Semyachkina-Glushkovskaya1,4; 1 - Saratov National Research State Univ., Russia, 2 - Inst. of Electronics BAS, Bulgaria, 3 - Russian National Research Medical Univ., Russia, 4 - Huazhong Univ. of Science and Technology, China

Session: S2: 4th International Symposium "Lasers in Medicine and Biophotonics". Section C. Laser interaction with cells and tissues

S2C-06 In vivo imaging for detection and discrimination of actinic keratosis and squamous cell carcinoma from healthy human skin using two-photon tomography
M.E. Darvin1, M. Klemp1, M. Weinigel2, M.C. Meinke1, K. König2, J. Lademann1; 1 - Charité - Univ. Medizin Berlin, 2 - JenLab GmbH, Germany

S2C-13 Monte Carlo simulations of photon diffusion in time and frequency domains
V.L. Kuzmin1, A.Yu. Valkov1,2, A.D. Oskirko1,2, L.A. Zubkov3; 1 - Peter the Great St. Petersburg Polytechnic Univ., Russia, 2 - St. Petersburg State Univ., Russia, 3 - Drexel Univ., United States

S2C-17 Noninvasive measurement of cell nucleus by backscattered light
K.G. Domnin, E.T. Aksenov; Peter the Great St. Petersburg Polytechnic Univ., Russia

S2C-p01 New form of the transport equation for the case of 2D orthogonal scattering approximation in biooptics
I.A. Guseva1, A.P. Tarasov1,2, D.A. Rogatkin1; 1 - Vladimirsky Moscow Regional Research and Clinical Inst. "MONIKI", 2 - Moscow Inst. of Physics and Technology (State Univ.), Russia

S2C-p02 Inaccuracy of the classical Monte-Carlo simulation in the general case of 1D turbid biological media
A.P. Tarasov1,2, I.A. Guseva2, D.A. Rogatkin2; 1 - Inst. of Physics and Technology (State Univ.), 2 - Vladimirsky Moscow Regional Research and Clinical Inst. "MONIKI", Russia

S2C-p03 Monitoring of laser-induced thermal gradients in plant cells by means of digital micro-interferometry
A.V. Belashov1,2, N.V. Petrov2, I.V. Semenova1, O.S. Vasyutinskii1; 1 - Ioffe Inst., 2 - ITMO Univ., Russia

S2C-p05 Combined laser and spectral holographic microscopy for investigation of phase objects
A.S. Machikhin, O.V. Polschikova, A.G. Ramazanova; Scientific and Technological Center of Unique Instrumentation RAS, Russia

Session: S2: 4th International Symposium "Lasers in Medicine and Biophotonics". Section D. Photonics and nanobiotechnology

S2D-04 Nanorobots for biomedical applications
M.P. Nikitin; 1 - Moscow Inst. of Physics and Technology (State Univ.), 2 - Prokhorov General Physics Inst. RAS, 3 - Shemyakin-Ovchinnikov Inst. of Bioorganic Chemistry RAS, Russia

S2D-06 Laser-induce co-deposition of copper with cobalt as signal amplification method for biochemical microbiosensors
A.V. Smikhovskaia, E.M. Khairullina, I.I. Tumkin, S.S. Ermakov, D.V. Navolotskaya; St.Petersburg State Univ., Russia

S2D-07 Application of surface-enhanced infrared spectroscopy for steroids analysis
O.P. Cherkasova1,2, A.G. Milekhin3,2, I.A. Milekhin2, S.A. Kuznetsov2, E.E. Rodyakina3,2, A.V. Latyshev3,2; 1 - Inst. of Laser Physics SB RAS, 2 - Novosibirsk State Univ., 3 - Rzhanov Inst. of Semiconductor Physics, Russia

S2D-08 Embedding molecules inside plasmonic nanostructures: a new approach for highly uniform and reproducible surface-enhanced Raman scattering
B.N. Khlebtsov1, N.G. Khlebtsov1,2; 1 - Inst. of Biochemistry and Physiology of Plants and Microorganisms RAS, 2 - Saratov National Research State Univ., Russia

S2D-09 Magnetic platform for UV surface-enhanced resonance Raman and fluorescence
H. Bhatta1, A. Aliev2, I.R. Gabitov3, V.P. Drachev1,3; 1 - Univ. of North Texas, Denton, United States, 2 - Univ. of Texas at Dallas, United States, 3 - Skolkovo Inst. of Science and Technology, Russia

S2D-12 Living cells response to laser light and low-temperature plasma
V. Zablotskii1, O. Lunov1, N. Terebova2, A. Kulikov2, S. Kubinova1,3, E. Sykova3, A. Dejneka1; 1 - Inst. of Physics of the CAS, Czech Republic, 2 - ITMO Univ., Russia, 3 - Inst. of Experimental Medicine of the CAS, Czech Republic

S2D-13 Digital image capture and analysis for simultaneous static and dynamic light scattering for biological systems
G.S. Iannacchione1, S. Algarni2; 1 - Worcester Polytechnic Inst. United States, 2 - King Saud Univ., Saudi Arabia

S2D-16 Trends in biosensor development: multifunctional platrorms and enchanced labels
I.Yu. Goryacheva1,2, Yu.S. Skibina3, S.A. Pidenko1, N.A. Burmistrova1, A.A. Shuvalov3, A.A. Chibrova3; 1 - Saratov National Research State Univ., 2 - St. Petersburg State Univ., 3 - SPC Nanostructured Glass Technology Ltd, Russia

S2D-17 Luminescent quantum dots as labels for multiparametric immunoassay
N.V. Beloglazova1,2, A.V. Gordienko1, A. Foubert2, O.A. Goryacheva1, S. De Saeger2; 1 - Saratov National Research State Univ., Russia, 2 - Ghent Univ., Belgium

S2D-19 Lectin-based nanoagents for specific cell labelling and optical visualization
V.O. Shipunova1, M.P. Nikitin1,2,3, P.I. Nikitin3, S.M. Deyev1; 1 – Shemyakin-Ovchinnikov Inst. of Bioorganic Chemistry RAS, 2 – Moscow Inst. of Physics and Technology (State Univ.), 3 – Prokhorov General Physics Inst. RAS, Russia

S2D-p02 Biosensors based on magnetic nanolabels: optimization with spectral interferometry and highly-sensitive electronic registration
A.V. Orlov1, V.A. Bragina1, S.L. Znoyko1, K.G. Shevchenko2; 1 - Prokhorov General Physics Inst. RAS, 2 - Moscow Inst. of Physics and Technology (State Univ.), Russia

S2D-p03 Real-time sensitive detection of low molecular weight compounds by optical immunosensors
A.V. Orlov1, A.G. Burenin2, N.V. Guteneva2, B.G. Gorshkov1; 1 - Prokhorov General Physics Inst. RAS, 2 - Moscow Inst. of Physics and Technology (State Univ.), Russia

S2D-p04 Luminescence method to study the growth of $CuInS_2$ quantum dots in real time
A.A. Skaptsov, A.S. Novikova, A.H.M. Mohammed, V.V. Galushka, I.Yu. Goryacheva, V.I. Kochubey; Saratov National Research State Univ., Russia

S2D-p05 Spectral method of real-time monitoring of gold nanorods growth
A.A. Skaptsov, O.A. Savenko, V.I. Kochubey; Saratov National Research State Univ.,

Russia

S2D-p06 Silanized liposomes loaded with luminescent quantum dots as label for mycotoxin detection
O.A. Goryacheva1, N.V. Beloglazova2, S. De Saeger2, I.Y. Goryacheva1; 1 - Saratov National Research State Univ., 2 - St. Petersburg State Univ., Russia

S2D-p07 Non-enzymatic glucose and hydrogen peroxide sensors based on metal structures produced by laser-induced deposition from solution
E.M. Khairullina, A.V. Smikhovskaia, S.V. Safonov, M.S. Panov, L.S. Logunov, S.S. Ermakov, V.A. Kochemirovsky; St. Petersburg State Univ., Russia

S2D-p08 Near infrared luminescent-magnetic nanoparticles for bimodal imaging in vivo
I.V. Zelepukin1,2,3, M.P. Nikitin1,2,4, A.V. Nechaev5, A.V. Zvyagin3,6, P.I. Nikitin4, S.M. Deyev1; 1 - Shemyakin-Ovchinnikov Inst. of Bioorganic Chemistry RAS, Russia, 2 - Moscow Inst. of Physics and Technology (State Univ.), Russia, 3 - Lobachevsky Nizhny Novgorod State Univ., Russia, 4 - Prokhorov General Physics Inst. RAS, Russia, 5 - Moscow State Univ. of Fine Chemical Technologies, Russia, 6 - Macquarie Univ., Australia

S2D-p09 Stimuli-responsive nano- and microstructures based on gold nanoparticles
K.G. Shevchenko1, V.R. Cherkasov1,2, I.L. Sokolov1, M.P. Nikitin1,2; 1 - Moscow Inst. of Physics and Technology (State Univ.), 2 - Prokhorov General Physics Inst. RAS, Russia

S2D-p10 Optical method for studying self-assembly of various nanoparticles in liquids
V.R. Cherkasov1,2, K.G. Shevchenko1, P.I. Nikitin2,3; 1 - Moscow Inst. of Physics and Technology (State Univ.), 2 - Prokhorov General Physics Inst. RAS, 3 - National Research Nuclear Univ., Russia

S2D-p12 The plasmonic photothermal therapy of transplanted tumors in rats using gold nanorods
A.B. Bucharskaya1, G.N. Maslyakova1, N.I. Dikht1, N.A. Navolokin1, G.S. Terentyuk1,2, A.N. Bashkatov2,5, E.A. Genina2,5, B.N. Khlebtsov2,4, N.G. Khlebtsov2,4, V.V. Tuchin2,3,5; 1 - Razumovsky Saratov State Medical Univ., 2 - Saratov National Research State Univ., 3 - Inst. of Precision Mechanics and Control RAS, 4 - Inst. of Biochemistry and Physiology of Plants and Microorganisms RAS, 5 - Tomsk National Research State Univ., Russia

S2D-p13 Spectroscopic assessment of biological tissue temperature using upconversion particles
E.K. Volkova1,2, I.Yu. Yanina1,2, A.P. Popov1, A.A. Skaptsov2, Ju.G. Konyukhova2, V.I. Kochubey2, V.V. Tuchin2,3, I.V. Meglinski1; 1 - Univ. of Oulu, Finland; 2 - Saratov National Research State Univ., Russia, 3 - Precise Mechanics and Control Inst. RAS, Russia

S2D-p14 The modeling of local distribution of the temperature photo-induced by ensemble of nanoparticles
Yu.A. Avetisyan1, A.N. Yakunin1, A.A. Bykov2, V.V. Tuchin1,2,3; 1 - Inst. of Precise Mechanics and Control RAS, 2 - Chernyshevsky Saratov National Research State Univ., 3 - Tomsk State National Research Univ., Russia

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S2E-03 Direct laser excitation of oxygen molecules: application to studies of oxygen photonics in systems of biomedical
A.A. Krasnovsky; Bach Inst. of Biochemistry RAS, Russia

S2E-05 Nanophotosensitisers for theranostics
V.B. Loschenov; Prokhorov General Physics Inst., National Research Nuclear Univ. MEPhI, Russia

S2E-07 Photothermal effects of nanoparticles in liquid media
B. Eberle, C. Hege, M. Körber, A. Azarian, S. Dengler; Fraunhofer IOSB, Germany

S2E-13 Photophysical properties of porphyrin photosensitizers
A.V. Dadeko1,2, T.D. Murav'eva1, I.M. Belousova1,2; 1 - Vavilov State Optical Inst., 2 - ITMO Univ., Russia

S2E-16 The method of laser forming of nanocarbon biocompatible coatings for artificial ligaments
A.Yu. Gerasimenko1, E.M. Eganova2, L.P. Ichkitidze1, U.E. Kurilova1, V.M. Podgaetsky1, V.V. Zar3, N.N. Zhurbina1, S.V. Selishchev1; 1 - National Research Univ. of Electronic Technology, 2 - Inst. of Nanotechnology of Microelectronics RAS, 3 - Moscow Regional Research Clinical Inst., Russia

S2E-17 Increasing the conductivity of the carbon nanotube-based layers by laser radiation
A.Yu. Gerasimenko1, L.P. Ickitidze1, V.M. Podgaetsky1, S.V. Selishchev1, E.V. Blagov2, A.A. Pavlov2, Y.P. Shaman2, D.N. Klypin3; 1 - National Research Univ. of Electronic Technology, 2 - Inst. of Nanotechnology of Microelectronics RAS, 3 - Omsk State Technical Univ., Russia

S2E-18 Self-organizing structures in aqueous dispersions of shungite carbon nanoparticles affected by laser impulses of different durations
N.N. Rozhkova1, A.O. Kucherik2, A.S. Goryunov3, S.S. Rozhkov1; 1 - Inst. of Geology Karelian Research Center RAS, 2 - Vladimir State Univ., 3 - Inst. of Biology Karelian Research Center RAS, Russia

S2E-20 Rare-earth doped nanocrystals as an active medium for terahertz stimulated emission
Yu.V. Orlovskii1,2, V.V. Hizhnyakov2, V.B. Loschenov1,3; 1 - Prokhorov General Physics Inst., Russia, 2 - Univ. of Tartu, Estonia, 3 - National Research Nuclear Univ. MEPhI, Russia

S2E-p01 Determination of the luminescence spectrum of Radachlorin photosensitizer
M.A. Petrov1,2, V.P. Belik1, M.V. Petrenko1, I.V. Semenova1, O.S. Vasyutinskii1; 1 - Ioffe Inst., 2 - Peter the Great St. Petersburg Polytechnic Univ., Russia

S2E-p02 Photodynamic and photocatalytic activity of Fe2O3 nanoparticles
E.K. Volkova1,2, Ju.G. Konyukhova1, V.I. Kochubey1, E.S. Tuchina1, V.V. Tuchin1,3; 1 - Saratov National Research State Univ., Russia, 2 - Univ. of Oulu, Finland, 3 - Precise Mechanics and Control Inst. RAS, Russia

S2E-p03 Kinetics of laser induced bleaching of Radachlorin photosensitizer
D.M. Beltukova1,2, I.V. Semenova1, A.G. Smolin1, O.S. Vasyutinskii1; 1 - Ioffe Inst., 2 - Peter the Great St. Petersburg Polytechnic Univ., Russia

Session: PD: Post-Deadline

PD-02 1550 nm high-power tapered DBR-laser diodes
A.T. Aho 1, J. Viheriälä 1, J. Mäkelä 1,2, H. Virtanen 1, S. Ranta 1, M. Dumitrescu, 1, M. Guina 1; 1 - Tampere Univ. of Technology, 2 - Univ. of Turku, Finland

PD-03 Application of the methods of dynamic light scattering and light microscopy for determining the particle size of the solid phase during the crystallization of salts
I.A. Pochitalkina1, P.A. Kekin1, D.F. Kondakov2, I.A. Petropavlovskij1, V.A. Kolesnikov1, O.B. Petrova1; 1 - Mendeleev Univ. of Chemical Technology, 2 - Kurnakov Inst. of General and Inorganic Chemistry RAS, Russia

PD-04 Displacement Talbot Lithography for the manufacture of distributed feedback and distributed Bragg reflector lasers
F.S.M. Clube, H. S. Solak, C. Dais, L. Wang; Eulitha A.G., Switzerland

PD-07 Kerr frequency comb and Brillouin lasing in BaF2 whispering gallery mode resonator