



20<sup>th</sup> Asia-Pacific Conference on Fundamental  
Problems of Opto- and Microelectronics

# **APCOM-2022**

dedicated to  
100th anniversary of Nobel Prize Laureate in Physics  
Academician Nikolay Basov

Vladivostok 2022

**Programme at a Glance**

Monday, 3rd October 2022

<b>09:00 - 09:30</b>	Conference Registration
<b>09:30 - 10:00</b>	APCOM-2022 Opening Ceremony
<b>10:00 - 10:40</b>	Plenary Section I
<b>10:40 - 11:30</b>	Section 1-I: Advanced laser technologies, nanofabrication, laser material processing
<b>11:30 - 11:50</b>	Coffee Break
<b>11:50 - 13:05</b>	Section 1-II: Advanced laser technologies, nanofabrication, laser material processing
<b>13:05 - 14:30</b>	Lunch Time
<b>14:30 - 16:10</b>	Section 1-III: Advanced laser technologies, nanofabrication, laser material processing
<b>16:10 - 16:30</b>	Coffee break
<b>16:30 - 17:35</b>	Section 1-IV: Advanced laser technologies, nanofabrication, laser material processing
<b>17:35 - 18:15</b>	Plenary Section II
<b>18:30</b>	APCOM-2022 Welcome Reception

Tuesday, 4th October 2022

<b>10:00 - 10:40</b>	Plenary Section III
<b>10:40 - 11:20</b>	Section 2-I: Advanced optoelectronic and photonic sensing techniques and measurement systems
<b>11:20 - 11:40</b>	Coffee Break
<b>11:40 - 13:20</b>	Section 2-II: Advanced optoelectronic and photonic sensing techniques and measurement systems
<b>13:20 - 14:30</b>	Lunch Time
<b>14:30 - 16:05</b>	Section 3-I: Light-emitting and other novel materials & structures for photonics, opto- and microelectronics
<b>16:05 - 16:25</b>	Coffee Break
<b>16:25 - 17:40</b>	Section 3-II: Light-emitting and other novel materials & structures for photonics, opto- and microelectronics
<b>18:00</b>	City Tour / Excursion

Wednesday, 5th October 2022

<b>10:00 - 10:40</b>	Plenary Section IV
<b>10:40 - 11:25</b>	Section 4-I: Optoelectronics and photonics for medicine and life sciences
<b>11:25 - 11:45</b>	Coffee break
<b>11:45 - 12:45</b>	Section 3-III: Light-emitting and other novel materials & structures for photonics, opto- and microelectronics
<b>12:45 - 14:15</b>	Lunch Time
<b>14:15 - 16:05</b>	Section 5-I: Optical information and optical data processing. Holography. Optical Crystals. Photorefractive effect and its applications.
<b>16:05 - 16:20</b>	Coffee Break
<b>16:20 - 18:30</b>	5-min flash talks and poster session with snacks and drinks
<b>18:45 - 22:00</b>	APCOM 2022 Closing Ceremony and Dinner

Thursday, 6th October 2022

<b>10:00 - 12:00</b>	Round table dedicated to 100 <sup>th</sup> anniversary of Nobel Prize Laureate Nikolay Basov
<b>12:00 - 13:00</b>	Lunch Time
<b>13:00 - 22:00</b>	Lab Tours and Social Program

Friday, 7th October 2022

<b>10:00 - 19:00</b>	Departure of Participants
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<b>Monday (October, 3<sup>rd</sup>)</b>	
<p><u>09:00 - 09:20</u> <b>Conference Registration</b></p> <p><u>09:20 - 09:35</u> <b>APCOM-2022 Opening Ceremony</b></p> <p><u>09:35 - 09:50</u> <b>Yuri Kulchin</b> <i>Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia</i> Nobel Prize Laureate in Physics Academician Nikolay Basov and his role in establishment of scientific school in laser Physics at the Russian Far East</p> <p><u>09:50 - 10:00</u> <b>Andrei Naumov</b> <i>P.N. Lebedev Physical Institute of RAS, Troitsk Branch, Moscow, Russia</i> Troitsk Branch of Lebedev Physical Institute RAS - Scientific Heritage of Academician N.G.Basov</p>	<p><u>12:15 - 12:40</u> <b>Sergei Kulinich</b> <b>Invited Online</b> <i>Tokai University, Tokyo, Japan</i> Decorated TiO<sub>2</sub> nanoparticles prepared by means of laser processing in liquid phase and their use as photocatalysts</p> <p><u>12:40 - 13:05</u> <b>Aleksandr Kuchmizhak</b> <b>Invited</b> <i>Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia</i> Structural coloring and anti-counterfeiting enabled by direct femtosecond laser printing</p>
<u>13:05 - 14:30</u> Lunch Time	
<p><b>Section 1-I: Advanced laser technologies, nanofabrication, laser material processing</b> <b>Chairman: Dr. Gleb Tselikov</b></p> <p><u>10:00 - 10:40</u> <b>Dmitry Gorin</b> <b>Plenary</b> <i>Skolkovo Institute of Science and Technology, Moscow, Russia</i> Combination of photonics tools and nanostructured materials for imagining, sensing and theranostics</p>	<p><b>Section 1-III: Advanced laser technologies, nanofabrication, laser material processing</b> <b>Chairman: Dr. Aleksandr Kuchmizhak</b></p> <p><u>14:30 - 14:55</u> <b>Alexey Porfirev</b> <b>Invited Online</b> <i>Image Processing Systems Institute of RAS, Samara, Russia</i> Laser Processing of Polarization-Sensitive Media with Structured Light</p> <p><u>14:55 - 15:10</u> <b>Dmitry Shuleyko</b> <b>Oral</b> <i>Moscow State University, Moscow, Russia</i> Femtosecond laser-induced surface periodic structures formation on phosphorous- and boron-doped amorphous silicon films</p> <p><u>15:10 - 15:25</u> <b>Evgeniia Khairullina</b> <b>Oral</b> <i>Institute of Chemistry, Saint Petersburg University, Saint-Petersburg, Russia</i> Laser-assisted fabrication of electrode materials on the surface of flexible polymers</p> <p><u>15:25 - 15:40</u> <b>Alexandr Marunchenko</b> <b>Oral</b> <i>ITMO University, Saint-Petersburg, Russia</i> Laser ablation of carbon nanotube thin film for fabrication of halide-perovskite flexible photodetector</p> <p><u>15:40 - 15:55</u> <b>Aleksandra Levshakova</b> <b>Oral</b> <i>Institute of Chemistry, Saint Petersburg University, Saint-Petersburg, Russia</i> Deep eutectic solvents for laser induced synthesis of functional materials</p>
<p><b>Section 1-II: Advanced laser technologies, nanofabrication, laser material processing</b> <b>Chairman: Prof. Mikhail Lapine</b></p> <p><u>10:40 - 11:05</u> <b>Mikhail Lapine</b> <b>Invited</b> <i>University of Technology Sydney, Sydney, Australia</i> Optical and acoustic sorting of nanoparticles</p> <p><u>11:05 - 11:30</u> <b>Vadim Veiko</b> <b>Invited</b> <i>ITMO University, Saint-Petersburg, Russia</i> Laser local oxidation of thin metal films: physics and applications for photonics, optoelectronics and microelectronics components fabrication</p> <p><u>11:30 - 11:50</u> Coffee Break</p> <p><u>11:50 - 12:15</u> <b>Gleb Tselikov</b> <b>Invited</b> <i>Center for Photonics and 2D Materials, Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Tunable optical properties of transition metal dichalcogenide nanoparticles</p>	

		Tuesday (October, 4 <sup>th</sup> )	
<p><u>15:55 – 16:10</u></p> <p><b>Aleksandr Shevlyagin</b> <b>Oral</b></p> <p><i>Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia</i></p> <p>Laser-perforated transparent electrodes made of Ca disilicide and digermanide thin films for UV-MIR applications</p>		<p><b>Plenary Section III</b> <b>Chairman: Prof. Roman Romashko</b></p>	
<p><u>16:10 - 16:30</u></p> <p>Coffee Break</p>		<p><u>10:00 - 10:40</u></p> <p><b>Alexander Shkurinov</b> <b>Plenary</b></p> <p><i>Lomonosov Moscow State University, Moscow, Russia</i></p> <p>New trends in conversion of femtosecond laser radiation into the terahertz frequency range</p>	
<p><b>Section 1-IV: Advanced laser technologies, nanofabrication, laser material processing</b> <b>Chairman: Dr. Aleksandr Kuchmizhak</b></p>		<p><b>Section 2-I: Advanced optoelectronic and photonic sensing techniques and measurement systems</b> <b>Chairman: Prof. Jianzhong Zhang</b></p>	
<p><u>16:30 – 16:45</u></p> <p><b>Svetlana Saparina</b> <b>Oral</b></p> <p><i>Kazan Federal University, Kazan, Russia</i></p> <p>Amorphous carbon thin films for optical sensing of humidity</p>		<p><u>10:40 – 11:05</u></p> <p><b>Anatoly Pushkarev</b> <b>Invited</b></p> <p><i>ITMO University, Saint-Petersburg, Russia</i></p> <p>Hydrogen halide gas detection with a single perovskite nanowire laser</p>	
<p><u>16:45 – 17:10</u></p> <p><b>Eugeniya Sheremet</b> <b>Invited</b></p> <p><i>Tomsk Polytechnic University, Tomsk, Russia</i></p> <p>Graphene-based wearables to address the challenges of bioelectronics</p>		<p><u>11:05 – 11:20</u></p> <p><b>Konstantin Ovchinnikov</b> <b>Oral</b></p> <p><i>Perm State University, Perm, Russia</i></p> <p>Application of optical frequency domain reflectometry for the study of polarization maintaining fibers</p>	
<p><u>17:10 – 17:35</u></p> <p><b>Raul D. Rodriguez</b> <b>Invited</b></p> <p><i>Tomsk Polytechnic University, Tomsk, Russia</i></p> <p>Photothermal heating in plasmonic nanoreactors</p>		<p><u>11:20 - 11:40</u></p> <p>Coffee Break</p>	
		<p><b>Section 2-II: Advanced optoelectronic and photonic sensing techniques and measurement systems</b> <b>Chairman: Prof. Oleg Vitrik</b></p>	
<p><b>Plenary Section II</b> <b>Chairman: Prof. Roman Romashko</b></p>		<p><u>11:40 - 12:05</u></p> <p><b>Jianzhong Zhang</b> <b>Invited Online</b></p> <p><i>Harbin Engineering University, Harbin, China</i></p> <p>Research and Development of Bismuth and Erbium co-Doped Optical Fibers with O-L Emission</p>	
<p><u>17:35 – 18:15</u></p> <p><b>Sergey Makarov</b> <b>Plenary Online</b></p> <p><i>ITMO University, Saint-Petersburg, Russia</i></p> <p>Halide perovskite microcrystals for optical applications</p>		<p><u>12:05 – 12:20</u></p> <p><b>Zhi Zhou</b> <b>Invited Online</b></p> <p><i>Hainan University, Haikou, China</i></p> <p>Novel Smart Sensors for Structural Health Monitoring on infrastructures</p>	
<p><u>18:15 - 18:30</u></p> <p><b>Kirill Zhilin</b></p> <p><i>SC "LLS", Saint-Petersburg, Russia</i></p> <p>Nordlase: Russian production of laser and laser systems</p>		<p><u>12:20 – 12:35</u></p> <p><b>Cai Shuhao</b> <b>Oral</b></p> <p><i>ITMO University, Saint-Petersburg, Russia</i></p> <p>A miniaturized fiber sensing system based on precise length adjustment in tens of nanometer</p>	
<p><u>18:30</u></p> <p>APCOM-2022 Welcome Reception</p>			

<p><u>12:35 – 12:50</u> <b>Guohui Lv</b> <i>College of Electronic Engineering, Heilongjiang University, China</i> Realization of an Ultra-High-Pressure Dynamic Calibrate System by Drop Hammer Based on Fiber Bragg Grating Strain Sensor</p> <p style="text-align: right;"><b>Oral Online</b></p> <p><u>12:50 – 13:05</u> <b>Junqing Li</b> <i>School of Physics, Harbin Institute of Technology, China</i> Single-mode Single-circular-polarization Maintaining Chiral Anti-resonant Fibers</p>	<p><u>16:05 - 16:25</u> Coffee Break</p> <p><b>Section 3-II: Light-emitting and other novel materials &amp; structures for photonics, opto- and microelectronics</b> <b>Chairman: Dr. Aleksandr Mironenko</b></p> <p><u>16:25 – 16:50</u> <b>Alexei V. Emeline</b> <i>Saint Petersburg University, Saint-Petersburg, Russia</i> Halide perovskite structure manipulation altering their electronic and optical properties</p> <p style="text-align: right;"><b>Invited</b></p> <p><u>16:50 – 17:15</u> <b>Andrei Naumov</b> <i>P.N. Lebedev Physical Institute of RAS Troitsk Branch, Moscow, Russia</i> Fluorescence nanoscopy of single molecules and quantum dots</p> <p style="text-align: right;"><b>Invited</b></p>
<p><u>13:05 - 14:30</u> Lunch Time</p>	
<p><b>Section 3-I: Light-emitting and other novel materials &amp; structures for photonics, opto- and microelectronics</b> <b>Chairman: Dr. Aleksandr Kuchmizhak</b></p> <p><u>14:30 – 14:55</u> <b>Anton Kharitonov</b> <i>Kazan Federal University, Kazan, Russia</i> Broadband plasmonics with titanium oxynitride</p> <p style="text-align: right;"><b>Invited</b></p> <p><u>14:55 – 15:20</u> <b>Aleksandr Mironenko</b> <i>Institute of Chemistry FEB RAS, Vladivostok, Russia</i> Surface enhanced fluorescence on nanostructured dielectric surfaces</p> <p style="text-align: right;"><b>Invited</b></p> <p><u>15:20 – 15:35</u> <b>Dmitry Yakubovsky</b> <i>Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Scanning near-field optical microscopy study of ultra-thin metal films on MoS<sub>2</sub> crystals</p> <p style="text-align: right;"><b>Oral</b></p> <p><u>15:35 – 15:50</u> <b>Elena Chernykh</b> <i>Kazan Federal University, Kazan, Russia</i> Sensing phase transitions in solids using thermoplasmonics</p> <p style="text-align: right;"><b>Oral</b></p> <p><u>15:50 – 16:05</u> <b>Dmitriy Grudin</b> <i>Center for Photonics and 2D Materials, Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Broadband anisotropic optical properties of hBN</p> <p style="text-align: right;"><b>Oral</b></p>	<p><u>17:15 – 17:30</u> <b>Artem Cherepakhin</b> <i>Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia</i> Microlasers and Micro-optics enabled by direct laser patterning of halide perovskites</p> <p style="text-align: right;"><b>Oral</b></p> <p><u>17:30 – 17:45</u> <b>Ruslan Azizov</b> <i>ITMO University, Saint-Petersburg, Russia</i> Resonant periodic Light-Emitting structures based on thin films of CdSe/CdZnS core/shell nanoplatelets</p> <p style="text-align: right;"><b>Oral</b></p> <p><u>17:45 – 18:00</u> <b>Almaz Gazizov</b> <i>Kazan Federal University, Kazan, Russia</i> Plasmon-enhanced anti-Stokes Raman scattering based on local density of states engineering</p> <p style="text-align: right;"><b>Oral</b></p> <p><u>18:00 – 18:15</u> <b>Georgy Ermolaev</b> <i>Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Optical Phase Engineering with Atomically Thin Transition Metal Dichalcogenides</p> <p style="text-align: right;"><b>Oral Online</b></p> <p><u>18:15 – 18:30</u> <b>Marwa Ali El-Sayed</b> <i>Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Ellipsometric analysis of low-dimensional materials over broad spectral ranges for optoelectronic and photonic applications</p> <p style="text-align: right;"><b>Oral Online</b></p> <p><u>18:40</u> City Tour / Excursion</p>

<b>Wednesday (October, 5<sup>th</sup>)</b>	
<p><b>Plenary Section IV</b> <b>Chairman: Prof. Dmitry Gorin</b></p> <p><u>10:00 – 10:40</u> <b>Alexei Kamshilin</b> <i>Almazov National Medical Research Centre, Saint-Petersburg, Russia</i> Imaging photoplethysmography as a reliable tool for monitoring tissue perfusion during open brain and abdominal surgeries</p> <p style="text-align: center;"><b>Plenary</b></p>	<p><u>12:00 – 12:15</u> <b>Alexander Syuy</b> <i>Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> New Solid Solution MAX Phases: <math>(\text{Ti}_{0.5}, \text{Nb}_{0.5})_3\text{AlC}_2</math>, <math>(\text{Ti}_{0.5}, \text{Ta}_{0.5})_3\text{AlC}_2</math> and MXenes based on them</p> <p style="text-align: center;"><b>Oral</b></p>
<p><b>Section 4-I. Optoelectronics and photonics for medicine and life sciences.</b> <b>Chairman: Prof. Alexei Kamshilin</b></p> <p><u>10:40 – 10:55</u> <b>Ervin Nippolainen</b> <i>University of Eastern Finland, Kuopio, Finland</i> Spectroscopic techniques for joint tissue evaluation</p> <p style="text-align: center;"><b>Oral</b></p>	<p><u>12:15 – 12:30</u> <b>Andrey Amosov</b> <i>Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia</i> Influence of Surface Carbon Impurities on the Nonlinear Properties of Silica Nanoparticles</p> <p style="text-align: center;"><b>Oral</b></p>
<p><u>10:55 – 11:10</u> <b>Dmitry Stavtsev</b> <i>I.M. Sechenov First Moscow State Medical University, Moscow, Russia</i> Laser Speckle Contrast Imaging System for Monitoring Cerebral Blood Flow in Neurosurgery</p> <p style="text-align: center;"><b>Oral</b></p>	<p><u>12:30 – 12:45</u> <b>Nikolay Vanyushkin</b> <i>Far Eastern Federal University, Vladivostok, Russia</i> Lasing threshold of conical modes in 1D photonic crystals</p> <p style="text-align: center;"><b>Oral</b></p>
<p><u>11:10 – 11:25</u> <b>Gennadii Piavchenko</b> <i>I.M. Sechenov First Moscow State Medical University, Moscow, Russia</i> Approaches to the diagnosis of disorders of cerebral blood flow and tissue structure of the cerebral cortex in acute life-threatening conditions</p> <p style="text-align: center;"><b>Oral</b></p>	<p><u>12:45 - 14:15</u> Lunch Time</p>
<p><u>11:25 - 11:45</u> Coffee Break</p>	<p><b>Section 5-I: Optical information and optical data processing. Holography. Optical Crystals. Photorefractive effect and its applications.</b> <b>Chairman: Prof. Alexei Kamshilin</b></p> <p><u>14:15 – 14:40</u> <b>Stanislav Shandarov</b> <i>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> Interaction of circularly polarized light beams in the cubic gyrotropic photorefractive crystals</p> <p style="text-align: center;"><b>Invited</b></p>
<p><b>Section 3-III: Light-emitting and other novel materials &amp; structures for photonics, opto- and microelectronics.</b> <b>Chairman: Dr. Anton Kharitonov</b></p> <p><u>11:45 – 12:00</u> <b>Dmitry Shtarev</b> <i>Far Eastern Federal University, Vladivostok, Russia</i> Structural properties of hexamethylenediamine-based hybrid perovskites</p> <p style="text-align: center;"><b>Oral</b></p>	<p><u>14:40 – 14:55</u> <b>Valery Naunyka</b> <i>Mozyr State Pedagogical University named after I.P. Shamyakin, Belarus</i> Effect of optical activity on degenerated four-wave mixing in cubic photorefractive crystal</p> <p style="text-align: center;"><b>Oral Online</b></p>
	<p><u>14:55 – 15:10</u> <b>Alexander Konoshonkin</b> <i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i> Umov Effect for Large Nonspherical Particles</p> <p style="text-align: center;"><b>Oral</b></p>
	<p><u>15:10 – 15:25</u> <b>Alexey Bulanov</b> <i>Il'ichev Pacific Oceanological Institute of FEB RAS, Vladivostok, Russia</i> Using of ultrasound in an automated laser induced breakdown spectroscopy complex for the study of spectral characteristics of seawater in the tasks of operational study of carbon polygons</p> <p style="text-align: center;"><b>Oral</b></p>

<u>15:25 – 15:40</u> <b>Maral Amanova</b>	<b>Oral Online</b>	<b>Thursday (October, 6<sup>th</sup>)</b>
<i>Institute of Telecommunications and informatics of Turkmenistan, Ashgabat, Turkmenistan</i> Determination of non-zero components of the flexoelectric tensor of physical values in crystals using covariant methods		<u>10:00 – 12:00</u> Round table dedicated to 100 <sup>th</sup> anniversary of Nobel Prize Laureate Nikolay Basov
<u>15:40 – 16:05</u> <b>Nikolay Petrov</b>	<b>Invited Online</b>	<u>12:00 - 13:00</u> Lunch Time
<i>ITMO University, Saint-Petersburg, Russia</i> Phase retrieval imaging with terahertz monochromatic radiation and multiplane data acquisition		<u>13:00 - 22:00</u> Lab Tours and Social Program
<u>16:05 - 16:20</u> <b>Kirill Zhilin</b> <i>SC "LLS", Saint-Petersburg, Russia</i> Unique laser technologies in the current realities		<b>Friday (October, 7<sup>th</sup>)</b>
<u>16:20 - 16:35</u> Coffee Break		<u>10:00 – 19:00</u> Departure of Participants
<u>16:35 - 18:45</u> 5-min flash talks and poster session with snacks and drinks		
<u>18:45 - 22:00</u> APCOM 2022 closing ceremony and Dinner		

## List of flash talks and poster session participants on 5<sup>th</sup> October

- P1. **Aleksey Ankushev** Time resolved LIBS spectroscopy of human hair (Far Eastern Federal University, Vladivostok, Russia)
- P2. **Artem Basakin** Melt-pool Temperature Control in Laser Additive Process (IACP FEB RAS, Vladivostok, Russia)
- P3. **Oleg Bashkov** Wavefront Laser Beam Model Formation Analysis (Komsomolsk-on-Amur State Technical University, Komsomolsk-on-Amur, Russia)
- P4. **Oleg Bashkov** Registration of acoustic emission by fiber-optic sensors of acoustic emission during the destruction of fiberglass
- P5. **Anzhelika Belaventseva** The study of thermoregulatory vasodilation of blood vessels by imaging photoplethysmography (IACP FEB RAS, Vladivostok, Russia)
- P6. **Alexander Bezpaly** Optical waveguide structures induced in a surface-doped lithium niobate crystal for optoelectronic devices (Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia)
- P7. **Yulia Borodaenko** Fabrication of anti-reflection coatings on GaSe crystal surfaces by laser-induced periodic surface structuring (IACP FEB RAS, Vladivostok, Russia)
- P8. **Anton Bryansky** Effect of the stressed state of a polymer composite material on acoustic emission signals recorded by fiber-optic sensors (Komsomolsk-on-Amur State Technical University, Komsomolsk-on-Amur, Russia)
- P9. **Anton Bryansky** Sensitivity of fiber-optic sensors when registering acoustic emission in an aluminum alloy plate
- P10. **Viktor Dolgirev** Research of light diffraction on electrically controlled multilayer inhomogeneous PPM-LC structures with smooth optical inhomogeneity (Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia)
- P11. **Viktor Dolgirev** Holographic formation of chirped multilayer inhomogeneous PPM-LC diffraction structures
- P12. **Ilya Efimov** Determination of SARS-CoV-2 concentration using an optical biosensor based on a photonic crystal with a defective layer (Far Eastern Federal University, Vladivostok, Russia)
- P13. **Timofey Efimov** Laser micromechanical biosensor for biofilm detection (IACP FEB RAS, Vladivostok, Russia)
- P14. **Ivan Egorshin** Section of electrons bremsstrahlung scattered by an ion in a homogeneous electric field (Pacific State University, Khabarovsk, Russia)
- P15. **Sergey Fomchenkov** Refractive Bi-Conic Axicon for Generation of Azimuthally Polarized Radiation (Samara National Research University, Samara, Russia)
- P16. **Adel Garifullin** Acceleration of chemical reactions in hybrid one-dimensional photonic crystals based on high-index metamaterials (Kazan Federal University, Kazan, Russia)
- P17. **Stanislav Gurbatov** Hybrid metal-semiconductor nanoparticles produced by laser ablation in liquid for optical nanosensing, anti-counterfeiting and photothermal conversion (IACP FEB RAS, Vladivostok, Russia)
- P18. **Ahmed Kamal Ibrahim Abu-Nab** Towards a Microbubble Dynamics of Laser Lithotripsy Processes in Soft Tissue (Moscow Institute of Physics and Technology, Dolgoprudny, Russia)
- P19. **Alexander Kholin** Monochromatic LEDs effect on rocket (*Eruca sativa*. Mill.) morphogenesis and productivity (IACP FEB RAS, Vladivostok, Russia)
- P20. **Yuri Konin** Wide temperature range fiber optic sensor (ITMO University, Saint Petersburg, Russia)
- P21. **Daniil Gilev** Fiber Optic Resonators for Angular Rate Sensors (Perm State University, Perm, Russia)
- P22. **Igor Kuznetsov** Increasing measuring range of an MZI electro optic electric field sensor by using a MZI modulators array (Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia)
- P23. **Vladimir Lisitsa** Comparison of the sensitivity of spectral methods for multi-element analysis of atmospheric aerosol using short and ultrashort laser pulses (IACP FEB RAS, Vladivostok, Russia)
- P24. **Pavel Ovchinnikov** On the Possibilities of Using the Evolutionary Algorithm «USPEX» to Search for New Hybrid Perovskites (Far Eastern Federal University, Vladivostok, Russia)
- P25. **Andrey Panov** Possibility of anapole state in dielectric nanohole array metasurfaces with different hole shapes (IACP FEB RAS, Vladivostok, Russia)
- P26. **Georgii Pavliuk** The Manipulation of Liquid Microdroplets by Non-Uniform Electrostatic Fields (IACP FEB RAS, Vladivostok, Russia)
- P27. **Olga Pikoul** Laser Conoscopy of Two-component Optical Systems from Gyrotropic Crystals (Far Eastern State Transport University, Khabarovsk, Russia)
- P28. **Olga Pikoul** Laser Conoscopy and Photoinduced Light Scattering in a Lithium Niobate Crystal Doped with Y(0.24 wt.%): Mg(0.63 wt.%)
- P29. **Alexandr Podlesnykh** 3X3 coupler Mach-Zender interferometric strainmeter (IACP FEB RAS, Vladivostok, Russia)
- P30. **Evgeny Rassolov** Fiber-Optic Sensors for Acoustic Emission Monitoring (IACP FEB RAS, Vladivostok, Russia)
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