GENERAL INFORMATION

NANOMEETING-2019 is an International Conference traditionally held each two years in Minsk, Belarus. The Conference has arisen from the Belarusian-French initiative and purposes to bring together scientists and engineers from around the world, who work in the fast-developing areas of nanoscience, nanotechnology, nanostructure based electronics and optoelectronics. The meeting addresses the latest results achieved in fabrication, study and application of nanosized structures. It will be in May 21 – 24, 2019 at the Belarusian State University of Informatics and Radioelectronics in Minsk.

Registration

The registration fee is 150 EURO. It is paid in cash in EURO or equivalently in Belarusian rubles during the registration. The fee includes a copy of the Conference Proceedings, admission to all sessions, coffee breaks, and the city sightseeing bus tour.

Attendees are checked-in at the Conference Registration Desk in the lobby of the second floor of the Building № 2 (P. Browka Str. 4) of the Belarusian State University of Informatics and Radioelectronics. It is easily reached from the subway station "Akademiya Nauk" or by bus number 100 (see the city map at the back cover of the Program). The registration starts on May 21 (Tuesday) at 8:30.

Meeting Activities

The technical program includes invited talks, oral presentations and poster session. A Workshop for young scientists "Nanotechnology Transfer to Market: the Art of Kung Fu" is organized during the Conference.

All presentations will be in English in the Conference Hall (Building № 2, P. Browka Str. 4) of the Belarusian State University of Informatics and Radioelectronics. Oral presentations should be no longer than 30 min for invited speakers and 20 min for others including 3-5 min for questions and short discussion. Audio-video equipment is available for speakers.

The poster session will take place in the lobby nearby the Conference Hall on Wednesday, May 22. Posters may be prepared in any form and will be displayed on poster boards of 1 m × 1.5 m. All posters should be put up on the boards in the morning May 22. That day authors are requested to be present at their posters starting from 17:00. Informal comments and discussion are encouraged during the session.

On May 21 (Tuesday), the Conference participants are invited to the city sightseeing tour just after finishing of the evening session. Conference Banquet is planned to be on May 22 (Wednesday).

For further information contact:
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ORGANIZERS

Ministry of Education of Belarus
Belarusian State University of Informatics and Radioelectronics

Nanyang Technological University

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Belarusian Republican Foundation for Fundamental Research

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D. B. Migas (Belarusian State University of Informatics and Radioelectronics)

GENERAL SCHEDULE

Tuesday May 21, 2019

8:30 – 13:00	REGISTRATION
9:15 – 11:00	PLENARY SESSION
11:00 – 11:20	*Coffee Break*
11:20 – 13:20	PHYSICS OF NANOSTRUCTURES
13:20 – 14:30	*Free Time for Lunch*
14:30 – 16:30	PHYSICS OF NANOSTRUCTURES
16:30 – 16:50	*Coffee Break*
16:50 – 18:10	PHYSICS OF NANOSTRUCTURES
18:20 – 20:00	*City Sightseeing Bus Tour*

Wednesday May 22, 2019

9:00 – 10:40	NANOTECHNOLOGY
10:40 – 11:00	*Coffee Break*
11:00 – 12:20	NANOTECHNOLOGY
12:20 – 14:00	*Free Time for Lunch*
14:00 – 15:10	NANOTECHNOLOGY
15:10 – 15:30	*Coffee Break*
15:30 – 16:50	NANOTECHNOLOGY
17:00 – 18:30	POSTER SESSION
19:00	*Conference Banquet*

Thursday May 23, 2019

9:00 – 10:50	NANOTECHNOLOGY
10:50 – 11:10	*Coffee Break*
11:10 – 12:30	NANOTECHNOLOGY
12:30 – 14:00	*Free Time for Lunch*
14:00 – 15:20	NANOSTRUCTURE BASED DEVICES
15:20 – 15:40	*Coffee Break*
15:40 – 17:00	NANOSTRUCTURE BASED DEVICES

Friday May 24, 2019

9:00 – 11:00	WORKSHOP FOR YOUNG SCIENTISTS "NANOTECHNOLOGY TRANSFER TO MARKET: THE ART OF KUNG FU".
11:00	CLOSING OF THE CONFERENCE

Tuesday May 21, 2019

PLENARY SESSION

Chairmen D. B. Migas, C. H. Kam

9:15 **Welcome to Nanomeeting-2019**
V. A. Bogush (Chairman of the National Organizing Committee, Rector of Belarusian State University of Informatics and Radioelectronics)

C. H. Kam (Co-Chairman of the International Organizing Committee, Provost of Nanyang Technological University, Singapore)

9:30 I-1 invited SYNTHESIS, ENGINEERING AND APPLICATIONS OF 2D MATERIALS
B. K. Tay
Nanyang Technological University, Singapore, Singapore

10:00 I-2 invited SEMICONDUCTOR NANOSTRUCTURE DESIGN FOR THERMOELECTRIC PROPERTY CONTROL
Y. Nakamura
Osaka University, Osaka, Japan

10:30 I-3 invited LIGHT EMISSION FROM CARBON NANOSTRUCTURES
A. L. Rogach
City University of Hong Kong, Hong Kong

Coffee Break

PHYSICS OF NANOSTRUCTURES

Chairman B. K. Tay

11:20 I-4 invited FERROMAGNETIC NANOPARTICLES AS BUILDING BLOCKS OF HIGH DIMENSIONAL MAGNETS
J. P. Liu
University of Texas at Arlington, Arlington, USA

11:50 I-5 invited TRAPPING CHARGE CARRIERS IN TWO-DIMENSIONAL DIRAC SEMIMETALS
M. Portnoi
University of Exeter, Exeter, United Kingdom

12:20 O-1 INFRARED DIAGNOSTICS OF FREE CHARGE CARRIERS IN SILICON NANOWIRES
A. I. Efimova[1], E. A. Lipkova[1], K. A. Gonchar[1], A. A. Eliseev[1], V. Yu. Timoshenko[1,2,3]
[1]M. V. Lomonosov Moscow State University, Moscow, Russia
[2]Lebedev Physical Institute of the RAS, Moscow, Russia
[3]National Research Nuclear University MEPhI, PhysBio Institute, Moscow, Russia

12:40	O-2	ELECTROSTATIC FORCE MICROSCOPY: A PROMISING DIAGNOSTIC TOOL TO MEASURE INTERPHASE PROPERTIES J. Castellon, D. El Khoury, R. Arinero *Université de Montpellier, Institut d'Electronique et Systèmes (IES), Montpellier, France*
13:00	O-3	MEASURING THE SIZE OF NANOPARTICLES USING DYNAMIC LIGHT SCATTERING. THEORY AND APPLICATION V. N. Kuryakov *Photocor Ltd., Russia*

Free Time for Lunch

Tuesday May 21, 2019

PHYSICS OF NANOSTRUCTURES

Chairman A. L. Rogach

14:30	I-6 invited	THz COMPONENTS BASED ON GRAPHENE AND CARBON P. Kuzhir *Belarusian State University, Minsk, Belarus*
15:00	I-7 invited	HIGHLY EMISSIVE AND SPECIALLY ENGINEERED QUANTUM DOTS FOR EFFICIENT LUMINESCENT SOLAR CONCENTRATORS Hongbo Li *Beijing Institute of Technology, China*
15:30	O-4	TEMPERATURE DEPENDENCE OF PHOTOLUMINESCENCE FOR SPIN-COATED SEMICONDUCTOR QUANTUM DOTS AND QUANTUM DOT-DYE NANOASSEMBLIES ON QUARTZ SUBSTRATE E. Zenkevich[1], A. Stupak[2], C. von Borczyskowski[3] *[1]Belarusian National Technical University, Minsk, Belarus* *[2]B. I. Stepanov Institute of Physics, NASB, Minsk, Belarus* *[3]Institute of Physics, University of Technology Chemnitz, Chemnitz, Germany*
15:50	O-5	LUMINESCENCE OF GOLD NANOROD-QUANTUM DOTS COMPLEXES L. L. Trotsiuk[1], A. O. Muravitskaya[1], O. S. Kulakovich[1], S. V. Gaponenko[1], H. V. Demir[2] *[1]B. I. Stepanov Institute of Physics NASB, Minsk, Belarus* *[2]UNAM–Institute of Materials Science and Nanotechnology, Bilkent University, Ankara, Turkey*
16:10	O-6	REFRACTIVE INDEX INFLUENCE ON THE QUANTUM DOTS FLUORESCENCE NEAR THE GOLD NANORODS A. O. Muravitskaya[1], L. L. Trotsiuk[1], O. S. Kulakovich[1], L. I. Gurinovich[1], S. V. Gaponenko[1], A. V. Antanovich[2] *[1]B. I. Stepanov Institute of Physics NASB, Minsk, Belarus* *[2]Research Institute for Physico-Chemical Problems of Belarusian State University, Minsk, Belarus*

Coffee Break

16:50 O-7 Ca SILICIDE FILMS ON Si(100) AND Si(111) SUBSTRATES: STRUCTURE, OPTICAL AND ELECTRICAL PROPERTIES
N. G. Galkin[1], K. N. Galkin[1], A. V. Tupkalo[1], S. A. Dotsenko[1], Z. Fogarassi[2], B. Pecz[2]
[1]Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
[2]Institute of Technical Physics and Materials Research Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungary

17:10 O-8 SPIN-DEPENDENT ELECTRONIC TRANSPORT IN IrMn-Co/Pd MULTILAYERED SYSTEMS
W.-B. Wu[1], J. Kasiuk[1], J. Fedotova[1], T. N. Anh Nguyen[2], T. H. Thuy Trinh[2], K. Tung Do[2], D. Lam Vu[2], J. Przewoźnik[3], C. Kapusta[3], O. Kupreeva[4]
[1]Institute for Nuclear Problems, Belarusian State University, Minsk, Belarus
[2]Institute of Materials Science, Vietnam Academy of Science and Technology, Hanoi, Vietnam
[3]AGH University of Science and Technology, Krakow, Poland
[4]Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus

17:30 O-9 ANISOTROPIC TEMPERATURE DEPENDENT INTERACTION OF FERROMAGNETIC NANOPARTICLES EMBEDDED INSIDE CNT
S. Prischepa[1,2], A. Danilyuk[1]
[1]Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus
[2]National Research Nuclear University MEPhI, Moscow, Russia

17:50 O-10 PREPARATION OF GERMANIUM-TIN ALLOY NANOPARTICLES BY LASER-ASSISTED TECHNIQUES IN LIQUID
N. Tarasenka[1], N. Tarasenko[1], V. Pankov[2]
[1]B. I. Stepanov Institute of Physics NASB, Minsk, Belarus
[2]Belarusian State University, Minsk, Belarus

City Sightseeing Bus Tour

Wednesday May 22, 2019

NANOTECHNOLOGY

Chairman P. Kuzhir

9:00	I-8 invited	DIRECT SYNTHESIS OF COLORFUL AND CONDUCTIVE SWNT THIN FILMS FOR FLEXIBLE ELECTRONICS APPLICATIONS N. Wei, E. I. Kauppinen *Aalto University, Aalto, Finland*
9:30	I-9 invited	MECHANICAL-ELECTRIC POWER CONVERSION BASED ON CHEMICAL POTENTIAL DIFFERENCE Q. Zhang *Nanyang Technological University, Singapore, Singapore*
10:00	O-11	FORMATION OF WATER SOLUBLE Au-NANOBIOCOMPOSITE WITH DIELECTRIC MATRIX G. Aleksandrova, B. Sukhov, B. Trofimov *A. E. Favorsky Irkutsk Institute of Chemistry SB RAS, Irkutsk, Russia*
10:20	O-12	PHOTOCURRENT SWITCHING ON ELECTROPHORETIC CdSe QD ELECTRODES WITH DIFFERENT LIGANDS Y. Aniskevich[1,2], M. Malashchonak[2], A. Antanovich[1], A. Prudnikau[3], G. Ragoisha[1], E. Streltsov[2] *[1]Research Institute for Physical Chemical Problems, Belarusian State University, Minsk, Belarus* *[2]Belarusian State University, Minsk, Belarus* *[3]TU Dresden, Dresden, Germany*
		Coffee Break
11:00	O-13	EFFECT OF SUBSTITUENTS ON TICT RATE IN THIOFLAVIN T BASED FLUORESCENT MOLECULAR ROTORS V. I. Stsiapura[1], S. D. Gogoleva[1], A. A. Maskevich[1], O. V. Buganov[2], S. A. Tikhomirov[2], A. A. Lugovski[3], K. Baruah[4], B. K. Sarma[4] *[1]Yanka Kupala State University, Grodno, Belarus* *[2]B. I. Stepanov Institute of Physics NASB, Minsk, Belarus* *[3]Belarusian State University, Minsk, Belarus* *[4]Shiv Nadar University, Dadri, Uttar Pradesh, India*
11:20	O-14	SYNTHESIS OF GRAPHITIC CARBON NITRIDE IN POROUS SILICA GLASS E. B. Chubenko[1], A. V. Baglov[1], E. S. Lisimova[1], V. E. Borisenko[1,2] *[1]Belarusion State University of Informatics and Radioelectronics, Minsk, Belarus* *[2]National Research Nuclear University MEPhI, Moscow, Russia*
11:40	O-15	NUCLEATION OF GOLD NANOPARTICLES IN A SOLUTION VIA LASER HELL: SIMULATION AND EXPERIMENTS S. P. Fisenko[1], J. A. Bobb[2], C. J. Rodrigues[2], M. S. El-Shall[2], K. M. Tibbetts[2] *[1]A. V. Luikov Heat and Mass Transfer Institute, NASB, Minsk, Belarus* *[2]Virginia Commonwealth University, Richmond, Virginia, USA*

12:00 O-16 TECHNOLOGIES OF 2D NANOSTRUCTURES
S. Tamulevičius
Institute of Materials Science, Kaunas University of Technology, Kaunas, Lithuania

Free Time for Lunch

Wednesday May 22, 2019

NANOTECHNOLOGY

Chairman J.-L. Lazzari

14:00 I-10 invited TRANSITION METAL DICHALCOGENIDES FOR ELECTRO-OPTICAL APPLICATIONS
S. Ozcelik
Gazi University, Ankara, Turkey

14:30 O-17 OPTICAL PROPERTIES OF LATERALLY ORIENTED SELF-ASSEMBLED MONOLAYERS OF SILVER NANOPLATELETS ON CATIONIC POLYMERS
P. Malakhovsky, M. Artemyev
Research Institute for Physical Chemical Problems of the Belarusian State University, Minsk, Belarus

14:50 O-18 NITRO-DERIVATIVES OF SILAPRISMANES AS HIGH-ENERGY COMPOUNDS: THEORETICAL STUDY
M. A. Salem[1,3], M. A. Gimaldinova[1], A. I. Kochaev[2], K. P. Katin[1], R. V. Ryzhuk[1], N. I. Kargin[1], M. M. Maslov[1]
[1]*National Research Nuclear University MEPhI, Moscow, Russia*
[2]*Ulyanovsk State Technical University, Ulyanovsk, Russia*
[3]*Zagazig University, Zagazig, Egypt*

Coffee Break

15:30 O-19 WATER-SOLUBLE CADMIUM SELENIDE QUANTUM DOTS WITH CONTROLLED SURFACE CHARGE
A. Radchanka, M. Artemyev
Research Institute for Physical Chemical Problems of the Belarusian State University, Minsk, Belarus

15:50 O-20 LASER ASSISTED FABRICATION OF NANOPARTICLES IN LIQUIDS AND THEIR APPLICATION FOR IMPROVING ANALYTICAL PERFORMANCE OF LIBS
N. Tarasenko[1], V. Kiris[1], N. Tarasenka[1], A. Nevar[1], M. Kuzmanovic[2], D. P. Rankovic[2], J. Savovic[2], M. Trtica[2]
[1]*B. I. Stepanov Institute of Physics NASB, Minsk, Belarus*
[2]*University of Belgrade, Belgrade, Serbia*

16:10 O-21 INFLUENCE OF ION BEAM-ASSISTED DEPOSITION ON THE WETTING PROPERTIES OF Al-1.0 AT.% Cr ALLOY FILMS
I. I. Tashlykova-Bushkevich[1], J. S. Yakovenko[2], I. A. Bushkevich[3]
[1]*Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus*
[2]*Minsk State Vocational-Technical College of Light Industry and Consumer Services, Minsk, Belarus*
[3]*Belarusian State University, Minsk, Belarus*

16:30 O-22 OPTICAL FEATURES OF THE SILICA SOL-GEL DERIVED GLASSES DOPED WITH COPPER SELENIDE NANOPARTICLES
V. S. Gurin[1], A. A. Alexeenko[2]
[1]*Research Institute for Physical Chemical Problems, Belarusian State University, Minsk, Belarus*
[2]*Gomel State Technical University, Gomel, Belarus*

POSTER SESSION

17:00-18:30 – the lobby nearby the Conference Hall

Conference Banquet

Thursday May 23, 2019

NANOTECHNOLOGY

Chairman Y. Nakamura

9:00 I-11 invited
IN-SITU FABRICATED PEROVSKITE QUANTUM DOTS FOR PHOTONIC AND OPTOELECTRONIC APPLICATIONS
H. Zhong
Beijing Institute of Technology, China

9:30 I-12 invited
VISUALIZATION OF LASER INDUCED TEMPERATURE FIELDS IN GRAPHENE BY RAMAN SPECTROSCOPY: NEW APPROACH FOR THERMAL CONDUCTIVITY EVALUATION OF 2D MATERIALS
I. V. Komissarov
Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus

10:00 I-13 invited
ORDERED TRANSPARENT CONDUCTING OXIDE NANOWIRES
M. Zervos
University of Cyprus, Nicosia, Cyprus

10:30 O-23
CHARACTERISTICS OF CZTSSe THIN FILMS PREPARED BY SELENIZATION OF SPUTTERED Cu, Sn AND ZnS LAYERS
N. Akçay[1,2], S. Ozcelik[2], E. Zaretskaya[3], R. Juskenas[4]
[1]*Baskent University, Ankara, Turkey*
[2]*Gazi University, Ankara, Turkey*
[3]*State Scientific and Production Association «Scientific-Practical Materials Research Centre of NASB»,Minsk, Belarus*
[4]*State Research Institute Center for Physical Sciences and Technology, Vilnius, Lithuania*

Coffee Break

11:10 O-24
SILICENE NANOSTRUCTURES GROWN ON GRAPHENE COVERED SiC (0001) SUBSTRATE
I. Berbezier[1], A. Michon[2], P. Castrucci[3], M. Scarselli[3], M. Salvato[3], M. Scagliotti[3], M. De Crescenzi[3]
[1]*CNRS, Aix-Marseille Université, IM2NP, Marseille, France*
[2]*Centre de Recherche pour l'Hétéro-Epitaxie et ses Applications (CRHEA), CNRS, Valbonne, France*
[3]*Università di Roma "Tor Vergata", Roma, Italy*

11:30 O-25
MODIFICATION OF ELECTRIC TRANSPORT PROPERTIES OF CVD GRAPHENE BY ELECTROCHEMICAL DEPOSITION OF COBALT NANOPARTICLES
V. Bayev[1], J. Fedotova[1], U. Humennik[1], S. Vorobyova[2], A. Konakow[2], A. Fedotov[3], I. Svito[3], M. Rybin[4], E. Obraztsova[4]
[1]*Institute for Nuclear Problems, Belarusian State University, Minsk, Belarus*
[2]*Research Institute for Physical Chemical Problems, Belarusian State University, Minsk, Belarus*
[3]*Belarusian State University, Minsk, Belarus*
[4]*A. M. Prokhorov General Physics Institute, Moscow, Russia*

11:50	O-26	MICROPLASTICS ANALYSIS USING CONFOTEC MR200 RAMAN MICROSCOPE S. Shashkov, V. Kopacheuski, A. Kudryakov, A. Babin *SOL Instruments Ltd., Minsk, Belarus*
12:10	O-27	STUDY OF DILUTED MELDONIUM SOLUTIONS BY SURFACE ENHANCED RAMAN SCATTERING SPECTROSCOPY N. Khinevich[1], S. Zavatski[1], H. Bandarenka[1], V. Belyatsky[2], E. Galyuk[2], O. Ryneiskaya[2] *[1]Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus* *[2]Belarusian State Medical University, Minsk, Belarus*

Free Time for Lunch

Thursday May 23, 2019

NANOSTRUCTURE BASED DEVICES

Chairman I. V. Komissarov

14:00	I-14 invited	ATOMISTIC SIMULATIONS OF PHASE CHANGE MATERIALS FOR ELECTRONIC MEMORIES M. Bernasconi *University of Milano-Bicocca, Milan, Italy*
14:30	I-15 invited	SPIN-ORBIT TORQUE SWITCHING IN HEAVY METAL/FERROMAGNET JUNCTIONS FOR MAGNETIC MEMORY DEVICES Y. K. Kim *Korea University, Seoul, Korea*
15:00	O-28	SILICON p^+-p^--n DIODES WITH EMBEDDED β-$FeSi_2$ AND $CrSi_2$ NANOCRYSTALS: MORPHOLOGY, CRYSTAL STRUCTURE AND PHOTOELECTRIC PROPERTIES N. G. Galkin[1], D. L. Goroshko[1], E. A. Chusovitin[1], A. V. Shevlyagin[1], K. N. Galkin[1], A. K. Gutakovskii[2] *[1]Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia* *[2]Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia*

Coffee Break

15:40	O-29	ANALYTIC MODELING THE *J-V* CHARACTERISTICS OF QUANTUM DOT BASED PHOTOVOLTAIC CELLS A. Yu. Saunina[1], V. R. Nikitenko[1], A. A. Chistyakov[1], M. A. Zvaizgne[1], A. R. Tameev[2], A. E. Aleksandrov[2] *[1]National Research Nuclear University MEPhI, Moscow, Russia* *[2]A. N. Frumkin Institute of Physical Chemistry and Electrochemistry, RAS, Moscow, Russia*

16:00 O-30 2D CARBON MATERIAL/SILICON HETEROJUNCTIONS FOR FAST RESPONSE SELF-POWERED PHOTODETECTOR
M. Scagliotti[1], M. Salvato[1], M. De Crescenzi[1], P. Castrucci[1], N. G. Kovalchuk[2], I. V. Komissarov[2], S. L. Prischepa[2], D. Catone[3], L. Di Mario[3], M. Boscardin[4], M. Crivellari[4]
[1]*Dipartimento di Fisica, Università di Roma "Tor Vergata", Roma, Italy*
[2]*Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus*
[3]*Istituto di Struttura della Materia (ISM), CNR, Division of Ultrafast Processes in Materials (FLASHit), Rome, Italy*
[4]*Micro-nano Characterization and Fabrication Facility, Fondazione Bruno Kessler (FBK), Povo-Trento, Italy*

16:20 O-31 EFFECT OF GRAPHENE COATING ON SERS PERFORMANCE OF PLASMONIC NANOSTRUCTURES BASED ON SILVERED POROUS SILICON
A. Panarin[1], P. Mojzes[2], B. Ranishenka[3], S. Terekhov[1]
[1]*B. I. Stepanov Institute of Physics NASB, Minsk, Belarus*
[2]*Charles University, Prague, Czech Republic*
[3]*Institute of Physical Organic Chemistry NASB, Minsk, Belarus*

16:40 O-32 3-D SILICON PHOTONIC STRUCTURES BASED ON AVALANCHE LED WITH INTERCONNECTIONS THROUGH OPTICAL INTERPOSER
S. K. Lazarouk[1,2], A. A. Leshok[1], T. A. Kozlova[1], A. V. Dolbik[1], Le Dinh Vi[1], V. K. Ilkov[3], V. A. Labunov[1,2]
[1]*Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus*
[2]*National Research Nuclear University MEPhI, Moscow, Russia*
[3]*Russian Technological University, Moscow, Russia*

Friday May 24, 2019

Workshop for young scientists
"Nanotechnology Transfer to Market: the Art of Kung Fu".
Moderators H. Bandarenka, E. Chubenko
9:00 – 11:00

11:00 **Closing of the Conference**

POSTERS

P-1 THE DEVIATIONS OF HIGH FREQUENCY CONDUCTIVITY OF DISORDERED GRANULAR SYSTEMS FROM UNIVERSALITY
M. A. Ormont, I. P. Zvyagin
M. V. Lomonosov Moscow State University, Moscow, Russia

P-2 CONCENTRATION AND MOBILITY OF ELECTRONS IN *n*-GaAs/AlGaAs:Si NANOSTRUCTURES UNDER UNIAXIAL COMPRESSION IN THE DARK AND AFTER ILLUMINATION
E. V. Bogdanov, N. Ya. Minina
M. V. Lomonosov Moscow State University, Moscow, Russia

P-3 PROPERTIES OF TiO_2/TiO_x ACTIVE LAYERS AND FABRICATION RESISTIVE SWITCHING DEVICE
A. Bibilashvili[1,2], Z. Kushitashvili[2]
[1]Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia
[2]LEPL Institute of Micro and Nanoelectronics, Tbilisi, Georgia

P-4 SPIN-ORBIT INTERACTIONS IN SEMICONDUCTOR QUANTUM RING IN THE PRESENCE OF MAGNETIC FIELD
A. V. Baran, V. V. Kudryashov
Institute of Physics, NASB, Minsk, Belarus

P-5 PREPARATION AND MORPHOLOGY OF CdZnS THIN FILMS
S. I. Sadovnikov
Institute of Solid State Chemistry, Ural Division RAS, Ekaterinburg, Russia

P-6 THERMAL EXPANSION OF NANOSTRUCTURED SOLID SOLUTIONS OF LEAD AND SILVER SULFIDES
S. I. Sadovnikov
Institute of Solid State Chemistry, Ural Division RAS, Ekaterinburg, Russia

P-7 TRANSFORMATION OF EVANESCENT BESSEL LIGHT BEAMS INTO PROPAGATING QUASI-NONDIFFRACTING BEAMS IN EPSILON-NEAR-ZERO HYPERBOLIC METAMATERIALS
S. Kurilkina, V. Belyi, N. Kazak
B. I. Stepanov Institute of Physics NASB, Minsk, Belarus

P-8 PHOTOCONDUCTIVITY RESONANCE TUNNELING SPECTROSCOPY OF THE ELECTRON STATES IN THE InAs/GaAs QUANTUM DOT HETEROSTRUCTURES
N. L. Ivina[1], M. L. Orlov[1], N. S. Volkova[2]
[1]The Russian Presidential Academy of National Economy and Public Administration, Nizhny Novgorod, Russia
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P-9 CALCULATION OF NEAR ZONE ELECTROMAGNETIC FIELD RADIATED FROM SUB-WAVELENGTH NANOAPERTURE TO A PLANE DIELECTRIC
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P-10 EFFECT OF Al DOPING ON THE STRUCTURAL, ELECTRICAL, GAS SENSING PROPERTIES OF ZnO NANORODS SYNTHESIZED BY HYDROTHERMAL GROWTH
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P-11 SPATIAL ORDER AND ABSORPTION OF LIGHT BY MONOLAYER OF SILICON NANO- AND SUBMICROMETER-SIZED PARTICLES
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P-12 DEPENDENCE OF A SURFACE PLASMON RESONANCE BAND ON CONCENTRATION OF COPPER NANOPARTICLES IN TRANSPARENT AND CARBON-BEARING MATRICES
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P-13 NANOSTRUCTURING OF THE CIGS FILMS SURFACE BY THE PLASMA TREATMENT WITH LOW ION ENERGY
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P-14 ONE-STEP ROUTE TO GROW ZnO HEXANGULAR TUBE STRUCTURES
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P-15 MODELLING OF ELECTRON TRANSFER IN GRAPHENE ON SiC SUBSTRATE
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P-16 DIELECTRIC PROPERTIES OF EPOXY RESIN COMPOSITES BASED ON MAGNETIC NANOPARTICLES
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P-17 DEPOSITION OF GOLD NANOSTRUCTURES INTO POROUS SiO_2/Si TEMPLATES FROM THE ELECTROLYTE BASED ON Au(I) SULFITE COMPLEX
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P-18 FORMATION OF METALLIC DROPLETS ON THE SURFACE OF INDIUM SULPHIDE FILMS DURING ARGON PLASMA TREATMENT
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P-19 FIELD EMISSION IN SILICON VACUUM NANOSTRUCTURE
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P-20 MECHANOCHEMICAL SYNTHESIS OF INTERMETALLIC COMPOUNDS IN THE GALLIUM–IRIDIUM SYSTEM

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P-21 MAGNETOOPTICAL AND MICROMAGNETIC PROPERTIES OF FERROMAGNET/HEAVY METAL THIN FILM STRUCTURES

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P-22 OPTICAL CHARACTERISTICS OF POROUS ALUMINa MODIFIED BY CHROMIUM OXIDE

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P-23 NON-POROUS NITROGEN AND RUTHENIUM CO-DOPED TITANIA FILMS FOR PHOTOCATALYSIS

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P-24 TWO-COMPONENT ANALYSIS OF PHOTOLUMINESCENCE BANDS FOR SEMICONDUCTOR QUANTUM DOTS IN SOLUTIONS

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P-25 CRYSTALLIZATION BEHAVIOR OF PURE N-ALKANE (N-NONADECANE) IN A FORM OF NANOEMULSION

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P-26 TRIBOLOGICAL PROPERTIES OF COMPOSITE LANGMUIR-BLODGETT COATINGS OF OLEIC ACID WITH MOLYBDENUM DISULFIDE NANOPARTICLES

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P-27 GOLD NANOPARTICLES FOR SURFACE-ENHANCED RAMAN SPECTROSCOPY

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P-28 FIRST-PRINCIPLES STUDY OF STRUCTURAL AND ELECTRONIC PROPERTIES OF $MoS_{1.5}Se_{0.5}$ ALLOY

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P-29 SYNTHESIS AND PROPERTIES OF RGO-Fe_3O_4 HYBRID NANOMATERIAL AND ITS POLYMER COMPOSITE
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P-30 OPTICAL TRANSMISSION AND REFLECTION OF NANOSTRUCTURED Cu(In,Ga)Se_2 THIN FILMS IRRADIATED WITH HYDROGEN IONS
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P-31 A MODEL OF ELECTRON TUNNELING TO THE SURFACE STATES IN TiO_2 WITH APPLICATION TO PHOTOCATALYSIS
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P-32 BOND ENERGY IN NANOSTRUCTURED WATER
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P-33 CHARACTERIZATION OF MESOPOROUS SILICON USING DSC THERMOPOROMETRY
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P-34 RADIATIVE RECOMBINATION IN THE Cu(In,Ga)Se_2 THIN FILMS IRRADIATED WITH HYDROGEN IONS
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P-35 PHOTOPHYSICAL PROPERTIES OF THE POLY-N-EPOXYPROPYLCARBAZOLE NANOCOMPOSITE WITH A Ni COMPLEX
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P-36 INFLUENCE OF CHITOSAN/DEXTRAN SULFATE LAYER-BY-LAYER SHELL ON COLLOIDAL PROPERTIES OF SILVER NANOPARTICLES
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P-37 STUDY OF SAFETY OF SiO_2(Ag)/Si SYSTEM BY CYTOFLUOROMETRIC METHOD OF ANALYSIS OF REACTIVE OXYGEN SPECIES AND CELL DEATH IN CULTURE
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P-38 NEUTRAL SILICON-VACANCY COLOR CENTER IN DIAMOND: CLUSTER SIMULATION OF SPATIAL AND HYPERFINE CHARACTERISTICS

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P-39 THE CHANGES IN PARTICLE DISTRIBUTION OVER THE POLYMER SURFACE UNDER THE DIELECTRIC BARRIER DISCHARGE PLASMA

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P-40 STRUCTURE OF TANTALUM AND TANTALUM OXIDE COATINGS ON STEEL AND GLASS SURFACES

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P-41 STRUCTURE AND UP-CONVERSION LUMINESCENCE OF Er^{3+}/Yb^{3+} CO-DOPED LANTHANUM ZIRCONATE CERAMICS

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P-42 NANOPARTICLE-ENHANCED LASER INDUCED BREAKDOWN SPECTROSCOPY USING COPPER-SILVER AND NICKEL-CARBON NANOCOMPOSITES ON ALUMINIUM

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P-43 ZINC OXIDE NANOSTRUCTURES DOPED WITH TRANSITION METALS: FABRICATION AND PROPERTIES

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P-44 STRUCTURE SIMULATION OF CISPLATIN COMPLEXES WITH SINGLE-WALLED CARBON NANOTUBES AND FULLERENOL

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P-45 A NEW BIOENGINEERING APPROACH FOR IMMUNOTHERAPY

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P-46 SPIN PROPERTIES OF GERMANIUM-VACANCY CENTERS IN BULK AND NEAR-SURFACE REGIONS OF DIAMOND

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P-47 SOL-GEL FABRICATION AND LUMINESCENCE PROPERTIES OF MULTILAYER Eu-DOPED $BaTiO_3/SiO_2$ XEROGEL NANOSTRUCTURES

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P-48 THE CHANGES OF SURFACE POTENTIAL AND BUILT-IN CHARGE IN ALUMINA FILMS AFTER THE ANODIZATION PROCESS

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P-49 LUMINESCENCE OF POROUS NANOSTRUCTURED STRONTIUM TITANATE FILMS DOPED WITH Eu^{3+} IONS

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P-50 NANOCRYSTALLINE FEATURES OF STRUCTURE AND LUMINESCENT PROPERTIES OF $(Y_{1-x}La_x)_3(Al_{1-y}Ga_y)_5O_{12}:Ce^{3+}$ GARNETS

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P-51 EXTREME HEATING OF ALUMINA BARRIER LAYER DURING HIGH ELECTRIC FIELD ANODIZATION OF ALUMINUM

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P-52 PHOTOCURRENT HYSTERESIS OF SOL-GEL DERIVED STRONTIUM TITANATE FILMS ON SILICON

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P-53 EVOLUTION OF CAVITATION ACTIVITY DURING ULTRASONIC NANOSTRUCTURING OF MAGNESIUM

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P-54 THERMODYNAMIC INVESTIGATION OF POLYHYDROXYLATED DERIVATIVES OF LIGHT FULLERENES
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P-55 POROUS SILICON FOR ACCUMULATION AND GENERATION OF HYDROGEN
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P-56 STABILITY OF 2D ALKALINE-EARTH METAL SILICIDES, GERMANIDES AND STANNIDES
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P-57 SHELF LIFE IMPROVEMENT OF SERS-ACTIVE SUBSTRATES BASED ON COPPER AND POROUS ALUMINUM OXIDE
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P-58 ELECTRONIC PROPERTIES OF WS_2/WSe_2 HETEROSTRUCTURE CONTAINING Te IMPURITY: THE ROLE OF SUBSTITUTING POSITION
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P-59 QUANTUM CHEMICAL CALCULATION OF REACTIONS INVOLVING C_{20}, C_{60}, GRAPHENE AND H_2O
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P-60 DEPOSITION AND CHARACTERIZATION OF ANTIMONENE
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P-61 FABRICATION OF IRON NANOTUBES IN THE PORES OF ION-TRACK MATRICES
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P-62 THE ATHERMAL MELTING OF SUPERFICIAL LAYERS OF SEMICONDUCTORS BY USING OF NANOSECOND LASER INFLUENCE
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P-63 ADHESION IMPROVEMENT BY ATMOSPHERIC PRESSURE PLASMA TREATMENT
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