



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

Vladivostok,

August 20-27, 2013

INVITATION

Dear Colleagues, on behalf of the Organizing Committee, it is a great pleasure for me to invite you to the Second Asian School-Conference on Physics and Technology of Nanostructured Materials (ASCO-NANOMAT 2013). The meeting is organized by the Institute of Automation and Control Processes of Far Eastern Branch of Russian Academy of Sciences, Far Eastern Federal University and Presidium of Far Eastern Branch of Russian Academy of Sciences. The ASCO-NANOMAT 2013 will take place from 20 to 27 August, 2013 at the Conference Hall of Far Eastern Federal University. The Organizing Committee is making every effort to ensure that your participation is being pleasant, scientifically fruitful and giving rise to new ideas, contacts and cooperation. We hope that this meeting, as well as Vladivostok and Russia, will leave you good memory for a long time. Vladivostok is a Russian city which is situated in Far Eastern region, geographically close to Asian countries: China, Taiwan, Japan, Korea and India. Therefore, one of the goals of the School-Conference is to make them closer "scientifically", stimulate contacts and cooperation of scientists from Asian countries and through the Russian scientists bridge them with European scientists because of good relations of Russia with neighboring European countries from the opposite side. The ASCO-NANOMAT 2013 is intended as a forum for scientists and technologists mainly from Asian universities, academic institutes and industry at which they might present their latest findings and develop new synergies on Physics and Technology of Nanostructured Materials and all related subjects. We hope that the ASCO-NANOMAT 2013 is promoting new scientific contacts and meetings between noted and young participants in future. We invite contributions on all aspects of nanostructured materials for modern and future industry.

On behalf of the Organizing Committee,

Professor Nikolay GALKIN
Chair of ASCO-NANOMAT 2013

TECHNICAL AREAS

1. Atomic-scale controlled surfaces/interfaces and nanostructure self-organization
2. Semiconducting nanoheterostructures: growth, structure and characterization
3. Nanosilicides and bulk silicides: synthesis and characterization
4. Carbon based nanomaterials: technology, structure and characterization
5. First principal calculations and molecular modeling of nanostructures
6. Formation and properties of ferromagnetic, thermoelectric and ferroelectric materials and nanosystems
7. Optical materials, nonlinear optical mediums and laser metrology
8. Nanostructured coatings: formation technology and properties
9. Nanocomposites and functional hybrid materials: formation technology, structure and characterization
10. Biohybrids and biomaterials: biomimetic materials, biomineralisation, and biosystems
11. Nanodevices and sensors for photonics, optoelectronics and electromechanics

INVITED SPEAKERS AND LECTURE'S THEMES (tentative)

- V.G. Dubrovskii "III-V nanowires enabling monolithic integration of optical nanostructures with silicon".
- D.B. Migas "Structural, electronic and optical properties of TiO₂ nanowires and nanotubes".
- H. Tatsuoka "Syntheses and structural control of silicide, oxide and metallic nanostructured materials".
- V.G. Zavodinskii "Quantum-mechanical modeling without Schrodinger and Kona-Schem equations".
- M. Imai "Basic properties of alkaline-earth disilicides and related materials".
- S.A. Gavrilov "Technology of nanocrystalline oxides for energy harvesting devices".
- G. Shao "Application of multi-scale modeling to cost-effective development of novel materials".
- S.M. Shivaprasad "Growth and structure of GaN epitaxial layers on SiC/Si(111) substrates".
- T. Suemasu "Operation principles of solar cells - solar radiation, material requirements, photocurrent, photoresponse, and device configuration".
- A.V. Vakhrushev "Molecular modeling of semiconductor nanostructures".
- E.A. Vinogradov "Thermostimulated electromagnetic fields of nanostructures".
- Gao Yan "Theoretical modeling of defect effect on FeSi₂ and device design".
- K.-W. Lin "Correlating Uncompensated Antiferor and Exchange coupling interaction in interface ion-bean Co₉₀Fe₁₀/CoFe-Oxide Bilayers".
- S. Hasegawa "Surface Nanomaterials - Structures and Properties".
- R. Kudrawiec "Application of modulation spectroscopy to study of low dimensional semiconductor structures".
- Z. Remesh "Photoelectrical and luminescence properties on nanocrystalline silicon layers on silicon substrates formed by plasma enhanced CVD".
- A.V. Dvurechenskii "Growth and properties of Si-Ge nanosystems with zero-dimensional dots for optoelectronics applications".
- V.I. Ryzhii "Graphene-based infrared and terahertz detectors: Concepts, features, and comparison".

GENERAL INFORMATION

DATE AND VENUE

The Second Asian School-Conference on Physics and Technology of Nanostructured Materials (ASCO-NANOMAT) will be held from 20 to 27 August, 2013 at the Conference Hall of Far Eastern Federal University (FEFU) in Vladivostok. The Conference Hall of FEFU is situated on the Russian Island near the downtown of Vladivostok (<http://wikimapia.org/#lat=43.0276424&lon=131.8899206&z=16&l=0&m=b>). Vladivostok is a port city of about 650 000 inhabitants being on the Far East Coast of Russia. It was founded in 1860. This is the largest city in the Russian Far Eastern region. There are 4 universities and Far East Department of the Russian Academy of Sciences that includes 14 academic institutes. The city is situated on hills of Murav'ev-Amurski Peninsula and surrounded by two bays. There is magnificent countryside, coastline and islands.

CLIMATE

The end of August is the end of summer in Vladivostok. As usual, it is sunny, but rain showers are possible. Average daytime temperature is around 26°C, but on sunny days it exceeds 28°C. The nights are usually warm. The temperature of water in the bays is about 22-24 °C.

ORGANIZERS



Institute of Automation and Control Processes of Far Eastern Branch of Russian Academy of Sciences (IACP FEB RAS)



Far Eastern Federal University (FEFU)



Presidium of Far Eastern Branch of Russian Academy of Sciences

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SUBMISSION OF ABSTRACT extended deadline

The two-page camera-ready abstract must be prepared in English in A4-format and submitted to the Local Organizing Committee by e-mail (asco-nanomat@iacp.dvo.ru) from October, 1, 2012 to ~~January 31, 2013~~ **February 18, 2013** as a MS Word file of less than 15 Mb. You can download the abstract template here:

http://www.ntc.dvo.ru/conf/nanomat2013/ASCO-NANOMAT_article_template.dot

The first page must include the title of the paper, author(s), affiliation(s), address, telephone number, fax number, e-mail address, and article text. Two-byte characters such as Japanese, Chinese, Korean, etc. fonts cannot be used for either figures or texts. The paper should report original work, including specific results. Papers to be presented at the School-Conference will be selected by International Program Committee. Authors of accepted papers will be notified by e-mail by March 31, 2013 and requested to give oral (15 minutes) or poster presentation (100×150 cm).

EXTENDED ABSTRACTS AND PUBLICATION

Accepted papers will be published, without opportunity for further revision, in the extended abstracts in the form of book of Proceedings, which will be distributed to the School-Conference participants during school's work. The best papers selected by Publishing Committee will be published in Physics Procedia journal (Elsevier) after the finishing of the School-conference.

PARTICIPANT FEE

The fee has been established as follows:

before August 20

Regular Participant	350 USD
PhD Student*	250 USD
Accompanying person	180 USD

** Students should present a letter from their supervisor confirming their student status.*

The registration fee covers meeting at the airport and transportation to and from the Symposium site, welcome reception, admission to all technical sessions and coffee refreshments, excursions listed in the Symposium Programme and also a set of Symposium materials including a copy of the Proceedings and a CD.

Registration fee of an accompanying person includes meeting and transportation, welcome reception, and excursions listed in the Symposium Programme.

The registration fee does not cover accommodation and meals.

LANGUAGE

The official language of the Symposium is English. No simultaneous translation services will be provided.

ACCOMMODATION

Foreign and non-Vladivostok participants will be accommodated in hotel and guest houses of Far Eastern Federal University on the Russky island during August 20 – 27.

TRANSPORTATION

The Organizing Committee will arrange the following free of charge services for participants:

- Airport transfers upon arrival and departure.
- Transfer of the participants to the places of the excursions

IMPORTANT DATES *NEW*

Abstract submission - **October 1, 2012 - ~~January 31, 2013~~ February 18, 2013**

Acceptance notification- **March 31, 2013**

Program of Conference - **April 11, 2013**

Paper submission : **August 21, 2013**

School-Conference : **August, 20-27, 2013**

SCIENTIFIC PROGRAMME

ORAL SESSIONS

	date	time
Wednesday	August 21	9:00 - 16:00
Thursday	August 22	9:00 - 18:00
Friday	August 23	9:00 - 16:00
Saturday	August 24	9:00 - 18:00
Monday	August 26	9:00 - 15:00

The time allotted for an oral presentation is 45 and 15 minutes for invited and regular talks, respectively, including 10 and 3 minutes, correspondingly, for discussion. PC projector will be available. Speakers should provide their presentation file on flash drives or CD/DVD to a representative of the Organizing Committee before the beginning of the corresponding oral session in order to transfer files to the host computer (due to technical reasons presentations can't be run from participant's own notebooks).

POSTER SESSIONS

	date	time
Wednesday	August 21	16:00 - 18:00
Friday	August 23	16:00 - 18:00

The size of a poster board is 100×150 cm. Each board will be marked with a number of the corresponding paper. The author is supposed to be at the board during the relevant session. The posters should be stucked early in the morning of the presentation day and removed after closing of the session.

AWARDS

The ASCO-NANOMAT Young Scientist Awards for 1, 2 and 3 places will be granted at the Award Ceremony on Monday afternoon, August 26, 2013. The awards comprise the diploma and money prizes.

SOCIAL PROGRAMME

WELCOME PARTY

Participants and accompanying persons are cordially invited to the Welcome Party in the Cafe of the Far Eastern Federal University on Wednesday evening, August 21 at 19:00.

SYMPOSIUM DINNER

The Symposium Dinner will be held on Saturday, August 24, at 19:30 at the Cafe of the Far Eastern Federal University. The charge of 50 USD for the Symposium Dinner is to be paid by Tuesday afternoon, August 22 at the registration desk.

EXCURSIONS

Two free of charge excursions will be arranged for participants and accompanying persons.

Excursion 1: "Night Vladivostok" Tuesday, August 22, at 21:30.

Excursion 2: "Voroshilov battery and beaches of Russky island" Sunday, August, 25, at 9:00