

**Asian School-Conference on Physics and
Technology of Nanostructured Materials
(ASCO-NANOMAT 2011)**

PROGRAMME

Institute of Automation and Control Processes FEB RAS

Vladivostok

2011

General information

Plenary talk – 60 minutes including questions

Ordinary talk – 15 minutes including questions

Coffee break – 20 minutes

Lunch – 60 minutes

Organizers

Institution of Russian Academy
of Science

**Institute of Automation and
Control Processes**

Far Eastern Branch of RAS



Far Eastern Federal University



The School-Conference is supported by

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Research**



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General Schedule

Sunday, 21 August

- 12:00 – 20:00 Participants arrival at the airport of Vladivostok, transportation and accommodation
20:00 – 21:00 Participants registration at the “Equator” hotel

Monday, 22 August

- 08:30 – 09:00 Participants registration
09:00 – 09:20 Opening remarks
09:20 – 11:20 Plenary session
11:20 – 11:40 *Coffee break*
11:40 – 13:30 Atomic-scale controlled surfaces/interfaces and nanostructure self organization
13:30 – 14:30 *Lunch*
14:30 – 16:30 Plenary session
16:30 – 16:50 *Coffee break*
16:50 – 18:00 Nanoscaled Si, Ge, A_3B_5 materials: formation technology, structure and characterization
19:00 – 20:00 *Dinner*

Tuesday, 23 August

- 09:00 – 11:00 Plenary session
11:00 – 11:20 *Coffee break*
11:20 – 12:50 Nanocomposites and functional hybrid materials: formation technology, structure and characterization
13:00 – 13:30 Biohybrids and biomaterials: biomimetic materials, biomineralisation, and biosystemson
13:30 – 14:30 *Lunch*
14:30 – 16:30 Plenary session
16:30 – 16:50 *Coffee break*
17:00 – 19:00 Poster session I
20:00 – 21:00 Round table
21:00 – 23:00 Excursion “Night Vladivostok”

Wednesday, 24 August

- 09:00 – 12:30 Excursion to Far Eastern Federal University
13:00 – 20:00 Excursion “Russkiy island”

Thursday, 25 August

09:00 – 11:00	Plenary session
11:00 – 11:20	<i>Coffee break</i>
11:20 – 11:50	Photonic devices, solar cells, nanophotonics and biophotonics
12:00 – 13:30	First principal calculations and molecular modeling of nanostructures
13:30 – 14:30	<i>Lunch</i>
14:30 – 16:30	Plenary session
16:30 – 16:50	<i>Coffee break</i>
17:00 – 19:00	Poster session II
20:00 – 21:00	Round table

Friday, 26 August

09:00 – 11:00	Plenary session
11:00 – 11:20	<i>Coffee break</i>
11:20 – 13:50	Nanosilicides and bulk silicides: theory, synthesis and characterization
13:50 – 14:50	<i>Lunch</i>
14:50 – 16:50	Plenary session
16:50 – 17:10	<i>Coffee break</i>
17:10 – 17:50	Optical materials, photonic crystals and nanometrology
19:00 – 21:00	Conference Dinner

Saturday, 27 August

09:00 – 10:00	Plenary session
10:00 – 11:00	Sponsor session
11:00 – 11:20	<i>Coffee break</i>
11:30 – 13:00	Nanostructured coatings: formation technology and properties
13:00 – 14:00	<i>Lunch</i>
14:00 – 15:00	Formation and properties of ferromagnetic and ferroelectric materials and nanosystems
15:00 – 15:30	<i>Coffee break</i>
15:30 – 16:00	Award ceremony and closing remarks



The program of Asian School-Conference on Physics and Technology of Nanostructured Materials (ASCO-NANOMAT 2011)

SUNDAY, 21 AUGUST

12:00 – 20:00 Participants arrival at the airport of Vladivostok, transportation and accommodation

20:00 – 21:00 Participants registration at the “Equator” hotel

MONDAY, 22 AUGUST

Participants registration

08:30 – 09:00

Opening remarks

09:00 – 09:20

Chairman: *A.A. Saranin*

Plenary session

09:20 – 11:20

PS.22.01i **S. Hasegawa**

University of Tokyo, Tokyo, Japan

Surface nanomaterials - structures and properties

PS.22.02i **A.V. Zotov**

Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia

C₆₀ fullerenes on reconstructed Si(111) surfaces

Coffee break

11:20 – 11:40

**Atomic-scale controlled surfaces/interfaces and
*Kudrawiec***

Chairman: *R.*

nanosstructure self organization

11:40 – 13:30

I.22.01o **A.V. Matetskiy***, D.V. Gruznev, A.V. Zotov, A.A. Saranin

** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*

**Crystalline and electronic structure of C₆₀ monolayers on
Si(111)- α - $\sqrt{3} \times \sqrt{3}$ -Au**

I.22.02o V.I. Emel'yanov, E.V. Golosov, A.A. Ionin, S.I. Kudryashov, A.E. Ligachev,

S.V. Makarov*, D.V. Sinitsin, L.V. Seleznev, Yu.R. Kolobov

** P.N. Lebedev Institute RAS, Moscow 119991, Russia*

Periodical surface structures on silicon induced by IR and UV femtosecond laser pulses

- I.22.03o **S.G. Azatyan***, O.A. Utas, N.V. Denisov, A.V. Zotov, A.A. Saranin
** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
MnSi film on Si(111): its terminations and surface properties
- I.22.05o **J. Pietrucha***, R. Kudrawiec
** Institute of Physics, Wrocław University of Technology, Wybrzeże Wyspiańskiego 27, 50-370 Wrocław, Poland*
Post-processing of contactless electroreflectance signal by using wavelets
- I.22.06o **Mahesh Kumar***, Praveen Kumar, S.M. Shivaprasad
** Surface Physics and Nanostructure Group, National Physical Laboratory, New Delhi 110012, India.*
STM studies of temperature induced reconstructions on Si(111)
- I.22.07o **D.L. Goroshko***, K.N. Galkin, N.G. Galkin, M. Kumar, S.M. Shivaprasad
** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
An influence of Mg adsorption on the Si(5 5 12) substrate conductivity and surface morphology

Lunch

13:30 – 14:30

Chairman: H.

Tatsuoka

Plenary session

14:30 – 16:30

- PS.22.03i **R. Kudrawiec**
Institute of Physics, Wrocław University of Technology, Wybrzeże Wyspiańskiego 27, 50-370 Wrocław, Poland
Application of modulation spectroscopy to study of low dimensional semiconductor heterostructures
- PS.22.04i **S.M. Shivaprasad**
Department of Science & Technology Centre on Biomolecular Electronics, Biomedical Instrumentation Section, Materials Physics & Engineering Division, National Physical Laboratory (Council of Scientific & Industrial Research) Dr K.S.Krishnan Marg, New Delhi-110012, India.
Surface modifications for GaN heteroepitaxy and nanostructure formation

Coffee break

16:30 – 16:50

Nanoscaled Si, Ge, A₃B₅ materials: formation

Chairman: S.

Hasegawa

technology, structure and characterization

16:50 – 18:00

- II.22.08o **D.S. Abramkin***, M.A. Putyato, T.S. Shamirzaev
** A. V. Rzhanov Institute of Semiconductor Physics SB RAS, Pr. Lavrentieva, 13, 630090 Novosibirsk, Russia*

Novel system of GaSb/GaP quantum dots grown on mismatched GaAs substrate

- II.22.09o **A. Okada***, N. Usami, T. Suemasu
** University of Tsukuba, Institute of Applied Physics, Tsukuba, Ibaraki 305-8573, Japan*
Formation and orientation control of Al-induced crystallized Si thin films on conducting layers
- II.22.10o **C.L. Wen***, Q. Yang, H. Hara, M. Suzuki, W. Li, S.M. Cai, H. Tatsuoka
** Faculty of Engineering, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu 4328561, Japan*
Fabrication of magnesium germanide nanorods from Ge nanorod templates

Dinner

19:00 – 20:00

TUESDAY, 23 AUGUST

Chairman: *S.V. Gnedenkov*

Plenary session

09:00 – 11:00

- PS.23.01i **V.E. Borisenko**
Belarusian State University of Information and Radioelectronics, Minsk Belarus
Fabrication and properties of nanostructured refractory metal oxides
- PS.23.02i E.S. Astapova, **E.A. Vanina***
** Amur State University, Blagoveshchensk, Russia*
Synthesis and structure of hi-silica zeolite modified by nanoparticles

Coffee break

11:00 – 11:20

**Nanocomposites and functional hybrid materials:
formation technology, structure and characterization**

Chairman: *A.V. Vakhrushev*

11:20 – 12:50

- VIII.23.01o **C. Ye***, Y. Wang, Y. Ye, Y. C. Jin, Q. X. Wie
** Faculty of Physics and Electronic Technology, Hubei University, Wuhan 430062, P.R. China*
Optical properties of ZnTiO₃ thin films prepared by radio frequency magnetron sputtering
- VIII.23.02o **N.S. Saenko**
Institute of Chemistry of FEB RAS, 159 Prospekt 100-letiya Vladivostoka, Vladivostok 690022, Russia
The X-ray diffraction study of three-dimensional disordered network of nanographites: experiment and theory

- VIII.23.03o **V.S. Egorkin***, L.B. Boinovich, D.V. Mashtalyar,
S.L. Sinebryukhov, S.V. Gnedenkov
** Institute of Chemistry FEB RAS, Prosp. 100-letya Vladivostoka, 159, Vladivostok 690022, Russia*
Characterization of functional hybrid materials by electrochemical impedance spectroscopy
- VIII.23.04o **Toraki Iwamaru***, Hiroshi Katsumata, Shin-ichiro Uekusa, Hiroki Ooyagi,
Takahisa Ishimura, Tetsuo Miyakoshi
** Meiji Univ., Higashimita 1-1-1, Tama-ku, Kawasaki-Si, Kanagawa-Ken, Japan*
Development of microwave absorbing materials prepared from a polymer binder including Japanese lacquer and epoxy resin
- VIII.23.05o **M.I. Dvornik***, A.V. Zaytsev, E.A. Mikhaylenko
** Institute of Materials of Khabarovsk Scientific centre of Far Eastern Branch of the Russian Academy of Sciences, Tikhookeanskaya st. 153, Khabarovsk, 680042, Russia*
Influence of defects on strength and hardness of submicron WC-8Co-1Cr₃C₂ hard alloy
- VIII.23.06o **M.A. Pugachevsky***, N.B. Kozlenkova, K.S. Makarevich
** Institute for Materials Science KhSC FEB RAS, 153 Tikhookeanskaya St., Khabarovsk 680042, Russia*
Formation of TiO₂ nanocoatings by laser ablation

Biohybrids and biomaterials: biomimetic materials, Chairman: *Bansi D Malhotra*
biomineralisation, and biosystemson

13:00 – 13:30

- IX.23.07o **A.A. Chekhlenok***, D.Yu. Proshchenko, S.S. Golik, A.V. Bezverbny
** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
Measurements of fast nonlinear optical properties of biomimetic materials
- IX.23.08o **V.A. Kolchinskiy***, A.Y. Mironenko, S.S. Voznesenskiy,
S.Y. Bratskaya, A.V. Nepomnyaschiy
** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
Investigation of the humidity influence on optical properties of chitosan thin films by spectroscopic ellipsometry

Lunch

13:30 – 14:30

Chairman: *Chung-Yi Lin*

Plenary session

14:30 – 16:30

- PS.23.03i **H. Tatsuoka***, A. Kato, C. Wen, Q. Yang
** Faculty of Engineering, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu, Shizuoka, 432-8561, Japan*

Thermodynamics, growth evolution and structural property of abundant semiconducting materials: novel silicides and oxide nanostructures

PS.23.04i

A.V. Vakhrushev

Institute of Applied Mechanics of UrB RAS, Izhevsk, Russia

Computational multiscale modeling of nanosystems

Coffee break

16:30 – 16:50

Poster session I

17:00 – 19:00

Round table

20:00 – 21:00

Excursion “Night Vladivostok”

21:00 – 23:00

WEDNESDAY, 24 AUGUST

Excursion to Far Eastern Federal University

09:00 – 12:30

Excursion “Russkiy island”

13:00 – 20:00

THURSDAY, 25 AUGUST

Chairman: *S.G. Ovchinnikov*

Plenary session

09:00 – 11:00

PS.25.01i **T. Suemasu***, M. Ajmal Khan, T. Saito, K. Toh, A. Okada, M. Baba, K. Nakamura, Du Weijie, T. Sekiguchi, N. Usami

** University of Tsukuba, Institute of Applied Physics, Tsukuba, Ibaraki 305-8573, Japan*

Operation principles of solar cells - solar radiation, material requirements, photocurrent, photoresponse and device configuration using semiconducting silicide BaSi₂

PS.25.02i

R.M. Bayazitov

Kazan Physical-Technical Institute of the Russian Academy of Sciences, 10/7 Sibirsky trakt, Kazan 420029, Russia

Pulsed synthesis and modification of thin-film semiconductor structures for micro- and optoelectronics

Photonic devices, solar cells, nanophotonics and biophotonics

Chairman: Y. Maeda

11:20 – 11:50

- X.25.01o **M. Ajmal Khan***, Takanobu Saito, Katsuaki Toh, Masakazu Baba,
Kotaro Nakamura, Du Weijie, Takashi Suemasu
* *University of Tsukuba, Institute of Applied Physics, Tsukuba, Ibaraki 305-8573, Japan*
Optimization and control of electron and hole concentrations in Cu-
and Ag-doped BaSi₂ grown by molecular beam epitaxy for the
formation of efficient solar cells
- X.25.02o **O.E. Tereshchenko***, A.G. Paulish, T.S. Shamirzaev, A. M. Gylinsky,
D.V. Dmitriev, A.I. Toropov, X. Li, G. Lampel, Y. Lassailly,
D. Paget, J. Peretti
* *A.V. Rzhanov Institute of Semiconductor Physics of SB RAS, 13 pr. Lavrentieva,
Novosibirsk 630090, Russian Federation*
Optical spin detection in Pd/Fe/GaAs/InGaAs structures

First principal calculations and molecular Sun modeling of nanostructures

Chairman: Shih-Jye

12:00 – 13:30

- IV.25.03o **Yu.V. Luniakov**
Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia
First principle simulations of the minimum energy path of the
Si-defect on the Si(111) $\sqrt{3}\times\sqrt{3}$ -Me surface, Me = Al, Ga, In, Pb
- IV.25.04o **A. A. Gnidenko**
*Institute of Materials of Khabarovsk Scientific centre, FEB RAS,
153 Tikhoookeanskaya st., Khabarovsk 680042, Russia*
First principle simulation of the Co layers behavior on a surface of
hexagonal tungsten carbide
- IV.25.05o **A.S. Fedorov***, Z.I. Popov, A.A. Kuzubov, T.A. Kojevnikova,
S.G. Ovchinnikov
* *Kirensky Institute of Physics, Akademgorodok 50, Krasnoyarsk, 660036, Russia*
First principal investigation of metal-silicon compounds
- IV.25.06o **O.Yu. Severyukhina**
*Institute of Applied Mechanics, Ural Branch of RAS, 34 Baramzinoi St.,
Izhevsk 426067, Russia*
Molecular dynamics simulation of multilayered nanoheterostructures
with variable chemical bonds
- I.22.04o **A. Visikovskiy***, H. Matsumoto, K. Mitsuhashi, T. Nakada,
T. Akita, Y. Kido
* *Ritsumeikan University, Kusatsu, Shiga 525-8577, Japan*
Study of the size dependent electronic d-band behavior of gold
nano-clusters

- V.25.07o **A.G. Maslovskaya***, T.K. Barabash
* *Amur State University, 21 Ignatyevskoe Shosse, Blagoveshchensk 675000, Russia*
Multifractal analysis of electron beam induced polarization switching processes in ferroelectrics

Lunch **13:30 – 14:30**

Chairman: *A.V. Zotov*

Plenary session

14:30 – 16:30

- PS.25.03i **T.S. Shamirzaev**
A.V. Rzhanov Institute of Semiconductor Physics Siberian branch of the RAS, pr. Lavrentieva 13, Novosibirsk 630090, Russia
Indirect band gap heterostructures with band alignment of type I on the basis of III-V semiconductor compounds
- PS.25.04i Yu. N. Kulchin, **O.B. Vitrik***
* *Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
Coherent optics sensors and sensing systems for physical fields and technical objects monitoring and nanotechnology

Coffee break **16:30 – 16:50**

Poster session II

17:00 – 19:00

Round table

20:00 – 21:00

FRIDAY, 26 AUGUST

Chairman: *S.M. Shivaprasad*

Plenary session

09:00 – 11:00

- PS.26.01i Jun Wei Fan, Chung-Yi Lin, **Shih-Jye Sun***
* *Department of Applied Physics, National University of Kaohsiung, Kaohsiung 811, Taiwan, R. O. C.*
Charge transfer induced electrical conduction variation in contaminated carbon nanotubes
- PS.26.02i **K. Král***, M. Menšík
* *Institute of Physics, ASCR, v.v.i., Na Slovance 2, 18221 Prague 8, Czech Republic*
Optical and transport properties of low-dimensional semiconductor nanostructures

Coffee break **11:00 – 11:20**

11:20 – 13:50

- III.26.01o **M. Suzuno***, K. Akutsu, H. Kawakami, T. Yaguchi, K. Akiyama, T. Suemasu
** Institute of Applied Physics, University of Tsukuba, 1-1-1 Tennohdai, Tsukuba, Ibaraki 305-8573, Japan*
MicroChannel epitaxy of β -FeSi₂ on Si(001) substrate
- III.26.02o **Du Weijie***, Takanobu Saito, Muhammad Ajmal Khan, Kotaro Nakamura, Masakazu Baba, Katsuaki Toh, Noritaka Usami, Takashi Suemasu
** Inst. of Appl. Phys., Univ. of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8577 Japan*
High quality undoped BaSi₂ grown on n⁺-BaSi₂/p⁺-Si tunnel junction with reduced Sb diffusion
- III.26.03o **S.A. Lyaschenko***, S.N. Varnakov, S.G. Ovchinnikov, E.P. Berezitskaya, G.A. Alexandrova, O.P. Vaituzin
** Kirensky Institute of Physics of SD RAS, Akademgorodok, Krasnoyarsk, 660036, Russia*
Determination of structural parameters of the Fe-Si-system by spectral ellipsometry method
- III.26.04o **K. S. Makabe***, M. Suzuno, K. Harada, H. Akinaga, T. Suemasu
** Institute of Applied Physics, University of Tsukuba, 1-1-1 Tennoudai, Tsukuba, Ibaraki 305-8573, Japan*
Correlation between resonant tunneling voltages and Fe₃Si quantum well widths in ferromagnetic CaF₂/Fe₃Si /CaF₂ resonant tunneling diode
- III.26.05o **S.N. Varnakov***, S.G. Ovchinnikov, Juan Bartolomé, Javier Rubín, Laura Badía
** Kirensky Institute of Physics of SD RAS, Akademgorodok, Krasnoyarsk, 660036 Russia*
CEMS analysis of nanostructured films (Fe/Si)₃ with Fe⁵⁷ active layer
- III.26.06o **Y. Terai***, K. Noda, K. Yoneda, Y. Maeda, Y. Fujiwara
** Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan*
Photoreflectance and time-resolved photoluminescence studies in ion-beam synthesized β -FeSi₂
- III.26.07o **K. Noda***, Y. Terai, K. Yoneda, N. Miura, K. Katayama, H. Uono, Y. Fujiwara
** Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan*
Growth condition dependence of direct bandgap in β -FeSi₂ epitaxial films grown by molecular beam epitaxy
- III.26.08o **H. Yamada***, H. Katsumata, S. Uekusa
** Science and Technology, Meiji University, A816 1-1-1 Higashimita Tama-ku, Kawasaki-shi, 214-8571, Japan*
Structural and electrical properties of β -FeSi₂ bulk materials for thermoelectric applications
- III.26.09o **S.A. Dotsenko***, K.N. Galkin, E.A. Chusovitin, N.G. Galkin

** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
An influence of Si(111)-2×2-Fe surface reconstruction on the
formation, morphology and optical properties of manganese silicide

Lunch

13:50 – 14:50

Chairman: *R.M. Bayazitov*

Plenary session

14:50 – 16:50

PS.26.03i **S.G. Ovchinnikov***, S.N. Varnakov, A.S. Fedorov,
S.A. Lyaschenko, I.A. Yakovlev
** Kirensky Institute of Physics of SD RAS, Akademgorodok, Krasnoyarsk 660036, Russia*
Characterization and magnetic properties of the iron silicides

PS.26.04i **Bansi D Malhotra**
*Department of Science & Technology Centre on Biomolecular Electronics, Biomedical
Instrumentation Section, Materials Physics & Engineering Division, National Physical
Laboratory (Council of Scientific & Industrial Research) Dr K.S.Krishnan Marg, New
Delhi-110012, India.*
Opportunities in nanostructured metal oxides based biosensors

Coffee break

16:50 – 17:10

Optical materials, photonic crystals

Chairman: *O.B.*

Vitrik

and nanometrology

17:10 – 17:50

VI.26.10o V.V. Atuchin, K.A. Kokh, I.P. Prosvirin, K.N. Romanyuk,
A.S. Kozhukhov, S.V. Makarenko, **O.E. Tereshchenko***
** Laboratory of Molecular Beam Epitaxy of III-V semiconductors, A.V. Rzhanov Institute
of Semiconductor Physics of SB*
Growth and surface stability of Bi₂Se₃ crystals

VI.26.11o **N.P. Kraeva***, O.B. Vitrik, Yu.N. Kulchin
Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia
**Remote optical method for monitoring the parameters of
hydroacoustic vibrations**

Conference Dinner

19:00 – 21:00

SATURDAY, 27 AUGUST

Chairman: *V.E. Borisenko*

Plenary session

09:00 – 10:00

PS.27.01i **Yoshihito Maeda**

Sponsor session

10:00 – 11:00

- SS.27.01.i **A. Vahtel**
Brucker, 47 Lenenskiy avenue, 119334, Moscow, Russia
Optical Fourier transform spectroscopy in nanostructures studies
(0.2 meV - 6 eV)
- SS.27.02.i **V.D. Kopachevskiy**
SOLAR TII, Ltd., 22-218a, Logoisky Trakt, Minsk 220090, Republic of Belarus
Equipment for scientific research and nanotechnology ,
manufactured by the Belorussian-Japanese Joint Venture "SOLAR
TII"

Coffee break

11:00 – 11:20

Nanostructured coatings: formation

Chairman: V.V.

Korobtsov

technology and properties

11:30 – 13:00

- VII.27.01o **D.P. Opra***, S.L. Sinebryukhov, A.K. Tsvetnikov, V.G. Kuryiviyi,
L.A. Matveenko, S.V. Gnedenkov
** Institute of Chemistry of FEB RAS, 159 pr. 100-let Vladivostoku, Vladivostok 690022, Russia*
Fluorocarbon materials produced by the thermo destruction of
polytetrafluoroethylene and possibility of theirs application in Li/
(CF_x)_n batteries
- VII.27.02o **A.S. Gnedenkov***, S.L. Sinebryukhov, D.V. Mashtalyar, S.V. Gnedenkov
** Institute of Chemistry, pr. 100-letiya Vladivostoka 159, Vladivostok 690022, Russia*
Microscale morphology and properties of the PEO-coating surface
- VII.27.03o **K. Ito***, G. H. Lee, K. Harada, M. Ye, Y. Takeda, Y. Saitoh, T. Suemasu,
A. Kimura, H. Akinaga
** Institute of Applied Physics, University of Tsukuba, Tsukuba, Ibaraki 305-8573, Japan*
XMCD measurements for γ'-Fe₄N thin films grown by MBE
- VII.27.04o **A.G. Bagmut***, I.A. Bagmut, V.A. Zhuchkov, I.G. Shipkova
** National Technical University “Kharkov Polytechnical Institute”, 21 Frunze St.,
Kharkov 61002, Ukraine*
Films, prepared with laser ablation of Ni-Pd targets

Lunch

13:00 – 14:00

**Formation and properties of ferromagnetic and
Král
ferroelectric materials and nanosystems**

Chairman: K.

14:00 – 15:00

- V.27.05o **Yu.P. Ivanov***, A.I. Il'in
* *Far Eastern Federal University, 8 Sukhanova St., Vladivostok 690950, Russia*
Growth and magnetism of Co films on Cu(111) buffer layer on Si(111)7x7
- V.27.06o **K. Harada***, K. S. Makabe, H. Akinaga, T. Suemasu
* *University of Tsukuba, Institute of Applied Physics, Tsukuba, Ibaraki 305-8573, Japan*
Realization of an anti-parallel state of magnetization orientation for measuring TMR effects in Fe/Fe₃Si/CaF₂/Fe₃Si MTJ structure
- V.27.07o **A.S. Samardak***, E.V. Sukovatitsina, A.V. Ognev, M.E. Stebliy, V.S. Plotnikov, E.V. Pustovalov, E. Wahlström, L.A. Chebotkevich
* *Laboratory of thin film technologies, FEFU, Vladivostok, 690950, Russia*
MTJ spin-valves based on thin films and nanowires
- V.27.08o **A.E. Klimov***, N.S. Paschin, V.N. Shumsky
* *Institute of Semiconductor Physics of SB RAS, 13 pr. Lavrentieva, Novosibirsk 630090, Russia*
Injection from contacts and asymmetry of photocurrent oscillations in narrow-gap PbSnTe:In ferroelectric

Coffee break

15:00 – 15:30

Award ceremony and closing remarks

15:30 – 16:00

Poster session I

- PO.I.23.01 S.A. Pyachin, **A.A. Burkov***, A.P. Kuz'menko, D.I. Timakov
** Institute of Materials of KhSC FEB RAS, 153 Tikhookeanskaya St., Khabarovsk 680042, Russia*
Nanostructure formation on metal surface by electric discharge
- PO.I.23.02 **M.V. Ivanchenko***, V.A. Gritsenko, A.V. Nepomnyaschiy, A.A. Saranin
** Institute of Automation and Control Processes, 5 Radio St., Vladivostok 690041, Russia*
High-temperature electron stimulated desorption from amorphous alumina films on silicon substrate
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