

**Third Asian School-Conference on Physics and Technology
of Nanostructured Materials**

ASCO-NANOMAT 2015

PROGRAMME

Institute of Automation and Control Processes FEB RAS

Far Eastern Federal University

Vladivostok

2015

General information

Plenary talk – 45 minutes including questions

Ordinary talk – 15 minutes including questions

Coffee break – 15 minutes

Lunch – 90 minutes

Organizers

**Institute of Automation and Control
Processes FEB RAS**



Far Eastern Federal University



The School-Conference is sponsored by

**Russian Foundation for
Basic Research**



**Far Eastern Branch of
Russian Academy of Science**



Wednesday, 19 August

- 09:00 – 20:00 Participants arrival at the airport of Vladivostok, transportation and accommodation
20:00 – 21:00 Participants registration at the hotel at FEFU campus

Thursday, 20 August

- 08:30 – 09:00 Participants registration
09:00 – 09:30 Opening remarks
09:30 – 11:45 Plenary session
11:45 – 12:15 *Coffee break*
12:15 – 12:45 Carbon based nanomaterials: technology, structure and characterization
12:45 – 14:15 *Lunch*
14:15 – 16:30 Plenary session
16:30 – 16:45 *Coffee break*
16:45 – 18:15 Atomic-scale controlled surfaces/interfaces and nanostructure self-organization
19:00 – 21:00 *Welcome party (Café of FEFU)*

Friday, 21 August

- 09:00 – 09:45 Plenary session
09:45 – 10:30 Nanostructured coatings: formation technology and properties
10:30 – 10:45 *Coffee break*
10:45 – 11:45 Nanostructured coatings: formation technology and properties
11:45 – 13:15 *Lunch*
13:15 – 14:00 Plenary session
14:00 – 16:00 Nanodevices and sensors for photonics, optoelectronics and electromechanics
16:00 – 16:15 *Coffee break*
16:15 – 18:15 Poster session I
21:00 – 23:00 *Excursion “Night Vladivostok”*

Saturday, 22 August

- 09:00 – 11:15 Plenary session
11:15 – 11:30 *Coffee break*
11:30 – 12:45 First principal calculations and molecular modeling of nanostructures
12:45 – 14:15 *Lunch*
14:15 – 16:30 Plenary session
16:30 – 16:45 *Coffee break*

- 16:45 – 17:45 First principal calculations and molecular modeling of nanostructures
17:45 – 18:15 Nanosilicides and bulk silicides: synthesis and characterization

Sunday, 23 August

- 09:00 – 12:00 Excursion to Institute of Automation and Control Processes FEB RAS
12:00 – 13:30 Lunch at FEFU campus
14:00 – 16:30 Excursion “Voroshilov’s battery of Russky Island”
16:30 – 18:30 Bus trip “Sights of Russky Island”

Monday, 24 August

- 09:00 – 10:30 Plenary session
10:30 – 10:45 *Coffee break*
10:45 – 13:00 Formation and properties of ferromagnetic, thermoelectric and ferroelectric materials and nanosystems
13:00 – 14:30 *Lunch*
14:30 – 16:00 Plenary session
16:00 – 17:15 Formation and properties of ferromagnetic, thermoelectric and ferroelectric materials and nanosystems
17:15 – 17:30 *Coffee break*
17:30 – 19:30 Poster session II

Tuesday, 25 August

- 09:00 – 10:30 Plenary session
10:30 – 11:15 Optical materials, nonlinear optical mediums and laser metrology
11:15 – 11:30 *Coffee break*
11:30 – 12:30 Semiconducting nanoheterostructures: growth, structure and characterization
12:30 – 14:00 *Lunch*
14:00 – 15:30 Plenary session
15:30 – 17:15 Nanocomposites and functional hybrid materials: formation technology, structure and characterization
17:15 – 17:45 *Coffee break*
17:45 – 18:15 Award ceremony and closing remarks
19:00 – 22:00 *Symposium Dinner (Café of FEFU)*

Wednesday, 26 August

- 09:00 – 22:00 Participants departure



Programme of the Third Asian School- Conference on Physics and Technology of Nanostructured Materials ASCO-NANOMAT 2015

WEDNESDAY, 19 AUGUST

09:00 – 20:00 Participants arrival at the airport of Vladivostok, transportation and accommodation

20:00 – 21:00 Participants registration at the hotel at FEFU campus

THURSDAY, 20 AUGUST

Participants registration **08:30 – 09:00**

Opening remarks **09:00 – 09:30**

Chairman: A.A. Saranin

Plenary session **09:30 – 11:45**

PS.20.01i **A. Chuvilin***, R. Hillenbrand
** CIC nanoGUNE Consolider, San Sebastián, Spain*
Optical, ion and electron microscopies - a synergy of combined application

PS.20.02i J. Bartolomé, L. Badía-Romano, J. Rubín, C. Magén, D.E. Bürgler,
J. Rubio-Zuazo, G.R. Castro, S.N. Varnakov, I.A. Yakovlev, I.A. Tarasov,
B.A. Belyaev, S.A. Lyashenko, M.S. Platunov, **S.G. Ovchinnikov***
** L.V. Kirensky Institute of Physics, SB RAS, Krasnoyarsk, Russia*
Structure and composition of Fe-Si interfaces in (Fe/Si)₃ multilayer nanostructures

PS.20.03i **V.G. Dubrovskii**
St. Petersburg Academic University, St. Petersburg, Russia
Synthesis and properties of Ga-catalyzed GaAs nanowires on silicon

Coffee break **11:45 – 12:15**

Carbon based nanomaterials: technology, structure and characterization **12:15 – 12:45**

Chairman: E. Arushanov

IV.20.01o **A.M. Ziatdinov***, N.S. Saenko
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
The effect of adsorbed molecules on electronic structure and magnetic properties of nanographites

IV.20.02o **N.S. Saenko***, A.M. Ziatdinov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Multilayer graphene nanoclusters: structure, electronic and magnetic properties

Chairman: *S.M. Shivaprasad***Plenary session****14:15 – 16:30**

- PS.20.04i **S.A. Gavrilov**
National Research University of Electronic Technology, Zelenograd, Russian Federation
Study of the properties and formation mechanisms of nanostructured functional materials
- PS.20.05i **A.A. Gorbatsevich**
P.N.Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia
Broken symmetries in semiconductor nanoheterostructure based open quantum systems
- PS.20.06i **T.S. Shamirzaev**
A.V. Rzhanov Institute of Semiconductor Physics, SB RAS, Novosibirsk, Russia
Neutral excitons spin relaxation in indirect band gap heterostructures with type I band alignment

Coffee break**16:30 – 16:45****Atomic-scale controlled surfaces/interfaces and nanostructure self organization**Chairman: *V.G. Dubrovskii***16:45 – 18:15**

- I.20.01o N.V. Denisov, O.A. Utas, **S.G. Azatyan***, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Formation of bimetallic surface alloys from monometallic structures on the bulk-like Si(111)1×1
- I.20.02o **N. Sibirev***, V.G. Dubrovskii
Saint-Petersburg Academic University, St. Petersburg, Russia
Nucleation statistics during the diffusion regime of nanowire growth
- I.20.03o **L.V. Bondarenko***, A.V. Matetskiy, A.Y. Tupchaya, D.V. Gruznev, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Electronic and atomic structure of 2D In-Tl layer on Si(111)
- I.20.04o **N.V. Denisov***, O.A. Utas, S.G. Azatyan, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Indium–bismuth surface alloys on Si(111)
- I.20.05o **K.V. Ignatovich***, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Characterization of In/Si(111) system by optical second-harmonic generation
- I.20.06o **D.A. Tsukanov***, D.V. Gruznev, L.V. Bondarenko, A.V. Matetskiy, M.V. Ivanchenko, A.S. Shevchenko, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Electrical conductance of two-dimensional alloy layers on Si(111)

Welcome party (Café of FEFU)**19:00 – 21:00**

FRIDAY, 21 AUGUST

Chairman: *S.B. Vakhrushev*

Plenary session

09:00 – 09:45

- PS.21.01i **S.I. Kudryashov***, S.V. Makarov, S.G. Bezhanov, A.A. Rudenko, A.P. Kanavin, S.A. Uryupin, D.A. Zayarny, A.A. Ionin, A.A. Kuchmizhak, O.B. Vitrik, Yu.N. Kulchin, V.I. Emel'yanov, S.A. Alferov, S.N. Khonina, S.V. Karpeev
** Lebedev Physical Institute, Russian Academy of Science, Moscow, Russia*
Ablative nanofabrication with femtosecond lasers

Nanostructured coatings: formation technology and properties

Chairman: *S.B. Vakhrushev*

09:45 – 10:30

- VIII.21.01o **V.S. Egorkin***, I.E. Vyaliy, S.L. Sinebryukhov, S.V. Gnedenkov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Evaluation of electrochemical properties of the PEO-coatings treated with hydrophobic agent solution on aluminium alloy
- VIII.21.02o **X.H. Xia***, W.X. Wu, Y.W. Bao, Y. Gao
** Hubei Collaborative Innovation Center for Advanced Organic Chemical Materials*
A room-temperature TiO₂ films hydrogen sensor with low detection limits
- VIII.21.03o **A.S. Gnedenkov***, S.L. Sinebryukhov, D.V. Mashtalyar, S.V. Gnedenkov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Inhibitor-containing composite coatings on Mg alloys: corrosion mechanism and self-healing protection

Coffee break

10:30 – 10:45

Nanostructured coatings: formation technology and properties

Chairman: *S.A. Gavrilov*

10:45 – 11:45

- VIII.21.04o **S.S. Voznesenskiy***, A.A. Nepomnyaschiy
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Dose characteristics of multilayer chitosan-metal-dielectric nanostructures for electronic nanolithography
- VIII.21.05o **I.M. Imshinetskiy***, D.V. Mashtalyar, S.L. Sinebryukhov, S.V. Gnedenkov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Electrophoretic composite coatings on magnesium alloys
- VIII.21.06o D.V. Mashtalyar, **K.V. Nadaraia***, S.V. Gnedenkov, S.L. Sinebryukhov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Formation of composite coatings with using fluoropolymer materials
- VIII.21.07o **M.A. Pugachevskii***, V.I. Panfilov
** Institute of Materials of FEB RAS, Khabarovsk, Russia*
The stabilization of the ZrO₂ and HfO₂ high-temperature phases by laser ablation

Lunch

11:45– 13:15

Chairman: A.A. Gorbatsevich

Plenary session

13:15 – 14:00

- PS.21.02i E. Horváth, M. Spina, A. Pisoni, B. Náfrádi, **L. Forró***
** Laboratory of Physics of Complex Matter, EPFL, Lausanne, Switzerland*
Physics and application of photovoltaic perovskite nanowires

**Nanodevices and sensors for photonics,
optoelectronics and electromechanics**

Chairman: A.A. Gorbatsevich

14:00 – 16:00

- XI.21.01o V.A. Bepalov, N.A. Djuzhev, **M.A. Makhiboroda***, R.Y. Preobrazhensky
** National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Planar silicon-based Field Emission Cathode Unit for X-ray source
- XI.21.02o Yu.N. Kulchin, O.B. Vitrik, **S.O. Gurbatov***, A.A. Kuchmizhak
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Plasmon mode excitation and photoluminescence enhancement on laser generated Ag nanoring
- XI.21.03o A.A. Sherchenkov, S.A. Kozyukhin, P.I. Lazarenko, A.V. Babich, S.P. Timoshenkov, D.G. Gromov, A.O. Yakubov, **D.Y. Terekhov***
** National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Influence of Ti doping on the properties of Ge-Sb-Te thin films for phase change memory
- XI.21.04o **A.A. Kuchmizhak***, O.B. Vitrik, Yu.N. Kulchin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Laser printing of plasmonic nanoantennas
- XI.21.05o **A.G. Mirochnik***, N.V. Petrochenkova, A.S. Shishov, A.A. Sergeev, A.A. Leonov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Supramolecular lanthanide-containing luminescent structures for ammonia and amine vapours detection
- XI.21.06o V.A. Bepalov, **N.A. Djuzhev***, D.V. Novikov, V.T. Ryabov
** National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Application of the streamlined body for properties amplification of thermoresistive MEMS gas flow sensor
- XI.21.07o **D.V. Pavlov***, A.A. Kuchmizhak, O.B. Vitrik, Yu.N. Kulchin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Laser-assisted fabrication of hybrid plasmonic nanoantennas on the Cu film surface
- XI.21.08o **A.V. Shevlyagin**, D.L. Goroshko, E.A. Chusovitin, N.G. Galkin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Toward Si optoelectronic integrated circuit with silicides photonics

Coffee break

16:00 – 16:15

Poster session I

16:15 – 18:15

Excursion “Night Vladivostok”

21:00 – 23:00

SATURDAY, 22 AUGUST

Chairman: *L. Forro*

Plenary session

09:00 – 11:15

- PS.22.01i X. Meng, H. Suzuki, **H. Tatsuoka***
* *Graduate School of Science and Technology, Shizuoka University, Hamamatsu, Japan*
Structural control of Si based nano-structures by catalyst design
- PS.22.02i Yoo Sang Jeon, Ji Sung Lee, **Young Keun Kim***
* *Department of Materials Science and Engineering, Korea University, Seoul, Korea*
Magnetic and Magnetotransport properties of 1D magnetic nanochains
- PS.22.03i **Z. Remes***, J. Stuchlik, The Ha Stuchlíková, A. Purkrt, R. Fajgar, M. Kostejn, K. Zhuravlev, N. G. Galkin
* *Institute of Physics CAS, v. v. i. (FZU), Praha, Czech Republic*
Silicide and sulphide nanoparticles embedded in hydrogenated amorphous silicon

Coffee break

11:15 – 11:30

First principal calculations and molecular modeling of nanostructures

Chairman: *V.U. Nazarov*

11:30 – 12:45

- V.22.01o **P.D. Andriushchenko***, K.V. Nefedev
* *Far Eastern Federal University, Vladivostok, Russia*
The temperature dependence of the average size of maximum cluster in finite Ising spins chain
- V.22.02o **A.N. Chibisov**
Computational Center, Khabarovsk, Russia
Computer simulation of the equilibrium morphology of zirconia nanocrystals
- V.22.03o V.I.Belokon, **O.I.Dyachenko***
* *Far Eastern Federal University, Vladivostok, Russia*
Superparamagnetism in thin films
- V.22.04o **Yu.V. Luniakov**
Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
DFT evolutionary search for Mg₂Si under pressure
- V.22.05o **A.A. Peretiatko***, K.V. Nefedev
* *Far Eastern Federal University, Vladivostok, Russia*
Magnetic states and equilibrium properties of one-dimensional chains of nanoparticles

Lunch

12:45 – 14:15

Plenary session**14:15 – 16:30**

- PS.22.04i **D. Migas**
Belarusian State University of Informatics and Radioelectronics, Belarus
Role of morphology on electronic properties of III-V nanowires
- PS.22.05i **V.U. Nazarov***, G.Y. Guo
** Research Center for Applied Sciences, Academia Sinica, Taipei, Taiwan*
Electronic excitations in quasi-2D crystals: What theoretical quantities are relevant to experiment?
- PS.22.06i **G. Shao**
University of Bolton, UK
Sustainable materials for large area photonic applications by Design: theoretical modeling and experimental exploitation

Coffee break**16:30 – 16:45****First principal calculations and molecular modeling of nanostructures**Chairman: *D. Migas***16:45 – 17:45**

- V.22.06o **A.A. Petrov***, L.L. Afremov
** Far Eastern Federal University, Vladivostok, Russia*
Size-dependent Curie temperature of the nanoparticles
- V.22.07o **Y.A. Shevchenko***, K.V. Nefedev
** Far Eastern Federal University, Vladivostok, Russia*
Temperature behaviour of equilibrium heat capacity in square Spin ice discrete XY model with point Ising-like dipoles
- V.22.08o **T.V. Utas***, O.A. Utas, D.A. Olyanich, V.V. Mararov, A.V. Matetskiy, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Modeling C₆₀ island growth using molecular dynamics method
- V.22.09o **A.S. Fedorov, M.A. Visotin***
** L.V. Kirensky Institute of Physics, SB RAS, Krasnoyarsk 660036, Russia*
Expansion of endohedral fullerene formation statistical model

Nanosilicides and bulk silicides: synthesis and characterizationChairman: *G. Shao***17:45 – 18:15**

- III.22.01o **A.S. Gouralnik***, E.V. Pustovalov, A.L. Chuvilin, A.I. Cherednichenko, S.A. Dotzenko, S.V. Chusovitina, Ko-Wei Lin, V.S. Plotnikov
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
The processes of intermixing and silicide formation in the systems Me/Si
- III.22.02o **A.S. Tarasov***, D.A. Smolyakov, A.O. Gustaitsev, A.V. Lukyanenko, I.A. Bondarev, S.N. Varnakov, N.V. Volkov
** Kirensky Institute of Physics, Russian Academy of Sciences, Siberian Branch, Krasnoyarsk, Russia*
Frequency-Dependent Magnetotransport Properties of the Schottky diode based on the Fe₃Si/*p*-Si Hybrid Structure

SUNDAY, 23 AUGUST

Excursion to Institute of Automation and Control Processes FEB RAS	09:00 – 12:00
Lunch at FEFU campus	12:00 – 13:30
Excursion “Voroshilov’s battery of Russky Island”	14:00 – 16:30
Bus trip “Sights of Russky Island”	16:30 – 18:30

MONDAY, 24 AUGUST

Chairman: A. Chuvilin

Plenary session

09:00 – 10:30

- PS.24.01i **S.M. Shivaprasad**
Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India
Multi-functional manifestations of III-nitride nanostructures and films
- PS.24.02i **S.B. Vakhrushev**
Ioffe Institute, St. Petersburg Russia
Nanostructured and nanocomposite ferroelectrics

Coffee break

10:30 – 10:45

Formation and properties of ferromagnetic, thermoelectric and ferroelectric materials and nanosystems

Chairman: S.G. Ovchinnikov

10:45 – 13:00

- VI.24.01o **A.V. Filimonov***, N.V. Andreeva, E.Y. Koroleva
** Saint-Petersburg State Polytechnical University, Saint Petersburg, Russia*
Low temperature dynamics of surface polar state of potassium tantalate doped with lithium ions studied with piezoresponse force microscopy
- VI.24.02o **S.V. Anisimov***, L.L. Afremov, I.G. Iliushin
** Far Eastern Federal University, Vladivostok, Russia*
Dependence of the coercive field on the size of Fe/Fe₃O₄ nanoparticles
- VI.24.03o **T. Gushi***, K. Ito, S. Honda, Y. Yasutomi, S. Higashikozono, K. Toko, H. Oosato, Y. Sugimoto, K. Asakawa, N. Ota, T. Suemasu
** Institute for Applied Physics, University of Tsukuba, Tsukuba, Japan*
Observation and control of magnetic domain structure in Fe₄N ferromagnetic nanowire
- VI.24.04o **V.V. Balashev***, T.A. Pisarenko, V.A. Vikulov, V.V. Korobtsov
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
RHEED study of the texture in polycrystalline films of magnetite grown on oxidized silicon surface
- VI.24.05o **A.V. Davydenko***, K.S. Ermakov, A.V. Ognev, L.A. Chebotkevich
** Far Eastern Federal University, Vladivostok, Russia*
Magnetic anisotropy of epitaxial Co(111) films grown on Pd(111)/Cu/Si(111)
- VI.24.06o **I.G. Iliushin***, L.L. Afremov, M.A. Shmykova
** Far Eastern Federal University, Vladivostok, Russia*
The behavior of the hysteresis characteristics of core/shell titanomagnetites in oxidation process modeling
- VI.24.07o **Yu. P. Ivanov***, A. Chuvilin, D.G. Trabada, L.G. Vivas, O. Chubykalo-Fesenko, M. Vazques, J. Kosel
** King Abdullah University of Science and Technology, Thuwal, Saudi Arabia*
Magnetocrystalline anisotropy effect on the magnetic properties of the 3D nanowires array

VI.24.08o **Y. Qi***, P. Zhou, K. Liang, T. Zhang
** Hubei Collaborative Innovation Center for Advanced Organic Chemical Materials, Hubei University, Wuhan, People's Republic of China*
Leakage Mechanism of ferroelectric
Bi_{3.15}Nd_{0.85}Ti₃O₁₂/BiFeO₃/Bi_{3.15}Nd_{0.85}Ti₃O₁₂ trilayer thin films

VI.24.09o **A.G. Kolesnikov***, M.E. Steblyi, A.V. Ognev, A.S. Samardak,
L.A. Chebotkevich, Xiufeng Han
** Far Eastern Federal University, Vladivostok, Russia*
Effect of buffer and capping layers on magnetic properties of thin
Ru/Co/Ru films

Lunch **13:00 – 14:30**

Chairman: *T. Suemasu*

Plenary session **14:30 – 16:00**

PS.24.03i **E. Arushanov***, M. Guc, S. Levchenko, K.G. Lisunov
** Institute of Applied Physics, Chisinau, Moldova*
Transport and optical properties of Cu₂ZnSn(S,Se)₄

PS.24.04i **R.M. Bayazitov***, R.I. Batalov
** Zavoisky Physical-Technical Institute of RAS, Kazan, Russia*
Formation of strained and highly doped Ge layers for Si
optoelectronics

**Formation and properties of ferromagnetic,
thermoelectric and ferroelectric
materials and nanosystems** Chairman: *R.M. Bayazitov*
16:00 – 17:15

VI.24.10o **A.G. Kozlov***, M.E. Steblyi, A.V. Ognev, A.S. Samardak, L.A. Chebotkevich
** Far Eastern Federal University, Vladivostok, Russia*
Domain structure of magnetostatically coupled Co nanostripes

VI.24.11o **N.I. Plusnin**
Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
Creation of spin injectors for silicon spintronics: achievements and
prospects

VI.24.12o **I.A. Yakovlev***, I.A. Tarasov, B.A. Belyaev, S.N. Varnakov, S.M. Zharkov,
S.G. Ovchinnikov
** Siberian State Aerospace University, Krasnoyarsk, Russia*
High effective saturation magnetization films of Fe_{1-x}Si_x synthesized
by MBE

VI.24.13o **E.V. Sukovatitsina***, A.S. Samardak, A.V. Ognev, A.Yu. Samardak, E.B. Modin,
L.A. Chebotkevich, F. Nasirpour
** Far Eastern Federal University, Vladivostok, Russia*
Effect of electrodeposition frequency on the anisotropy reorientation
in CoNi nanowire arrays

VI.24.14o **V.A. Vikulov***, A.A. Dimitriev, V.V. Balashev, T.A. Pisarenko, V.V. Korobtsov
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Correlation of magnetotransport and transport properties of a hybrid
Fe₃O₄/SiO₂/Si structures with the different conductivity type of Si
substrate

Coffee break

17:15 – 17:30

Poster session II

17:30 – 19:30

TUESDAY, 25 AUGUST

Chairman: A. Shklyaev

Plenary session

09:00 – 10:30

- PS.25.01i **T. Suemasu***, W. Du, M. Baba, R. Takabe, K. Hara, W. Watanabe, K. Toko, N. Usami, T. Sekiguchi
** Institute of Applied Physics, University of Tsukuba, Tsukuba, Japan*
Present status towards BaSi₂ thin-film solar cells
- PS.25.02i **Y. Terai**
Department of Computer Science and Electronics, Kyushu Institute of Technology, Iizuka, JAPAN
Modulation spectroscopy of iron silicides

Optical materials, nonlinear optical mediums and laser metrology

Chairman: S. Kudryashov

10:30 – 11:15

- VII.25.01o **N. Kosyrev***, V.N. Zabluda and S.G. Ovchinnikov
** LV Kirensky Institute of Physics SB RAS*
In situ Mueller-matrix magneto-ellipsometry
- VII.25.02o **I. Krasnikov***, A. Seteikin, A. Popov
** Amur State University, Blagveshchensk, Russia*
Skin surface temperature at sunlight radiation in presence of sunscreen nanoparticles
- VII.25.03o **A.A. Sergeev***, S.S. Voznesenskiy, A.N. Galkina, Y.V. Kuznetsova, A.A. Rempel, I.V. Postnova, Y.A. Shchipunov
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Nanocomposites based on quantum dots for laser control devices

Coffee break

11:15 – 11:30

Semiconducting nanoheterostructures: growth, structure and characterization

Chairman: Y. Terai

11:30 – 12:30

- II.25.01o G. Molnár, **L. Dózsa***, R. Erdélyi
** Institute for Technical Physics and Materials Science, Budapest, Hungary*
Local electrical characteristics of iron silicide nanostructures on Si substrates
- II.25.02o **I.A. Kibirev***, A.V. Matetskiy, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Exchange gap in the topological surface states in the epitaxially grown MnSe/Bi₂Se₃ heterostructures
- II.25.03o **E.V. Pustovalov***, A.S. Goualnik, A.L. Chuvilin, S.V. Vavanova, Ko-Wei Lin, V.S. Plotnikov
** Far Eastern Federal University, Vladivostok, Russia*
Atomic structure of the multilayered iron silicide films
- II.25.04o S.T. Feng, Z.K. He, H. Ni, **T.J. Zhang***
** Hubei Collaborative Innovation Center for Advanced Organic Chemical Materials, Hubei University, Wuhan, People's Republic of China*
Controllable synthesis of TiO₂ nanotubes array on FTO

Lunch

12:30 – 14:00

Plenary session**14:00 – 15:30**

- PS.25.03i **A.A. Shklyaev**
Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia
GeSi layers prepared on Si at high temperatures
- PS.25.04i **L. Dózsa***, B. Pécz, Z. Osváth, Zs. Zolnai, N.G. Galkin, K.N. Galkin, I.M. Chernev, A.V. Shevlyagin, S.A. Dotsenko
** Institute of Technical Physics and Materials Research, Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungarian*
Structural, microscopic, and electronic transport properties of Mg₂Si-Mg₂Sn alloy heterostructures on silicon

Nanocomposites and functional hybrid materials: formation technology, structure and characterizationChairman: *Z. Remes***15:30 – 17:15**

- IX.25.01o **A.N. Galkina***, A.V. Nepomnyaschiy, I.V. Postnova, Yu.V. Kuznetsova, A.A. Rempel
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Structural features of nanocomposites based on quantum dots in glass matrix
- IX.25.02o **P. Mierczynski***, O. Shtyka, R. Ciesielski, A. Kedziora, T.P. Maniecki
** Lodz University of Technology, Lodz, Poland*
Comparative studies of copper, nickel, platinum, ruthenium and gold supported catalysts for oxidative steam reforming of methanol
- IX.25.03o **K.A. Petrovykh***, V.S. Kortov, Yu.P. Savina, A.A. Rempel
** Ural Federal University, Ekaterinburg, Russia*
Preparation and characterization of Zn₂SiO₄:Mn²⁺ thin films deposited by sol-gel deep coating method
- IX.25.04o **A.B. Podgorbunsky***, T.I. Usoltseva, S.L. Sinebrykhov, S.V. Gnedenkov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Effect of aliovalent dopants on the electrophysical properties of mechanochemically synthesized KSn₂F₅
- IX.25.05o Li Chundong, **V.V. Neshchimenko***, M.M. Mikhailov
** Harbin Institute of Technology, Harbin, China*
Optical properties and radiation stability of SiO₂, ZnO, TiO₂ nano- and microparticles
- IX.25.06o **D.P. Opra***, S.V. Gnedenkov, S.L. Sinebryukhov, A.A. Sokolov, V.V. Zheleznov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
ZrO₂-doped nanostructured anatase TiO₂ as promising anode material for Li-ion battery
- IX.25.07o V.S. Egorkin, **I.E. Vyaliy***, S.L. Sinebryukhov, S.V. Gnedenkov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
Duty cycle of the polarizing signal influence on morphology and properties of the PEO-coating on aluminium alloy

Coffee break**17:15 – 17:45****Award ceremony and closing remarks****17:45 – 18:15**

WEDNESDAY, 26 AUGUST

Participants departure

09:00 – 22:00

Poster session I

- I.21.01p **Y. Berdnikov***, V.G. Dubrovskii
** St. Petersburg Academic University, St. Petersburg, Russia*
Scaling of atomic chains size distributions during room-temperature growth
- I.21.02p **A. Dronov***, S. Dubkov, I. Gavrilin, S. Gavrilov, M. Silibin, A. Zheleznyakova, A. Sysa, H. Terryn, J. Ustarroz
** National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Temperature influence on porous anodic titania formation process under controlled hydrodynamic conditions
- I.21.03p **K.S. Ermakov***, A.V. Ognev, A.G. Kozlov, L.A. Chebotkevich, E.V. Sukovatitsina, A.V. Davydenko, A.S. Samardak
** Far Eastern Federal University, Vladivostok, Russia*
Formation of epitaxial nanowires Co on Si(111)5.55×5.55-Cu
- I.21.04p **Y. Nazarkina***, S. Gavrilov, H.Terryn, J. Ustarroz, O. Steenhaut
** National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Characterization of porous anodic alumina matrices formed in selenic acid electrolyte
- I.21.05p **G.M. Poletaev***, D.V. Novoselova, V.M. Kaygorodova
** Altai State Technical University, Barnaul, Russia*
The causes of formation of the triple junctions of grain boundaries containing excess free volume in fcc metals at crystallization
- I.21.06p **O.V. Pyatilova***, S.A.Gavrilov, Yu.I. Shilyaeva, A.A. Pavlov, A.A. Dudin, A.N.Belov, A.V. Volkova
** National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Investigation of porous silicon formed by galvanic etching with platinum film as catalyst
- I.21.07p **I. Tarasov**
Kirensky Institute of Physics, Krasnoyarsk, Russia
Self-ordered alpha-FeSi₂ nanobars on Si(100)
- I.21.08p **A.Y. Tupchaya***, L.V. Bondarenko, A.V. Matetskiy, D.V. Gruznev, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Two-dimensional AuTl structures on Si(111) surface
- V.21.01p **P.D. Andriushchenko***, K.V. Nefedev
** Far Eastern Federal University, Vladivostok, Russia*
Number of degenerated states of finite Ising spin chains
- V.21.02p **M.A. Chibisova***, A.N. Chibisov
** Computational Center, Russian Academy of Sciences, Khabarovsk 680000, Russia*
The effect of nitrogen doping on the elastic properties of silicene: a first principles calculations
- V.21.03p **A.V. Dubinets***, E.V. Pustovalov, A.N. Fedorets, E.B. Modin, V.S. Plotnikov
** Far Eastern Federal University, Vladivostok, Russia*
Simulation of work transmission electron microscope by means GPU

- V.21.04p **Y.A. Shevchenko***, K.V. Nefedev
* *Far Eastern Federal University, Vladivostok, Russia*
Magnetic states and frustrations in 2D XY point dipole model of square spin ice
- V.21.05p **Y.A. Shevchenko***, K.V. Nefedev
* *Far Eastern Federal University, Vladivostok, Russia*
Comparison of ground state search methods in the random system of ising-like point magnetic dipoles
- V.21.06p **Z. Wang***, Y. Gao, X.h. Xia, G.S. Shao
* *Faculty of Physics and Electronic Technology, Hubei University, Wuhan, PR China*
Studying H₂ molecular dissociation and H atomic diffusion process on the rutile TiO₂ (002) dense thin film with remarkable hydrogen sensing functionality
- VI.21.01p **A.A. Antonov***, A.Yu. Milinskiy, S.V. Baryshnikov
* *Blagoveshchensk State Pedagogical University, Blagoveshchensk, Russia*
Dielectric investigations of SC(NH₂)₂ in pores of nanoporous silica matrices
- VI.21.02p P.V. Kharitonskii, K.G. Gareev, **A.M. Frolov***, S.V. Lebedev, P.V. Velikorussov
* *Far Eastern Federal University, Vladivostok, Russia*
The investigation of superparamagnetic colloidal particles Fe₃O₄-SiO₂
- VI.21.03p P.V. Kharitonskii, K.G. Gareev, **A.M. Frolov***, V.S. Rudnev, I.A. Tkachenko, V.P. Morozova, I.V. Lukiyanchuk, M.V. Adigamova, A.Yu. Ustinov
* *Far Eastern Federal University, Vladivostok, Russia*
Magnetic properties of iron-cobalt coatings formed on aluminum by plasma electrolytic oxidation
- VI.21.04p Y.N. Kulchin, **N.G. Galkin***, E.P. Subbotin, K.N. Galkin, D.S. Yatsko, A.I. Nikitin
* *Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Growth mechanisms and changes of magnetic properties in thin films and heterostructures as a fundamental principle forming the volume of the arrays in the processes of direct laser sintering
- VI.21.05p V.A. Ivanov, **O.A. Goroshko***
* *Vladivostok State University of Economics and Service, Vladivostok, Russia*
Magnetic states and processes of magnetization reversal of one-dimensional arrays of ferromagnetic nanoparticles
- VI.21.06p R.D. Ivantsov, **O.S. Ivanova***, E.A. Petrakovskaja, Y.V. Zubavichus, Y.L. Mikhlin, I.S. Edelman
* *L.V. Kirenskiy Institute of Physics, Siberian Branch of RAS, Krasnoyarsk, Russia*
Magnetic nanoparticles origin in glasses co-doped with iron and gadolinium oxides
- VI.21.07p **O.A. Maximova***, N.N. Kosyrev, S.G. Ovchinnikov
* *Kirenskiy Institute of Physics of the SB RAS, Krasnoyarsk, Russia*
Development of spectroscopic magneto-ellipsometry for studying of magneto-optical properties of ferromagnetic nanostructures

- VI.21.08p **A.Yu. Milinskiy***, A.A. Antonov, S.V. Baryshnikov
** Blagoveshchensk State Pedagogical University, Blagoveshchensk, Russia*
 Dielectric studies of ammonium bisulfate (NH_4HSO_4), embedded into molecular sieves SBA-15
- VI.21.09p **V.S. Pechnikov***, A.V. Ansovich, V.V. Isakov
** Far Eastern Federal University, Vladivostok, Russia*
 Coercive forces and field interactions distribution of an amorphous alloy, using first order reversal curves
- VI.21.10p **V.S. Pechnikov**
** Far Eastern Federal University, Vladivostok, Russia*
 Magnetic phases of a Fe-Cr-B amorphous alloy in initial state
- VI.21.11p **T.A. Pisarenko***, G.S. Kraynova, A.M. Frolov
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
 Kinetics of the fractal defect mesostructure of melt-spun $\text{Fe}_{70}\text{Cr}_{15}\text{B}_{15}(\text{Sn})$ alloys during annealing
- VI.21.12p **G.A. Politova***, Yu.V. Korneeva, V.B. Chzhan, T.V. Kaminskaya, I.S. Tereshina, N.B. Kolchugina, G.S. Burkhanov
** Baikov Institute of Metallurgy and Materials Science RAS, Moscow, Russia*
 Features of structural and functional properties of Gd obtained by distillation purification
- VI.21.13p **V.S. Rudnev***, N.I. Steblevskaya, K.N. Kilin, M.A. Medkov, I.A. Tkachenko, M.V. Belobeletskaya, M.V. Adigamova, I.V. Lukiyanichuk, P.M. Nedozorov
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
 $\text{EuFeO}_3/\text{TiO}_2/\text{Ti}$ composites: formation, composition, magnetic and luminescent properties
- VI.21.14p **V.S. Rudnev***, I.V. Lukiyanichuk, M.V. Adigamova, V.P. Morozova, I.A. Tkachenko
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
 Nanocrystallites in the pores and magnetic properties of PEO coatings
- VI.21.15p **A.Yu. Samardak***, A.S. Samardak, E.V. Sukovatitcina, A.V. Ognev, E.B. Modin, L.A. Chebotkevich, E. Panahi-Danaei, F. Nasirpouri
** Far Eastern Federal University, Vladivostok, Russia*
 Analysis of first order reversal curves of template assisted CoNi nanowire arrays
- VI.21.16p **Yu.E. Samoshkina***, I.S. Edelman, E.A. Stepanova, K. Ollefs, N.V. Andreev, V.I. Chichkov, O.A. Maximova
** Kirensky Institute of Physics of SB RAS, Krasnoyarsk, Russia*
 Static magnetic properties and X-ray magnetic circular dichroism in $\text{Pr}_{1-x}\text{Sr}_x\text{MnO}_3$ polycrystalline films
- VI.21.17p Y.N. Kulchin, N.G. Galkin, **E.P. Subbotin***, V.M. Dolgoruk, D.S. Yatsko
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
 On the principles of the additive technology implementation of composite magnetic coating formation on non-magnetic substrates by laser welding of micro powders

- VI.21.18p **V.V. Tkachev***, D.A. Polyansky, V.S. Plotnikov, G.S. Krainova
* *Far Eastern Federal University, Vladivostok, Russia*
Surface and bulk inhomogeneities on amorphous metal foils based on Fe
- VI.21.19p L.A. Chekanova, **I.G. Vazenina***, E.A. Denisova, R.S. Iskhakov
* *Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russia*
The features of standing spin wave's spectra in granulated and gradient Co-based multilayer films
- VI.21.20p A.G. Kolesnikov, **Hao Wu***, M.E. Stebliy, A.V. Ognev, A.S. Samardak, L.A. Chebotkevich, Xiufeng Han
* *Institute of Physics, Chinese Academy of Sciences, Beijing, China*
Magnetic and magnetoresistance properties of the bilayers [CoNi]_n/Cu/[CoPt]_n with perpendicular anisotropy
- VI.21.21p **A.G. Maslovskaya***, T.K. Barabash, E.M. Veselova
* *Amur State University, Blagoveshchensk, Russia*
Domain dynamic and formation of polarization switching current in ferroelectrics under electron beam exposure
- VIII.21.01p **P.A. Danilov***, D.A. Zayarnyi, A.A. Ionin, S.I. Kudryashov, S.V. Makarov, A.A. Rudenko, T.H.T. Ngueng, I.A. Timkin, R.A. Khmel'nitsky, Yu.N. Kulchin, A.A. Kuchmizhak, O.B. Vitrik
* *Lebedev Physical Institute, Russian Academy of Science, Moscow, Russia*
Plazmonic nano- and microstructures to accelerate photoprocesses in the visible and infrared ranges
- VIII.21.02p **V.S. Egorkin***, I.E. Vyaliy, S.L. Sinebryukhov, S.V. Gnedenkov
* *Institute of Chemistry FEB RAS, Vladivostok, Russia*
Morphological features and electrochemical properties of the hydrophobized sealed PEO-coatings on Al alloy
- VIII.21.03p A.V. Vakhruchev, **A.Y. Fedotov***, A.V. Severyukhin
* *Institute of Mechanics, Ural Branch of the Russian Academy of Science, Izhevsk, Russia*
Numerical simulation of quantum dots and self-organization of nanostructures of special purpose
- VIII.21.04p N.B. Kondrikov, **A.S. Lapina***, I.V. Stepanov, G.I. Marinina, V.V. Korochentsev, V.G. Kuryavyi
* *Far Eastern Federal University, Vladivostok, Russia*
The formation of electrochemical sensors on the base nanostructured titanium dioxide received by anodic oxidation
- VIII.21.05p **E.B. Modin***, E.V. Pustovalov, A.V. Dubinets, A.N. Fedorets, V.S. Plotnikov, S.S. Grabchikov
* *Far Eastern Federal University, Vladivostok, Russia*
Atomic ordering and disordering in Co₈₀P₂₀ amorphous alloys structure
- VIII.21.06p D.G. Gromov, A.Yu. Trifonov, **A.I. Savitskiy***, S.V. Dubkov, E.A. Lebedev
* *National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Study of nucleation and growth of silver nanoparticles formed by physical condensation from vapor phase

- VIII.21.07p **M.S. Vasilyeva***, V.S. Rudnev, A.Yu. Ustinov
** Far Eastern Federal University, Vladivostok, Russia*
 Composition, structure, and catalytic activity of SiO₂+TiO₂/Ti and MnO_x+SiO₂+TiO₂/Ti composites formed by combination of the methods of plasma electrolytic oxidation, impregnation and annealing
- VIII.21.08p **A.S. Voronin***, F.S. Ivanchenko, M.M. Simunin, Y.V. Fadeev, A.V. Shiverskiy, S.V. Khartov
** Siberian Federal University, Krasnoyarsk, Russia*
 Mesh transparent electrodes obtained by means of self-organized silica template
- VIII.21.09p **R.N. Yaroslavtsev***, L.A. Chekanova, R.S. Iskhakov
** Siberian Federal University, Krasnoyarsk, Russia*
 The processes occurring at low temperature annealing in multilayer film structures of Co/Pd
- X.21.01p **K.S. Lukyanenko***, V.I Apanasevich
** Far Eastern Federal University, Vladivostok, Russia*
 Spectral characteristics of secondary radiation of cisplatin under cancer therapy
- X.21.02p **A.V. Puz'***, D.V. Mashtalyar, S.V. Gnedenkov, S.L. Sinebryukhov, A.G. Zavidnaya
** Institute of Chemistry FEB RAS, Vladivostok, Russia*
 Composite calcium-phosphate coatings on Mg-alloy for medicine

Poster session II

- II.24.01p **V.V. Atuchin***, S.V. Borisov, T.A. Gavrilova, K.A. Kokh, N.V. Kuratieva, N.V. Pervukhina
** Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia*
Physical vapor transport growth and morphology of Bi₂Se₃ microcrystals
- II.24.02p D.L. Goroshko, A.V. Shevlyagin, **E.A. Chusovitin***, K.N. Galkin, I.M. Chernev, N.G. Galkin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Spectral sensitivity and electroluminescence properties of GaSb based multilayer structure on Si(001)
- II.24.03p **D.L. Goroshko***, A.V. Shevlyagin, E.A. Chusovitin, K.N. Galkin, I.M. Chernev, N.G. Galkin
** Far Eastern Federal University, Vladivostok, Russia*
Formation of bulk and island layers of GaSb on silicon
- II.24.04p **J. Grecenkov***, V.G. Dubrovskii
** St. Petersburg Academic University, St. Peterburg, Russia*
Novel approach to describe polytypism in III-V nanowires
- II.24.05p D.L. Goroshko, **E.Y. Subbotin***, N.G. Galkin
** Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Formation and properties of thin layers of Mg₂Ge on silicon
- III.24.01p **D.V. Fomin***, V.L. Dubov, K.N. Galkin, D.L. Goroshko, N.G. Galkin, R.I. Batalov, V.A. Shustov
** Amur State University, Blagoveshchensk, Russia*
Formation, structure and optical properties of BaSi₂ films on Si substrates
- III.24.02p **T. Hattori***, T. Higashi, H. Tsukamoto, H. Yamaguchi, Y. Terai
** Graduate School of Science and Engineering, Kagoshima University, Kagoshima, Japan*
Effects of residual carrier density on I-V curves in β -FeSi₂ polycrystalline/Si heterojunctions
- III.24.03p **T. Higashi***, T. Hattori, H. Tsukamoto, H. Yamaguchi, Y. Terai
** Graduate School of Science and Engineering, Kagoshima University, Kagoshima, Japan*
Formation processes of β -FeSi₂ polycrystalline films with low carrier density
- III.24.04p **M.V. Rautskii***, A.V. Lukyanenko, A.S. Tarasov, I.A. Yakovlev, I.A. Tarasov, M.N. Volochaev, N.V. Volkov
** Kirensky Institute of Physics, Russian Academy of Sciences, Krasnoyarsk, Russia*
Ferromagnetic resonance of epitaxial monocrystal Fe₃Si film on the Si(111) substrate
- III.24.05p **H. Tsukamoto***, H. Yamaguchi, T. Hattori, T. Higashi, Y. Terai
** Graduate School of Science and Engineering, Kagoshima University, Kagoshima, Japan*
Photoreflectance study of surface Fermi level in β -FeSi₂ epitaxial films
- III.24.06p **H. Yamaguchi***, H. Tsukamoto, T. Hattori, T. Higashi, Y. Terai
** Graduate School of Science and Engineering, Kagoshima University, Kagoshima, Japan*
Polarized Raman spectra of β -FeSi₂(100)//Si(001) epitaxial film

- IV.24.01p **S.V. Dubkov***, D.G. Gromov, E.A. Ilyichev, Ya.S. Grishina, N.I. Borgardt, A.V. Sysa, A.A. Dronov, I.M. Gavrilin
* *National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Study of the process of formation and field emission properties of carbon nanopillars structure
- IV.24.02p **Yu.M. Nikolenko***, A.M. Ziatdinov
* *Institute of Chemistry FEB RAS, Vladivostok, Russia*
Nanographite films: structure and properties
- IV.24.03p **D.A. Olyanich***, V.V. Mararov, T.V. Utas, O.A. Utas, D.V. Gruznev, A.V. Zotov, A.A. Saranin
* *Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Influence of the surface potential relief on magic C60 islands formation
- VII.24.01p **V.V. Atuchin***, E.N. Galashov, A.P. Yelisseyev, M.S. Molokeev
* *Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia*
Deep red photoluminescence in MgO-GeO₂-BaF₂:Mn⁴⁺ phosphor
- VII.24.02p H.A. Novikov, **R.M. Bayazitov***, R.I. Batalov, I.A. Faizrakhmanov, G.D. Ivlev, S.L. Prokop'ev
* *Zavoisky Physical-Technical Institute of RAS, Kazan, Russia*
Structure-phase transitions in deposited Ge layers during pulsed laser annealing. Experiment and simulation
- VII.24.03p **M.V. Bozhenko***, E.A. Chusovitin, N.G. Galkin, E.V. Pustovalov, V.V. Tkachev, A.V. Nepomnyaschiy, V.V. Mararov, V.M. Astashinsky, A.M. Kuzmitsky
* *Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Spectral and kinetic properties of porous silicon previously developed by compressive plasma flow
- VII.24.04p S.A. Pyachin, **A.A. Burkov***, K.S. Makarevich, N.F. Karpovich, A.V. Zaytsev
* *IM FEB RAS, Khabarovsk, Russia*
Synthesis of TiO₂ nanopowder by spark erosion.
- VII.24.05p V.T. Shamirzaev, B.D. Zhukov, V.A. Gaisler, **T.S. Shamirzaev***
* *Novosibirsk State University, Novosibirsk, Russia*
Treatment and optical analysis of domestic and industrial wastewater
- IX.24.01p **V.V. Atuchin***, O.P. Andreeva, T.A. Gavrilova, I.V. Korolkov, E.A. Maximovskiy
* *Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia*
Synthesis of mesoporous CaMoO₄ in aqueous solution
- IX.24.02p **I.A. Bondarev***, A.S. Tarasov, M.V. Rautskii, D.A. Smolyakov, N. Dorofeev, A.V. Lukyanenko, S.N. Varnakov, S.G. Ovchinnikov, N.V. Volkov
* *Kirensky Institute of Physics, Russian Academy of Sciences, Krasnoyarsk, Russia*
Magnetoresistance of the Mn/SiO₂/p-Si Hybrid Structure
- IX.24.03p P. Mierczynski, **R. Ciesielski***, A. Kedziora, T.P. Maniecki
* *Technical University of Lodz, Lodz, Poland*
Methanol synthesis over novel multilayer catalyst Pd-Cu/Al₂O₃-CeO₂
- IX.24.04p P. Mierczynski, **R. Ciesielski***, A. Kedziora, T.P. Maniecki
* *Technical University of Lodz, Lodz, Poland*
Novel Ni-Pd/CeO₂-Al₂O₃ catalysts for hydrogen production via oxidative steam reforming of methanol for fuel cells

- IX.24.05p **A.A. Dimitriev***, T.A. Pisarenko, V.V. Balashev, V.V. Korobtsov, V.A. Vikulov
* *Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
The influence of substrate doping levels on the magnetic properties of Fe₃O₄/SiO₂/n-Si hybrid structure
- IX.24.06p **V.S. Egorkin***, I.E. Vyalyi, D.P. Opra, S.L. Sinebryukhov, S.V. Gnedenkov
* *Institute of Chemistry FEB RAS, Vladivostok, Russia*
Electrochemical and mechanical properties of the PVDF/PEO-coatings on magnesium alloy
- IX.24.07p **D.G. Gromov***, E.A. Lebedev, A.S. Shuliatyev, Yu.I. Shilyaeva, Y.P. Shaman, A.A. Pavlov, S.V. Dubkov
* *National Research University of Electronic Technology (MIET), Zelenograd, Russia*
Heat release process research and efficiency improving of Al-CuN_x multilayer thermite materials
- IX.24.08p **T.P. Maniecki***, P. Mierczynski, R. Ciesielski, A. Kędziora
* *Technical University of Lodz, Lodz, Poland*
Structuralized binary oxides MeO (Me=Co, Cr, Fe) – Al₂O₃ for catalytic application
- IX.24.09p **T.P. Maniecki**
Technical University of Lodz, Lodz, Poland
Transestrification of vegetable oil over bo-oxide layered catalysts
- IX.24.10p **P. Mierczynski***, O. Shtyka, R. Ciesielski, A. Kedziora, T.P. Maniecki
* *Technical University of Lodz, Lodz, Poland*
The effect of synthesis condition (temperature and atmosphere) of carbon nanotubes prepared by CVD method on their physicochemical properties
- IX.24.11p D.P. Opra, S.V. Gnedenkov, S.L. Sinebryukhov, N.M. Laptash, **A.A. Sokolov***
* *Institute of Chemistry FEB RAS, Vladivostok, Russia*
Fluorine substituted molybdenum oxide(VI) as cathode material for Li-ion battery
- IX.24.12p **A. Ozel***, I Ozsoy, Mimaroglu
* *University of Sakarya, Faculty of Technology, Esentepe Kampusu, Adapazari, Turkey*
Study of friction and wear of TiO₂ filled epoxy composite
- IX.24.13p A.A. Valeeva, **K.A. Petrovykh***, A.A. Rempel
* *Institute of Solid State Chemistry, Ural Branch of the RAS, Ekaterinburg, Russia*
Disordered titanium monoxide TiO_y nanoparticles prepared by high energy fragmentation of coarse-grained powders with different stoichiometry
- IX.24.14p D.P. Opra, **A.B. Podgorbunsky***, S.V. Gnedenkov, S.L. Sinebryukhov, A.A. Sokolov
* *Institute of Chemistry FEB RAS, Vladivostok, Russia*
Electrochemical performances of PbSnF₄-Al(OH)₃ two-phase composite as anode material for Li-ion battery
- IX.24.15p **A.A. Sergeev***, A.Y. Mironenko
* *Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
Sensitive coatings for luminescence detection of Cu(II) in solutions

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