



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

ASCO-NANOMAT 2018

PROGRAMME

Institute of Automation and Control Processes FEB RAS

Far Eastern Federal University

Vladivostok

2018

General information

Plenary talk – 40 minutes including questions

Ordinary talk – 15 minutes including questions

Coffee break – 20 minutes

Lunch – 90 minutes

Organizers

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



Far Eastern Federal University



The School-Conference is sponsored by

Institute of Chemistry FEB RAS



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



Sunday, 23 September

- 09:00 – 18:00 Participants arrival at the airport of Vladivostok, transportation and accommodation
17:00 – 19:00 Participants registration in the hotel at FEFU campus
19:00 – 21:00 *Welcome party (Café of FEFU)*

Monday, 24 September

- 08:00 – 08:30 Participants registration
08:30 – 08:50 Opening remarks
08:50 – 10:50 Plenary session
10:50 – 11:10 Coffee break
11:10 – 12:40 Physics of nanostructures and interfaces, self-organization processes
12:40 – 14:10 *Conference Photo and Lunch*
14:10 – 16:10 Plenary session
16:10 – 16:30 *Coffee break*
16:30 – 18:30 Physics of semiconducting nanostructures and heterostructures, including silicide, germanide and stannide heterostructures: experiment, calculations and technology
18:30 – 20:00 Poster session I
20:30 – 23:00 *Excursion “Night Vladivostok”*

Tuesday, 25 September

- 09:00 – 10:20 Plenary session
10:20 – 10:40 *Coffee break*
10:40 – 12:30 4th group material's alloy based on Si, Ge, Sn & Pb, C: formation, structure and properties
12:30 – 14:00 *Lunch*
14:00 – 16:00 Plenary session
16:00 – 17:45 Formation and properties of ferromagnetic and ferroelectric materials, a spintronics optoelectronics and electromechanics
17:45 – 18:00 *Coffee break*
18:00 – 20:00 Poster session II

Wednesday, 26 September

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

Thursday, 27 September

- 09:00 – 10:20 Plenary session
10:20 – 10:40 *Coffee break*
10:40 – 12:10 Optical materials and photonic crystals
12:10 – 13:40 *Lunch*
13:40 – 15:00 Plenary session
15:00 – 17:15 Nanostructured coverages, nanocomposites, functional hybrid materials: formation, structure and properties
17:15 – 17:35 *Coffee break*
17:35 – 18:45 Award ceremony and closing remarks
18:45 – 21:30 *Symposium Dinner (Café of FEFU)*

Friday, 28 September

- 09:00 – 22:00 Participants departure

**Programme of the Fourth Asian School-Conference on Physics and
Technology of Nanostructured Materials
ASCO-NANOMAT 2018**

SUNDAY, 23 SEPTEMBER

- 09:00 – 18:00 Participants arrival at the airport of Vladivostok, transportation and accommodation
17:00 – 19:00 Participants registration in the hotel at FEFU campus
19:00 – 21:00 *Welcome party (Café of FEFU)*

MONDAY, 24 SEPTEMBER

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

Opening remarks **08:30 – 08:50**

Chairman: A.A. Saranin

Plenary session **08:50 – 10:50**

- PS.24.01i **A.V. Dvurechenskii**
Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia
Optical and spin phenomena in silicon based quantum dot heterostructures
- PS.24.02i F. Rovaris, R. Bergamaschini, **F. Montalenti**
L-NESS and Materials Science Department, University of Milano-Bicocca, Milano, Italy
Continuum modeling of semiconductor heteroepitaxial growth including both elastic and plastic relaxation
- PS.24.03i **D. Vyalikh**
Donostia International Physics Center (DIPC), Departamento de Fisica de Materiales and CFM-MPC UPV/EHU, San Sebastian, Spain
ARPES insight into the exotic magnetism and strong electron correlations at the surface and in the bulk of rare-earth intermetallics

Coffee break **10:50 – 11:10**

Physics of nanostructures and interfaces, self-organization processes Chairman: F. Montalenti
11:10 – 12:40

- I.24.01o **L.V. Bondarenko¹**, A.Y. Tupchaya¹, D.V. Gruznev^{1,2}, A.V. Zotov^{1,2,3},
A.A. Saranin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Vladivostok State University of Economics and Service, Vladivostok, Russia*
Atomic and electronic structure of Si(111)6x6-Au surface

- I.24.02o **H. Toyama**¹, H. Huang¹, T. Nakamura¹, L.V. Bondarenko², A.Y. Tupchaya², D.V. Gruznev², A. Takayama¹, A.V. Zotov^{2,3}, A.A. Saranin^{2,3}, S. Hasegawa¹
¹*Department of Physics, School of Science, University of Tokyo, Japan*
²*Institute of Automation and Control Processes, Vladivostok, Russia*
³*School of Natural Science, Far Eastern Federal University, Vladivostok, Russia*
Superconductivity of Pb ultrathin film on Ge(111) surface
- I.24.03o **I. Krasnikov**¹, A. Seteikin¹, B. Roth², M. Meinhardt-Wollweber²
¹*Amur State University, Blagoveschensk, Russia*
²*Hannover Centre for Optical Technologies, Leibniz University Hannover, Hannover, Germany*
Monte Carlo modeling of Raman scattering in multilayer turbid media
- I.24.04o **N.S. Saenko**, A.M. Ziatdinov
Institute of Chemistry FEB RAS, Vladivostok, Russia
Full-profile approximation of the X-ray diffraction pattern for nanographite powder including γ -band by taking into account a radial distribution of interatomic distances
- I.24.05o **I.A. Kibirev**^{1,2}, A.V. Matetskiy¹, A.V. Zotov^{1,2,3}, A.A. Saranin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Department of Electronics, Vladivostok State University of Economics and Service, Vladivostok, Russia*
Electronic topological transition in InSe thin films
- I.24.06o **P.D. Andriushchenko**^{1,2}, Y.A. Shevchenko^{1,2}, A.G. Makarov^{1,2}, K.V. Nefedev^{1,2}
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Applied Mathematics of FEB RAS, Vladivostok, Russia*
The heat capacity of honeycomb lattice with long- and short-range interactions

Conference Photo and Lunch

12:40 – 14:10

Chairman: *A.V. Dvurechenskii*

Plenary session

14:10 – 16:10

- PS.24.04i **T. Suemasu**, R. Takabe, T. Deng, T. Sato, Z. Xu, Y. Yamashita, K. Kodama, S. Matsuno, K. Toko
University of Tsukuba, Tsukuba, Japan
Present status and future prospect of BaSi₂ solar cells
- PS.24.05i **D.B. Migas**¹, V.O. Bogorodz¹, A.B. Filonov¹, A.Yu. Alexeev¹, V.E. Borisenko¹, N.V. Skorodumova^{2,3}
¹*Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus*
²*Multiscale Materials Modelling, Department of Materials and Engineering, Royal Institute of Technology (KTH), Stockholm, Sweden*
³*Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden*
New 2D-like structures based on ultrathin Mg₂X (X = Si, Ge, Sn) films
- PS.24.06i

Coffee break

16:10 – 16:30

Physics of semiconducting nanostructures and heterostructures, including silicide, germanide and stannide heterostructures: experiment, calculations and technology

Chairman: *V.Y. Nazarov*

16:30 – 18:30

- III.24.01o **T. Deng**, T. Sato, Z. Xu, R. Takabe, S. Yachi, Y. Yamashita, K. Toko, T. Suemasu
University of Tsukuba, Tsukuba, Japan
Towards BaSi₂ homojunction solar cells on Si(001)
- III.24.02o **E.A. Chusovitin**¹, D.L. Goroshko^{1,2}, N.G. Galkin^{1,2}, S.V. Chusovitina¹
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Si matrix charge state influence on photoresponse of Si layer with embedded β-FeSi₂ nanocrystals
- III.24.03o **Yu.V. Luniakov**
Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
New phases of high pressure Mg₂Si: an extensive first principle structure search
- III.24.04o **O.V. Volovlikova**¹, S.A. Gavrilov¹, G.O. Silakov¹, A.A. Polohin², Yu.P. Shaman², A.A. Dudin³, A.V. Zheleznyakova¹
¹*National Research University of Electronic Technology (MIET), Zelenograd, Moscow, Russia*
²*Scientific-Manufacturing Complex “Technological Centre” MIET, Zelenograd, Moscow, Russia*
³*Institute of Nanotechnology of Microelectronics, Russian Academy of Sciences, Moscow, Russia*
The synthesis of the porous silicon powder by Pd-assisted chemical etching
- III.24.05o A.A. Spirina^{1,2}, A.G. Nastovjak¹, **N.L. Shwartz**^{1,2}
¹*Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia*
²*Novosibirsk State Technical University, Novosibirsk, Russia*
Surface orientation influence on the characteristics of GaAs substrates high-temperature annealing
- III.24.06o **A.S. Tarasov**^{1,2}, I.A. Bondarev^{1,2}, M.V. Rautskii¹, A.V. Lukyanenko^{1,2}, D.A. Smolyakov¹, T.E. Smolyarova^{1,2}, I.A. Tarasov¹, S.N. Varnakov¹, S.G. Ovchinnikov^{1,2}, N.V. Volkov¹
¹*Kirensky Institute of Physics, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia*
²*Institute of Engineering Physics and Radio Electronics, Siberian Federal University, Krasnoyarsk, Russia*
Iron silicide hybrid structures: magnetoimpedance and spin accumulation effect
- III.24.07o **A.S. Gournik**¹, A.M. Maslov^{1,2}, A.V. Gerasimenko³
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Institute of Chemistry FEB RAS, Vladivostok, Russia*
Mg₂Si formation at high temperatures by pulse deposition of Mg onto Si(111)

III.24.08o **I.A. Yakovlev**, B.A. Belyaev, S.N. Varnakov, S.G. Ovchinnikov
Kirensky Institute of Physics, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia
The magnetic anisotropy of Fe₃Si synthesized at magnetic field by MBE

Poster session I **18:30 – 20:00**

Excursion “Night Vladivostok” **20:30 – 23:00**

TUESDAY, 25 SEPTEMBER

Chairman: *T. Suemasu*

Plenary session **09:00 – 10:20**

PS.25.01i **V.A. Bykov**^{1,2}, A. Kalinin^{1,2}, V. Polyakov¹, A. Shelaev^{1,2}
¹*NT-MDT-Spectral Instruments Companies Group, www.ntmdt-si.com*
²*Moscow Institute of Physics and Technology*
Modern possibilities of scanning probe methods for complex analysis of surface

PS.25.02i **S.A. Kukushkin**¹, A.V. Osipov¹, A.V. Luk'yanov²
¹*Institute of Problems of Mechanical Engineering of RAS (IPME RAS), St. Petersburg, Russia*
²*New Silicon Technologies Ltd., St. Petersburg, Russia*
Nano-assembly of SiC films on Si - a new method of growing low-defect epitaxial structures. Nanoscaled silicon carbide on silicon: a new bandgap material for micro- and optoelectronics

Coffee break **10:20 – 10:40**

4th group material's alloy based on Si, Ge, Sn & Pb: formation, structure and properties and properties Chairman: *D.B. Migas*
10:40 – 12:30

II.25.01o **H. Eguchi**, M. Iinuma, H. Hoshida, N. Murakoso, Y. Terai
Department of Computer Science and Electronics, Kyushu Institute of Technology, Fukuoka, Japan

Growth of Sb-doped β -FeSi₂ epitaxial films and optimization of donor activation conditions

II.25.02o **A.E. Klimov**^{1,2}, A.N. Akimov¹, V.S. Epov¹, E.V. Fedosenko¹, D.V. Ishchenko¹, N.S. Paschin¹, V.N. Sherstyakova¹, O.E. Tereshchenko^{1,3}

¹*Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia*

²*Novosibirsk State Technical University, Novosibirsk, Russia*

³*Novosibirsk State University, Novosibirsk, Russia*

The effect of surface on conductivity of PbSnTe:In/BaF₂ topological crystalline insulator in space charge limited current regimes

- II.25.03o **H. Hirofumi**¹, N. Murakoso¹, T. Suemasu², Y. Terai¹
¹*Department of Computer Science and Electronics, Kyushu Institute of Technology, Fukuoka, Japan*
²*Institute of Applied Physics, University of Tsukuba, Tsukuba, Japan*
Identification of Raman vibrational modes in BaSi₂ epitaxial film by depolarization ratio
- II.25.04o **D.A. Smolyakov**¹, N.V. Volkov¹, A.N. Masyugin², A.S. Tarasov¹, M.V. Rautskii¹, A.V. Lukyanenko¹, M.N. Volochaev^{1,2}, I.A. Yakovlev^{1,2}
¹*Kirensky Institute of Physics, Krasnoyarsk, Russia*
²*Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia*
Investigation of silicon-based hybrid structures of different composition
- II.25.05o **I.A. Tambasov**¹, A.S. Voronin², N.P. Evsevskaya³, M.N. Volochayev^{1,4}, A.S. Aleksandrovsky¹, S.R. Abelian¹, E.V. Tambasova⁴
¹*Kirensky Institute of Physics, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia*
²*Federal Research Centre Krasnoyarsk Scientific Center of the Siberian Branch of Russian Academy of Sciences, Krasnoyarsk, Russia*
³*Institute of Chemistry and Chemical Technology, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia*
⁴*Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia*
Thermoelectric properties of optically transparent thin films based on single-walled carbon nanotubes
- II.25.06o **D.L. Goroshko**^{1,2}, E.Y. Subbotin¹, K.N. Galkin¹, S.A. Dotsenko^{1,2}, E.A. Chusovitin¹, A.K. Gutakovskii^{3,4}, A.A. Usenko⁵, V.V. Khovailo⁵
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia*
⁴*Novosibirsk State University, Novosibirsk, Russia*
⁵*National University of Science and Technology, Moscow, Russia*
Thermoelectric properties of nanostructured material based on Si and GaSb
- II.25.07o A. Paddubskaya¹, **P. Kuzhir**^{1,2}, A. Stepanov², G. Remnev², T. Kaplas³, Y. Svirko³
¹*Institute for Nuclear Problems of Belarusian State University, Minsk, Belarus*
²*Tomsk Polytechnic University, Tomsk, Russia*
³*Institute of Photonics, University of Eastern Finland, Joensuu, Finland*
Graphene based passive THz devices: impact of high intensity pulse ion beam

Lunch

12:30 – 14:00

Chairman: S.A. Kukushkin

Plenary session

14:00 – 16:00

- PS.25.03i D.Y. Nam¹, A.Yu. Samardak², Y.S. Jeon¹, S.H. Kim¹, A.V. Davydenko², A.V. Ognev², L.A. Chebotkevich², A.S. Samardak^{2,3}, **Young Keun Kim**¹
¹*Korea University, Seoul, Korea*
²*Far Eastern Federal University, Vladivostok, Russia*
³*National Research South Ural State University, Chelyabinsk, Russia*
Magnetization reversal of Co and CoFe nanosprings

- PS.25.04i **X. F. Han**
Institute of Physics, University of Chinese Academy of Sciences, Chinese Academy of Sciences, Beijing, China
 Magnon valve effect
- PS.25.05i **O.A. Tretiakov**^{1,2}
¹*Institute for Materials Research, Tohoku University, Sendai, Japan*
²*School of Physics, The University of New South Wales Sydney NSW 2052, Australia*
 Skyrmionics in ferromagnets and antiferromagnets

Formation and properties of ferromagnetic and ferroelectric materials, a spintronics optoelectronics and electromechanics

Chairman: Y.K. Kim

16:00 – 17:45

- IV.25.01o **R.G. Burkovsky**¹, D.A. Andronikova², I.A. Bronwald¹, M.A. Kniazeva¹, A.V. Filimonov¹
¹*Peter the Great Saint-Petersburg Polytechnic University, St.-Petersburg, Russia*
²*Ioffe Institute, St.-Petersburg, Russia*
 Structure of incommensurate phases in antiferroelectrics PbZrO₃ and PbHfO₃ at high pressures
- IV.25.02o **E.V. Pustovalov**, A.N. Ferdorets, E.B. Modin, V.V. Tkachev, V.S. Plotnikov
Far Eastern Federal University, Vladivostok, Russia
 3D structure of thin films by means of focal series
- IV.25.03o **A.S. Samardak**¹, A.G. Kolesnikov¹, A.V. Ognev¹, L.A. Chebotkevich¹, A.V. Sadovnikov^{2,3}, S.A. Nikitov^{2,3}, Y.J. Kim⁴, I.H. Cha⁴, Y.K. Kim⁴
¹*Laboratory of thin film technologies, School of Natural Sciences, Far Eastern Federal University, Vladivostok, Russia*
²*Laboratory "Metamaterials", Saratov State University, Saratov, Russia*
³*Kotel'nikov Institute of Radioengineering and Electronics, Russian Academy of Sciences, Moscow, Russia*
⁴*Department of Materials Science and Engineering, Korea University, Seoul, Korea*
 Additive chiral interaction on interfaces of "heavy metal/ferromagnet" structures for enhancement of the Dzyaloshinskii–Moriya interaction
- IV.25.04o **M.E. Steblyi**, A.G. Kolesnikov, A.V. Ognev, A.S. Samardak, A.V. Davydenko, L.A. Chebotkevich
Far Eastern Federal University, Vladivostok, Russia
 Influence of W layer on spin-orbit torques in Ru/Co/Ru films
- IV.25.05o **T.A. Pisarenko**^{1,2}, V.V. Balashev^{1,2}, V.V. Korobtsov^{1,2}, A.A. Dimitriev^{1,2}, V.A. Vikulov¹
¹*Institute of Automation and Control processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
 The lateral photovoltaic effect in Fe/SiO₂/Si structure with different silicon conductivity type
- IV.25.06o **N.I. Plusnin**
Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
 Epitaxial metallic spin injector for spin-devices with field control channel on silicon substrate: review

- IV.25.07o **A.V. Davydenko**¹, A.G. Kozlov¹, V.P. Berdnikov¹, G.S. Suslin¹, M.E. Steblyy¹,
A.V. Ognev¹, A.S. Samardak¹, A.V. Sadovnikov^{2,3}, S.A. Nikitov^{2,3},
L.A. Chebotkevich¹
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Laboratory “Metamaterials”, Saratov State University, Saratov, Russia*
³*Kotel'nikov Institute of Radioengineering and Electronics, Russian Academy of Sciences,
Moscow, Russia*
Tuning of Dzyaloshinskii-Moriya interaction and magnetic structure in
symmetric crystalline [Co/Pd(111)]_n superlattices by variation of Co
thickness

Coffee break **17:45 – 18:00**

Poster session II **18:00 – 20:00**

WHENSDAY, 26 SEPTEMBER

**Excursion to the
Institute of Automation and Control Processes FEB RAS** **09:00 – 12:00**

Lunch (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**

THURSDAY, 27 SEPTEMBER

Chairman: *I. Terai*

Plenary session **09:00 – 10:20**

- PS.27.01i **T.S. Shamirzaev**
Rzhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk, Russia
Exciton recombination and spin dynamics in indirect band gap
heterostructures
- PS.27.02i Y. Huang¹, Y. Kumazawa², S. Kusazaki², Y. Saito², V. Saxena², K. Konishi³,
Y. Kujime³, T. Kato³, K. Tanaka³, **H. Tatsuoka**²
¹*Graduate School of Science and Technology, Shizuoka University, Hamamatsu, Japan*
²*Graduate School of Integrated Science and Technology, Shizuoka University, Hamamatsu,
Japan*
³*Faculty of Engineering, Shizuoka University, Hamamatsu, Japan*
Morphological and structural modifications of Si-based nanostructures
synthesized from metal silicide templates in IP6, acid and metal
chloride solutions

Coffee break **10:20 – 10:40**

Optical materials and photonic crystals

Chairman: H. Tatsuoka

10:40 – 12:10

- V.27.01o **A.A. Sergeev**^{1,2}, K.A. Sergeeva², A.A. Leonov^{1,2}, I.V. Postnova², S.S. Voznesenskiy^{1,2}, Yu.N. Kulchin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Manganese-doped zinc sulfide quantum dots for methane detection in aqueous media
- V.27.02o A.E. Nazirov¹, A.V. Pestov², E.B. Modin¹, Yu.O. Privar¹, **A.Yu. Mironenko**¹, S.Yu. Bratskaya¹
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*I. Ya. Postovsky Institute of Organic Synthesis, Ural Branch of RAS, Yekaterinburg, Russia*
Ligand-assisted synthesis of ZnSe quantum dots in solutions of carboxyalkyl chitosan derivative
- V.27.03o V.I. Ivanov, **V.K. Khe**, V.I. Krylov, D.A. Synnikov
Far Eastern State Transport University, Khabarovsk, Russia
Optical method for formation of nanostructures in nanosuspension
- V.27.04o **S.O. Gurbatov**^{1,2}, A.A. Kuchmizhak^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Mapping the refractive index of dielectric surfaces with spherical plasmonic nanoantenna
- V.27.05o **S.V. Dubkov**¹, D.G. Gromov¹, A.I. Savitskiy¹, A.Yu. Trifonov², Yu.P. Shaman³, A.A. Polokhin³, A.A. Dudin⁴
¹*National Research University of Electronic Technology, Moscow, Zelenograd, Russia*
²*Institute of Physical Problems named after F.V. Lukin, Moscow, Zelenograd, Russia*
³*SMC «Technological Centre», Moscow, Zelenograd, Russia*
⁴*Institute of Nanotechnology of Microelectronics of the RAS, Moscow, Russia*
Influence of nanostructures parameters based on Au, Ag, Au-Ag nanoparticles formed by thermal evaporation in vacuum on amplification of the Raman scattering
- V.27.06o **A.N. Galkina**¹, R.V. Romashko^{1,2}, A.A. Sergeev¹, A.A. Leonov²
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far eastern Federal University, Vladivostok, Russia*
Static and dynamic sorption of free amines on surface of carbon nanotubes modified with nanolayers of polymers

Lunch

12:10 – 13:40

Chairman: X. F. Han

Plenary session

13:40 – 15:00

- PS.27.03i **E.B. Modin**
CIC nanoGUNE Consolider, San Sebastian, Spain
Advanced three-dimensional electron microscopy characterization of nanomaterials

- PS.27.04i **V.U. Nazarov¹**, V.M. Silkin^{2,3,4}, E.E. Krasovskii^{2,3,4}
¹*Research Center for Applied Sciences, Academia Sinica, Taipei 11529, Taiwan*
²*Departamento de Física de Materiales, Facultad de Ciencias Químicas, Universidad del País Vasco/Euskal Herriko Unibertsitatea, San Sebastián/Donostia, Basque Country, Spain*
³*List Donostia International Physics Center (DIPC), San Sebastián/Donostia, Basque Country, Spain*
⁴*Ikerbasque, Basque Foundation for Science, Bilbao, Spain*
 Electron energy-loss spectroscopy of quasi-two-dimensional crystals: beyond the energy-loss functions formalism

Nanostructured coverages, nanocomposites, functional hybrid materials: formation, structure and properties

Chairman: *T.S. Shamirzaev*

15:00 – 17:15

- VI.27.01o **V.V. Khovailo**, A.A. Usenko, A.I. Voronin
National University of Science and Technology "MISIS", Moscow, Russia
 Impact of nanoinclusions on thermoelectric properties of skutterudites and SiGe alloys
- VI.27.02o M.M. Mikhailov¹, **V.V. Neshchimenko²**, Chundong Li³
¹*Tomsk State University of Control Systems and Radio-electronics, Tomsk, Russia*
²*Amur State University, Blagoveshchensk, Russia*
³*Harbin Institute of Technology, Harbin, China*
 Effect of the surface morphology of zinc oxide particles on their radiation stability
- VI.27.03o **A.S. Gnedenkov¹**, S.L. Sinebryukhov¹, D.V. Mashtalyar^{1,2}, V.S. Egorkin^{1,2}, I.E. Vyaliy¹, S.V. Gnedenkov^{1,2}
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far East Federal University, Vladivostok, Russia*
 Anticorrosion PEO-coating as the effective way of aluminum alloys protection
- VI.27.04o **A.B. Podgorbunsky¹**, T.F. Antokhina¹, N.N. Savchenko¹, A.A. Sokolov², S.L. Sinebryukhov¹, S.V. Gnedenkov¹
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far East Federal University, Vladivostok, Russia*
 Properties of a new superionic compounds (NH₄)₆LiZr_{4-n}Hf_nF₂₃ (n=1, 3)
- VI.27.05o **D.P. Opra¹**, S.V. Gnedenkov^{1,2}, S.L. Sinebryukhov¹, A.A. Sokolov^{1,2}
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far East Federal University, Vladivostok, Russia*
 Doped TiO₂(B) as high performance anode for lithium storage: strategy and principles
- VI.27.06o V.S. Egorkin^{1,2}, **I.E. Vyaliy¹**, N.S. Svirirdov², A.N. Minaev^{1,2}, S.L. Sinebryukhov¹, S.V. Gnedenkov¹
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far East Federal University, Vladivostok, Russia*
 Formation and electrochemical properties of the hydrophobic composite coatings on aluminum alloy

VI.27.07o	N.B. Kondrikov ¹ , P.L. Titov ¹ , S A. Shegoleva ¹ , A.S. Lapina ¹ , V.G. Kuryavyi ² , M.A. Khorin ¹ , A.K. Runov ¹ ¹ <i>Far Eastern Federal University, Vladivostok, Russia</i> ² <i>Institute of Chemistry FEB RAS, Vladivostok, Russia</i> The preparation, self-organisation and properties of nanostructured metal-oxidizing coatings formed by anodic oxidation
VI.27.08o	M.I. Dvornik , E.A. Mikhailenko <i>Institute of Materials FEB RAS, Khabarovsk, Russia</i> Fabrication of nanostructured gradient tungsten-cobalt alloy using carbon deficiency powder
VI.27.09o	V.S. Rudnev ^{1,2} , I.V. Lukiyanchuk ¹ , M.S. Vasiliyeva ^{1,2} , A.A. Zvereva ¹ ¹ <i>Institute of Chemistry FEB RAS, Vladivostok, Russia</i> ² <i>Far Eastern Federal University, Vladivostok, Russia</i> Thermally stimulated transformation of the surface nanoarchitecture of Ni-and Cu-doped oxide coatings on titanium
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<i>Coffee break</i>	<i>17:15 – 17:35</i>
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Award ceremony and closing remarks	17:35 – 18:45
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<i>Symposium Dinner (Café of FEFU)</i>	18:45 – 21:30
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FRIDAY, 28 SEPTEMBER

Participants departure	09:00 – 22:00
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POSTER SESSION I, 24 SEPTEMBER

- I.24.01p **N.V. Denisov¹**, A.V. Matetskiy¹, O.A. Utas¹, V.G. Kotlyar¹, D.V. Gruznev¹, L.V. Bondarenko¹, A.Y. Tupchaya¹, A.N. Mihalyuk^{1,2}, A.V. Zotov^{1,3}, A.A. Saranin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Vladivostok State University of Economics and Service, Vladivostok, Russia*
Study of atomic and electronic structure of Si(100) $\sqrt{2}\times\sqrt{2}$ -(Au/Tl) surface reconstruction
- I.24.02p **K.V. Ignatovich**
Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
Second-Harmonic Generation from bismuth on Si(111) surface
- I.24.03p **K.V. Ignatovich**
Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia
Investigation of initial stages of growth Pb on Si(111) surface by second harmonic generation
- I.24.04p N.V. Denisov¹, A.A. Alekseev¹, O.A. Utas¹, **S.G. Azatyan¹**, A.V. Zotov^{1,2,3}, A.A. Saranin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*School of Natural Sciences, Far Eastern Federal University, Vladivostok, Russia*
³*Vladivostok State University of Economics and Service, Vladivostok, Russia*
Bismuth-indium surface compounds on Si(111) and their modification with sodium
- I.24.05p E.P. Kitsyuk¹, E.A. Lebedev², A.S. Nartov¹, **R.M. Ryazanov¹**, A.A. Shamanaev³
¹*Scientific-manufacturing company "Technological Centre", Zelenograd, Moscow, Russia*
²*National Research University of Electronic Technology, Zelenograd, Moscow, Russia*
³*Institute of Nanotechnology of Microelectronics of the RAS, Moscow, Russia*
Improvement of electron field emission from carbon nanotubes by Ba(NO₃)₂ treatment
- I.24.06p **M.V. Ivanchenko^{1,2}**, E.A. Borisenko¹, M.V. Ryzhkova¹, D.A. Tsukanov^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Conductivity study of initial stages of β -PdBi₂ formation on Bi/Si(111)
- I.24.07p **M.V. Ryzhkova¹**, D.A. Tsukanov^{1,2}, E.A. Borisenko¹, M.V. Ivanchenko^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Study of sodium adsorption on Pb/Si(111) surfaces
- I.24.08p **A.M. Ziatdinov¹**, P.G. Skrylnik¹, V.G. Makotchenko²
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Nikolaev Institute of Inorganic Chemistry of SB RAS, Novosibirsk, Russia*
Films of reduced graphene oxide with percolation nets of nanographenes
- I.24.09p **T.V. Utas¹**, D.A. Olyanich¹, V.V. Mararov^{1,2}, A.V. Zotov^{1,2,3}, A.A. Saranin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*School of Natural Sciences, Far Eastern Federal University, Vladivostok, Russia*
³*Department of Electronics, Vladivostok State University of Economics and Service, Vladivostok, Russia*
Fullerene trilliumene on Pb/Si(111) surface

- I.24.10p **D.A. Olyanich¹**, V.V. Mararov¹, T.V. Utas¹, A.V. Zotov^{1,2}, A.A. Saranin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*School of Natural Sciences, Far Eastern Federal University, Vladivostok, Russia*
Granular C₆₀ layer on Si(111)-Ti surface
- I.24.11p I.A. Tarasov¹, **T.E. Smolyarova^{1,2}**, I.A. Yakovlev¹, A.V. Lukyanenko^{1,2},
S.A. Lyashchenko¹, I.V. Nemtsev¹
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk, Russia*
²*Siberian Federal University, 79 Svobodny Pr., Krasnoyarsk 630041, Russia*
Hybrid Au-Fe crystalline nanoparticles obtained by MBE
- II.24.01p **A.A. Spirina^{1,2}**, I.G. Neizvestny^{1,2}, N.L. Shwartz^{1,2}
¹*Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia*
²*Novosibirsk State Technical University, Novosibirsk, Russia*
Examination of GaAs and InAs Langmuir evaporation by simulation
- II.24.02p **E.Y. Subbotin¹**, E.A. Chusovitin¹, S.V. Chusovitina¹, D.L. Goroshko^{1,2},
K.N. Galkin¹, A.K. Gutakovskii^{3,4}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia*
⁴*Novosibirsk State University, Novosibirsk, Russia*
High density arrays of GaSb islands on Si(111) and Si(001) formed by solid phase epitaxy
- II.24.03p **S.V. Chusovitina¹**, E.Y. Subbotin¹, E.A. Chusovitin¹, D.L. Goroshko^{1,2},
K.N. Galkin¹
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Formation and temperature stability of GaSb film grown on Si(111) by solid phase epitaxy
- II.24.04p **S.A. Dotsenko^{1,2}**, D.L. Goroshko^{1,2}, E.A. Chusovitin¹, S.A. Kitan¹, K.N. Galkin¹,
N.G. Galkin^{1,2}
¹*Institute of Automation and Control processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Optical properties of Si_{1-x}Sn_x films grown by low-temperature molecular beam epitaxy on Si(111)
- II.24.05p **S.A. Balagan¹**, D.L. Goroshko^{1,2}, V.U. Nazarov³, N.G. Galkin^{1,2}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Research Center for Applied Sciences, Academia Sinica, Taipei 11529, Taiwan*
Ab-initio calculation of phonon spectrum and thermal conductivity of Si with embedded GaSb nanocrystals
- II.24.06p N.G. Galkin¹, **D.T. Yan²**, K.N. Galkin¹, E.A. Chusovitin¹, M.V. Bozhenko¹
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern State Transport University, Khabarovsk, Russia*
Comparative analysis of the effect of immersion of porous silicon in solutions of LiBr and Fe(NO₃)₃ on the stability and intensity of its photoluminescence

- II.24.07p **A.V. Lukyanenko**^{1,2}, A.S. Tarasov^{1,2}, I.A. Bondarev^{1,2}, M.V. Rautskii¹, T.E. Smolyarova^{1,2}, A.N. Masyugin³, F.V. Zelenov², I.A. Yakovlev¹, S.N. Varnakov¹, S.G. Ovchinnikov^{1,2}, N.V. Volkov¹
¹*Kirensky Institute of Physics, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia*
²*Institute of Engineering Physics and Radio Electronics, Siberian Federal University, Krasnoyarsk, Russia*
³*Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia*
Silicon nanowire field-effect transistors. Technology and characterization
- III.24.01p **D.V. Fomin**¹, V.L. Dubov¹, K.N. Galkin², N.G. Galkin², S.A. Pyachin³, A.A. Burkov³
¹*Amur State University, Blagoveshchensk, Russia*
²*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
³*Institute of Materials Science FEB RAS, Khabarovsk, Russia*
The formation and crystalline properties of thin BaSi₂ films obtained by Ba and Si co-deposition and annealing on a Si(111) substrate
- III.24.02p **M.A. Visotin**^{1,2}, I.A. Tarasov¹, A.S. Fedorov^{1,2}, S.G. Ovchinnikov^{1,2}
¹*Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russia*
²*Siberian Federal University, Krasnoyarsk, Russia*
The role of surface energy in α -FeSi₂ nanocrystal orientation on Si(001): density functional study
- III.24.03p **N.G. Galkin**^{1,2}, K.N. Galkin¹, I.M. Chernev¹, D.L. Goroshko^{1,2}, E.A. Chusovitin¹, A.V. Shevlyagin¹, A.A. Usenko³, V.V. Khovailo³
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*National University of Science and Technology, Moscow, Russia*
Comparison of the structural, optical and thermoelectrical properties of Ca silicide films with variable composition on Si substrates
- III.24.04p **S.V. Chusovitina**¹, A.S. Gouralnik¹, S.A. Dotsenko¹, V.A. Ivanov², I.V. Tkachenko³
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Institute of Chemistry FEB RAS, Vladivostok, Russia*
Magnetism in exchange coupled Fe-Si 3-layers with controlled composition profile
- III.24.05p **S.A. Lyaschenko**¹, O.A. Maximova^{1,2}, D.V. Shevtsov¹, I.A. Yakovlev¹, I.A. Tarasov¹, S.N. Varnakov¹, S.G. Ovchinnikov^{1,2}
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk, Russia*
²*Siberian Federal University, Krasnoyarsk, Russia*
Measurements of the optical and magneto-optical properties of Fe-Si layer structures at different temperatures
- III.24.06p **K.N. Galkin**¹, D.L. Goroshko^{1,2}, E.A. Chusovitin¹, N.G. Galkin^{1,2}, A.K. Gutakovskii^{3,4}
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia*
⁴*Novosibirsk State University, Novosibirsk, Russia*
Formation of iron silicide nanowires on Si(111) by solid phase epitaxy

III.24.07p

I.A. Tarasov¹, M.A.Visotin^{1,2}, M.N.Volochaev^{1,3}, L.A. Solovyov⁴,
A.S. Aleksandrovsky^{1,2}, M.V. Rautskii¹, V.S. Zhandun¹, I.A. Yakovlev¹,
I.V. Nemtsev¹, S.N.Varnakov¹, S.G.Ovchinnikov¹

¹*Kirensky Institute of Physics, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia*

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⁴*Institute of Chemistry and Chemical Technology, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia*

Tuning the magnetic, transport and optical properties of FeSi₂ nanocrystals

POSTER SESSION II, 25 SEPTEMBER

- IV.25.01p **A.G. Kolesnikov**, M.E. Steblyy, A.V. Ognev, A.S. Samardak, L.A. Chebotkevich
Far Eastern Federal University, Vladivostok, Russia
Nucleation, stability and current induced motion of skyrmionium
- IV.25.02p **I.G. Iliushin**, S.V. Anisimov, L.L. Afremov
Far Eastern Federal University, Vladivostok, Russia
The oxidation effect on the blocking temperature and magnetic characteristics of nanosized magnetite particles
- IV.25.03p D.S. Neznakhin¹, **G.A. Politova**^{2,3}, L.A. Ivanov³, M.A. Paukov^{4,5},
E.A. Tereshina-Chitrova⁶, D.I. Gorbunov⁷, I.S. Tereshina³, N.V. Kudrevatykh¹
¹*Institute of Natural Sciences, Ural Federal University, Yekaterinburg, Russia*
²*Baikov Institute of Metallurgy and Materials Science RAS, Moscow, Russia*
³*Lomonosov Moscow State University, Faculty of Physics, Moscow, Russia*
⁴*Charles University, Faculty of Mathematics and Physics, Prague, Czech Republic*
⁵*Immanuel Kant Baltic Federal University, Kaliningrad, Russia*
⁶*Institute of Physics, ASCR, 18221, Prague, Czech Republic*
⁷*Dresden High Magnetic Field Laboratory (HLD-EMFL), Helmholtz-Zentrum Dresden-Rossendorf, D-01314 Dresden, Germany*
Low-temperature magnetic hysteresis in Nd (Pr)-Fe-B nanostructured alloys with 2-14-1 type main phase composition
- IV.25.04p **A.Yu. Samardak**¹, A.V. Ognev¹, A.G. Kolesnikov¹, M.E. Steblyy¹,
A.V. Gerasimenko², L.A. Chebotkevich¹, A.S. Samardak¹
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Chemistry FEB RAS, Vladivostok, Russia*
Effect of annealing on magnetic properties and the interfacial Dzyaloshinskii-Moriya interaction of Ru/Co/W/Ru films
- IV.25.05p **O.A. Maximova**^{1,2}, S.A. Lyaschenko¹, D.V. Shevtsov¹, I.A. Yakovlev¹,
S.G. Ovchinnikov^{1,2}
¹*Kirensky Institute of Physics of SB RAS, Krasnoyarsk, Russia*
²*Siberian Federal University, Krasnoyarsk, Russia*
Development of techniques for processing data from magneto-ellipsometry measurements
- IV.25.06p **E.V. Pustovalov**, A.N. Ferdorets, V.V. Tkachev, V.S. Plotnikov
Far Eastern Federal University, Vladivostok, Russia
Atomic ordering and disordering of amorphous CoP alloy
- IV.25.07p **T.A. Pisarenko**^{1,2}, V.V. Balashev^{1,2}, V.V. Korobtsov^{1,2}, A.A. Dimitriev^{1,2},
V.A. Vikulov¹
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
The lateral photovoltaic effect in Fe₃O₄/SiO₂/p-Si structure
- IV.25.08p **N.V. Ilin**, V.V. Tkachev, A.M. Frolov, V.A. Ivanov, A.S. Kuchma, G.S. Kraynova,
V.S. Plotnikov
Far Eastern Federal University, Vladivostok, Russia
Structure and properties features of amorphous iron-based metal foils with different copper contents

- IV.25.09p **V.V. Tkachev**, A.K. Tsesarskaya, A.N.Fedorets, D.A. Polyanskii, G.S. Kraynova, V.S. Plotnikov
Far Eastern Federal University, Vladivostok, Russia
Phase structure features of amorphous iron-based metal foils with different copper contents
- IV.25.10p **V.Yu. Samardak**¹, A.V. Ognev¹, A.Yu. Samardak¹, A. S. Noshahr², F. Nasirpour², A.S. Samardak¹
¹*School of Natural Sciences, Far Eastern Federal University, Vladivostok, Russia*
²*Faculty of Materials Engineering, Sahand University of Technology, Tabriz, Iran*
Temperature dependent magnetic properties and FORC probing of NiMn nanowire arrays
- IV.25.11p A.Yu. Samardak, **A.V. Ognev**, A.G. Kolesnikov, M.E. Stebliy, A.S. Samardak, E.V. Pustovalov, L.A. Chebotkevich
Far Eastern Federal University, Vladivostok, Russia
Ion beam irradiation induced modification of perpendicular magnetic anisotropy and domain structure in layered films
- IV.25.12p A.V. Davydenko¹, **A.G. Kozlov**¹, V.P. Berdnikov¹, G.S. Suslin¹, M.E. Steblii¹, A.V. Ognev¹, L.A. Chebotkevich¹, A.V. Sadovnikov^{2,3}, S.A. Nikitov^{2,3}
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Laboratory «Metamaterials», Saratov State University, Saratov, Russia*
³*Kotel'nikov Institute of Radioengineering and Electronics, RAS, Moscow, Russia*
Control of Dzyaloshinskii-Moriya interaction constant and magnetization reversal processes by number of bilayers in [Co/Pd]_n superlattices
- IV.25.13p **K.S. Ermakov**, M.E. Stebliy, A.G. Kolesnikov, A.V. Ognev, A.S. Samardak, A.V. Davydenko, L.A. Chebotkevich
Far Eastern Federal University, Vladivostok, Russia
Magnetic and magnetoresistance properties of Co nanostrips grown on self-organizing stepped surfaces
- IV.25.14p **V.Yu. Kapitan**^{1,2}, A.V. Perzhu¹, K.V. Nefedev^{1,2}
¹*Department of Computer Systems, School of Natural Sciences, Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Applied Mathematics, Far Eastern Branch, Russian Academy of Science, Vladivostok, Russia*
The numerical study of magnetic multilayer films
- IV.25.15p V.I. Ivanov, **Yu.O. Perktov**, Yu.M. Karpets
Far Eastern State Transport University, Khabarovsk, Russia
Thermoelectric element on the basis of thin sandwich metal-ferroelectric-metal system
- IV.25.16p **K.S. Soldatov**^{1,2}, A.A. Peretyatko¹, K.V. Nefedev^{1,2}, Y. Okabe³
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Applied Mathematics FEB RAS, Vladivostok, Russia*
³*Department of Physics, Tokyo Metropolitan University, Hachioji, Tokyo, Japan*
Diluted antiferromagnetic Ising models on two-dimensional frustrated lattices in a magnetic field

- IV.25.17p **N.A. Djuzhev, A.S. Iurov, M.Y. Chinenkov**
National Research University of Electronic Technology (MIET), Zelenograd, Moscow, Russia
Magnetic field MEMS-sensor: functional characteristics control during the formation of magnetosensitive structures
- IV.25.18p **K. Setojima, S. Ikeda, K. Ogi, N. Oka, Y. Terai**
Department of Computer Science and Electronics, Kyushu Institute of Technology, Iizuka, Japan
Growth of Ru₂Si₃ polycrystalline thin films by solid phase epitaxy in Ru-Si amorphous layers
- V.25.01p **A.V. Syuy¹, A.A. Gabain², N.A. Teplyakova², N.V. Sidorov², M.N. Palatnikov²**
¹*Far Eastern State Transport University, Khabarovsk, Russia*
²*Tananaev Institute of Chemistry and Technology of the Federal Research Centre “Kola Science Centre of the Russian Academy of Sciences», Apatity, Russia*
Kinetic dependencies of the photorefractive effect in lithium niobate crystals
- V.25.02p **K.R. Karimullin^{1,2}, A.I. Arzhanov^{1,2}, A.V. Naumov^{1,2}**
¹*Institute for Spectroscopy RAS, Troitsk, Moscow, Russia*
²*Moscow State Pedagogical University, Moscow, Russia*
Low temperature photon echo spectroscopy of nanocomposites with semiconductor colloidal quantum dots
- V.25.03p **M.M. Mikhailov¹, V.V. Neshchimenko², A.V. Grigorevsky³, A.A. Lovitskiy¹, I.S. Vashchenkov³**
¹*Tomsk State University of Control Systems and Radio-electronics, Tomsk, Russia*
²*Amur State University, Blagoveshchensk, Russia*
³*OAO “Kompozit”, Moscow, Russia*
Radiation stability of the BaSO₄ powders modified by SiO₂ nanoparticles as a pigment for spacecraft thermal control coatings
- V.25.04p **E.V. Mitsai¹, A.A. Kuchmizhak^{1,2}**
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Non-invasive temperature-feedback SERS with all-dielectric resonant nanostructures
- V.25.05p **D.V. Pavlov^{1,2}, A.A. Kuchmizhak^{1,2}**
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Laser-printed self-organized bimetallic nanotextures for multiwavelength surface enhanced photoluminescence
- V.25.06p **R.V. Romashko^{1,2}, M.A. Asalkhanova¹**
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Recording of dynamic holograms in photorefractive crystals CdTe by bichromatic radiation

- V.25.07p **S.A. Syubaev^{1,2}**, A.A. Kuchmizhak^{1,2}, A.P. Porfirev³
¹*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*Samara National Research University, Samara, Russia*
Designing spiral-shape beams to tailor chirality of laser-printed nanoneedles
- V.25.08p V.I. Ivanov, **O.O. Ovseychok**
Far Eastern State Transport University, Khabarovsk, Russia
The nonlinear optical properties of the vanadium dioxide films
- V.25.09p **K.A. Sergeeva¹**, A.A. Sergeev^{1,2}, I.V. Postnova¹, S.S. Voznesenskiy^{1,2}
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*
ZnS:Mn²⁺ quantum dots as efficient photocatalyst for organic dye degradation
- V.25.10p V.I. Ivanov, **A.V. Myagotin**, G.D. Ivanova
Far Eastern State Transport University, Khabarovsk, Russia
Thermal lens method of the diagnostics of liquid nanomaterials
- V.25.11p M.V. Tutov¹, A.Yu. Mironenko², **A.A. Sergeev³**, A.A. Leonov^{1,3}, S.Yu. Bratskaya²
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Chemistry FEB RAS, Vladivostok, Russia*
³*Institute for Automation and Control Processes FEB RAS, Vladivostok, Russia*
Highly sensitive luminescent sensor complexes for selective detection of gold ions in aqueous media
- VI.25.01p S.V. Gnedenkov^{1,2}, L.A. Zemnukhova¹, D.P. Opra¹, **A.A. Sokolov^{1,2}**, A.N. Minaev², S.L. Sinebryukhov¹
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
The correlation between the lignin origin and its electrochemical properties
- VI.25.02p **D.P. Opra¹**, S.V. Gnedenkov^{1,2}, S.L. Sinebryukhov¹, V.G. Kuryavyi¹, A.A. Sokolov^{1,2}, A.N. Minaev^{1,2}
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
Facile synthesis of α -Fe₂O₃/carbon core-shell composite for lithium storage and conversion
- VI.25.03p **I.M. Imshinetsky¹**, S.V. Gnedenkov^{1,2}, S.L. Sinebryukhov¹, D.V. Mashtalyar^{1,2}, A.V. Samokhin³, Y.V. Tsvetkov³
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
³*A.A. Baikov Institute of Metallurgy and Materials Science of RAS, Moscow, Russia*
Incorporation of composite zirconia silica nanoparticles into PEO-coatings on magnesium alloys

- VI.25.04p V.S. Egorkin^{1,2}, N.V. Izotov², I.E. Vyaliy¹, **A.N. Minaev**^{1,2}, S.L. Sinebryukhov¹, S.V. Gnedenkov¹
¹*Institute of Chemistry FEB RAS, Vladivostok, Russia*
²*Far Eastern Federal University, Vladivostok, Russia*
 Influence of electrolyte concentration on the features of formation process and morphology of the PEO-coatings on aluminum alloy
- VI.25.05p **M.S. Vasilyeva**^{1,2}, V.S. Rudnev^{1,2}
¹*Far Eastern Federal University, Vladivostok, Russia*
²*Institute of Chemistry FEB RAS, Vladivostok, Russia*
 Manganese-containing nanostructured oxide coatings on titanium formed by plasma electrolytic oxidation
- VI.25.06p **M.S. Vasilyeva**^{1,2}, V.S. Rudnev^{1,2}, E.S. Zykova¹, K.A. Sergeeva¹, A.V. Nepomnyaschiy³, G.I. Marinina¹
¹*Far Eastern Federal University, Vladivostok, Russia*
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 Ti/TiO₂/Au electrodes prepared by plasma electrolytic oxidation and electron beam evaporation
- VI.25.07p **D.B. Migas**¹, A.B. Filonov¹, V.E. Borisenko¹, N.V. Skorodumova^{2,3}
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 Degenerate-to-nondegenerate transition in semiconducting properties in W₁₈O₄₉ nanofilms
- VI.25.08p **K.V. Nadaraia**^{1,2}, S.V. Gnedenkov^{1,2}, S.L. Sinebryukhov¹, D.V. Mashtalyar^{1,2}
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 Protective coatings formed by PEO and fluorine-containing compound
- VI.25.09p **A.A. Gnidenko**
Institute of Materials Science, Khabarovsk Scientific Center, Russian Academy of Sciences, Khabarovsk, Russia
 Computer simulation of plastic deformation in TiAl alloy in the presence of chromium
- VI.25.10p **M.V. Silibin**¹, D.V. Karpinsky^{1,2}, I.O. Troyanchuk²
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 Structure and magnetic properties of Sm-doped BiFeO₃ ceramics near the morphotropic phase boundary
- VI.25.11p **G.A. Zverev**, V.G. Kuryavyi
Institute of Chemistry FEB RAS, Vladivostok, Russia
 Studying by a complex physical and chemical methods composite metal-fluoropolymer received by a method destruction PTFE in the plasma of pulse high-voltage discharge

- VI.25.12p **Yu.M. Nikolenko**, D.P. Opra, A.K. Tsvetnikov, A.Yu. Ustinov, V.G. Kuryavyi, A.A. Sokolov, V.Yu. Majorov, A.M. Ziatdinov, S.L. Sinebryukhov, S.V. Gnedenkov
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Prospects of application of some activated forms of hydrolytic lignin
- VI.25.13p O.V. Tarakova¹, **K.S. Lukyanenko**¹, O.S. Plotnikova², P.A. Apanasevich², L.L. Afremov¹, P.A. Lukyanov³
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Biomedical contrast drugs based on iron, cobalt and tantalum oxides
- VI.25.14p **M.V. Adigamova**¹, V.S. Rudnev^{1,2}, E.S. Sergienko³, P.V. Kharitonskii^{3,4}, K.G. Gareev⁴, A.A. Kosterov³, I.V. Lukiyanchuk¹, V.P. Morozova¹
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The iron distribution and ferromagnetic areas in PEO coatings

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