

**17th International Young Scientists Conference
Optics and High Technology Material Science
Devoted to 100th Anniversary of The Optical Society**



SPO 2016

October 27-30, 2016

CONFERENCE PROGRAM

► **ORGANIZERS:**

Taras Shevchenko National University of Kyiv, Ukraine

Shizuoka University, Hamamatsu, Japan

"United Optical Community" joint student chapters

associated with SPIE, OSA



Shizuoka University
静岡大学

SPIE
Student Chapter
Taras Shevchenko National
University of Kyiv



Thursday 27/10/2016	Chairman – Andrii Pocherpailo
09:00 - 10:00	Registration
10:00 - 10:30	Opening Leonid Poperenko Conference chair
10:30 - 11:00	Invited Lecture Maksym Strikha CONDUCTIVITY OF GRAPHENE CHANNEL WITH P-N- JUNCTION ON FERROELECTRIC DOMAIN WALL: FROM BALLISTIC TO DIFFUSIVE CASE Taras Shevchenko National University of Kyiv, Faculty of Radiophysics, Kyiv (Ukraine)
11:00 - 11:30	Invited Lecture Mykola Liholit CRITICAL OPTICAL TECHNOLOGIES FOR SPACE-JET TECHNICS Special device production state enterprise "ARSENAL", Kyiv (Ukraine)
11:30 - 12:00	Invited Lecture Elina Gromenko Micro- computed X-ray tomography (MCT) Bruker microCT - New Opportunities for the Research of the Internal Structure of Materials and Alive Objects "MELYTEC-UKRAINE", Kyiv (Ukraine)
12:00 - 12:30	Coffee Break
12:30 - 12:50	Sviatoslav Vovdenko LASER MODIFICATION OF METAL SURFACE FOR EFFICIENT EXCITATION OF SURFACE PLASMONS Taras Shevchenko National University of Kyiv, Faculty of Physics, Kyiv (Ukraine)
12:50 - 13:20	Invited Lecture Emir Alper TURKOGLU MOLECULARLY IMPRINTED SURFACE PLASMON RESONANCE BIOSENSORS Ağrı İbrahim Çeçen Üniversitesi Eczacılık Fakültesi Yeni Kampüs, Ağrı (Turkey)
13:20 - 13:40	Viktor Buchenko Effect of ito film thickness and substrate surface structure on optical and electrical properties of ITO/Si heterostructures Taras Shevchenko National University of Kyiv,

	Faculty of Physics, Kyiv (Ukraine)
13:40 - 14:00	Iurii Volk MULTIHARMONIC SPECTRUM FORMING IN TRANSIT SECTION OF TWO-STREAM SUPERHETERODYNE FEL WITH NON-AXIAL BEAM INJECTION Sumy State University, Sumy (Ukraine)
14:00 - 14:45	Lunch
14:45 - 15:00	Presentation of Scientific Production Small Joint Enterprise "OPYT" (Poster hall)
15:00 - 15:20	Duygu TURKOGLU HOW TO LEAD SMALL SCIENCE GROUPS Ağrı İbrahim Çeçen University, Faculty of Education, Ağrı (Turkey)
15:20 - 15:50	Invited Lecture Toru Aoki CDTE HIGH-SPEED X-RAY IMAGER Shizuoka University, Research Institute of Electronics, Hamamatsu (Japan)
15:50 - 16:10	Veronica Cazac PHASE RETRIEVAL FROM OFF-AXIS DIGITAL HOLOGRAMS OF DIFFRACTIVE OPTICAL ELEMENTS Institute of Applied Physics Academy of Science of Moldova, Chisinau (Moldova)
16:10 - 16:30	Andrii Smaliuk THE PECULIARITIES STIMULATED RAMAN SCATTERING OF DYES IN VESICULAR POLYMERIC FILMS Taras Shevchenko National University of Kyiv Kyiv (Ukraine)
16:30 - 17:00	Invited Lecture Antonina Naumenko CHARACTERIZING TRANSITION METAL DICHALCOGENIDES BY RAMAN SPECTROSCOPY Taras Shevchenko National University of Kyiv Kyiv (Ukraine)
17:00 - 18:00	Poster Session. Section A (Poster hall) / Coffee Break

Friday 28/10/2016	Chairman – Anastasiia Mykytiuk
10:00 - 10:20	<p style="text-align: center;"> Maksym Kokhan VISUALIZATION OF UNDERSURFACE SUBMICRON-SIZED INHOMOGENEITIES VIA LASER-INDUCED INCANDESCENCE OF SURFACE LAYERS Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i> </p>
10:20 - 11:00	<p style="text-align: center;"> Invited Lecture Aurélien Houard FEMTOSECOND LASER FILAMENTATION IN AIR AND APPLICATIONS LOA, ENSTA ParisTech, CNRS, Ecole Polytechnique, Université Paris-Saclay, <i>Paris (France)</i> </p>
11:00 - 11:20	<p style="text-align: center;"> Andrii Shcherbakov ELLIPSOMETRIC DIAGNOSTICS OF GRAPHENE LAYER DEPOSITED ON COPPER SURFACE Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i> </p>
11:20 - 11:40	<p style="text-align: center;"> Ihor Fesianov RESEARCH OF BIREFRINGENCE DEGREE INFLUENCE ON CLC-LASER GENERATION SPECTRUMS Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i> </p>
11:40 - 12:10	<p style="text-align: center;"> Coffee Break </p>
12:10 - 12:40	<p style="text-align: center;"> Invited Lecture Andrii Maksymov LASER ON TWO-LEVEL TUNNELING SYSTEMS Tulane University, <i>New Orleans (USA)</i> </p>

12:40 - 13:00	<p style="text-align: center;">Maksim Iavich ATTACKS ON POST-QUANTUM CRYPTOSYSTEMS Bank Of Georgia University, Faculty of Computer Science, <i>Tbilisi (Georgia)</i></p>
13:00 - 13:20	<p style="text-align: center;">Nishizawa Junichi DIODE STRUCTURE FORMATION BY LASER IRRADIATION OF METAL INTERFACE FROM CdTe SIDE Shizuoka University, Graduate School of Science and Technology, <i>Hamamatsu (Japan)</i></p>
13:20 - 14:00	<p style="text-align: center;">Anatolii Kravets STRONG PLASMON ENHANCEMENT OF MAGNETO- OPTICAL KERR ROTATION IN CO-ALO NANOGRANULAR FILMS COATED WITH GOLD NANOPARTICLES Institute of Magnetism NAS of Ukraine, <i>Kyiv (Ukraine)</i></p>
14:00 - 15:00	Lunch
15:00 - 15:30	<p style="text-align: center;">Invited Lecture Oleksandr Kutsay DIAMOND-LIKE CARBON FILMS VERSUS FRESNEL REFLECTION V. Bakul Institute for Superhard Materials, NASU, Kyiv (Ukraine)</p>
15:30 - 15:50	<p style="text-align: center;">Artem Levchuk Analysis dynamics of optical speckles in the study pure liquids: formalism of the transparent matrix Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i></p>

<p>15:50 - 16:20</p>	<p>Invited Lecture Alexandr Stronski FUNCTIONAL MATERIALS BASED ON CHALCOGENIDE GLASSES, POLYMERS OBTAINED VIA MODIFICATION AND NANOCOMPOSITE TECHNIQUES AND THEIR APPLICATIONS IN PHOTONICS V. Lashkaryov Institute of Semiconductor Physics NAS of Ukraine, Kyiv, Ukraine, <i>Kyiv, (Ukraine)</i></p>
<p>16:20 - 16:40</p>	<p>Dmytro Gnatyuk LOW TEMPERATURE PHOTOLUMINESCENCE SPECTRA OF CdTe CRYSTALS IRRADIATED WITH NANOSECOND PULSES OF A KrF LASER Shizuoka University, Graduate School of Science and Technology, <i>Hamamatsu (Japan)</i></p>
<p>16:40 - 17:10</p>	<p>Invited Lecture Ivan Kravchenko NANOTECHNOLOGY APPROACH IN OPTICS Oak Ridge National Laboratory, <i>Oak Ridge, Tennessee, (USA)</i></p>
<p>17:10 - 17:30</p>	<p>Mykola Denysov EFFICIENCY INCREASING OF NON-IMAGING FIBER OPTIC SYSTEMS FOR MINIMALLY INVASIVE CLINICAL MEDICINE National Technical University of Ukraine "Kyiv Polytechnic Institute" <i>Kyiv (Ukraine)</i></p>
<p>17:30 - 18:00</p>	<p>Poster Session. Section B (Poster hall) / Coffee Break</p>
<p>evening (~18:00)</p>	<p>Banquet</p>

<p>Saturday 29/10/2016</p>	<p>Chairman – Artem Sribnyi</p>
<p>10:00 - 10:30</p>	<p>Invited Lecture Sergiy Prokhorenko CHANGES OF THE SUB-SURFACE MATERIAL THERMODYNAMIC CHARACTERISTICS RESEARCHING BY DEVIATIONS TOPOLOGICALLY- CONTROLLED HEAT CARRIER FLUX EVALUATING Center for Microelectronics and Nanotechnology, <i>Rzeszow, (Poland)</i></p>
<p>10:30 - 10:50</p>	<p>Volodymyr Borovytsky STABLE UNIFORM LIGHT SOURCE BASED ON AN INTEGRETING MULTI-SPHERE National Technical University of Ukraine “Kyiv Polytechnic Institute” <i>Kyiv (Ukraine)</i></p>
<p>10:50 - 11:20</p>	<p>Invited Lecture Olena Shynkarenko SURFACE MODIFICATION FOR BIOSENSORS APPLICATIONS V.E. Lashkaryov Institute of Semiconductor Physics NAS of Ukraine, <i>Kyiv, (Ukraine)</i></p>
<p>11:20 - 11:40</p>	<p>Tabata Kento CsI:TI scintillator imaging detector with separation by Si grid wall Shizuoka University, Graduate School of Science and Technology, <i>Hamamatsu (Japan)</i></p>
<p>11:40 - 12:10</p>	<p>Coffee Break</p>

12:10 - 12:30	<p>Nikita Red'kin THE USE OF FLUORESCENT DYES FOR CONTACTLESS TEMPERATURE MEASUREMENTS Minor academy of science <i>Kyiv (Ukraine)</i></p>
12:10 - 12:30	<p>Ya. Rybak TRANSPARENT OXIDE CERAMICS - PREPARATION, STRUCTURE, OPTICAL PROPERTIES AND APPLICATION Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i></p>
12:30 - 12:50	<p>Viktor Borysiuk COMPUTATIONAL STUDIES OF THE XO_4^{2-} MOLECULAR OXYANIONS ADSORPTION CHARACTERISTICS ON THE SURFACE OF PRISTINE AND N(B)-DOPED SWCNTS AND GRAPHENE Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i></p>
12:50 - 13:10	<p>Tamara Rozouvan OPTICAL PROPERTIES AND ELECTRONICAL STRUCTURE SURFACE NANOSCALE LAYERS WITH DIFFERENT TYPE OF ATOMIC ORDERING Taras Shevchenko National University of Kyiv, <i>Kyiv (Ukraine)</i></p>
13:10 - 15:50	<p>Poster Session. Section C/D (Poster hall) / Coffee Break</p>
15:50	<p>Conference closing</p>
evening (~18:00)	<p>Social event</p>
Sunday 30/10/2016	<p>Social day (10-19)</p>