

# 3<sup>rd</sup> International School on Surface Science



## "Technologies and Measurements on Atomic Scale"

23 – 29 September 2013, Khosta (Sochi), Russia

### Invited talks

**1. Alexei I. Kononov**

(Saint-Petersburg State University, Russia)

**Fluorescent metal nanodots as a special class of nanoobjects.**

**2. L.V. Yashina**

(Lomonosov Moscow State University, Russia)

**Chemistry of discharge and recharge of Li-air battery: operando XPS studies.**

**3. Boris V. Andryushechkin**

(A.M. Prokhorov General Physics Institute, RAS, Moscow, Russia)

**Surface chlorides on metals.**

**4. O.E. Tereshchenko**<sup>1,2</sup>, A.S. Jaroshevich<sup>1</sup>, D.V. Dmitriev<sup>1</sup>, A.I. Toropov<sup>1</sup>, X. Li<sup>3</sup>, Y. Lassailly<sup>3</sup>, D. Paget<sup>3</sup>, J. Peretti<sup>3</sup> (<sup>1</sup>Institute of Semiconductor Physics, Novosibirsk, Russia; <sup>2</sup>Novosibirsk State University, Novosibirsk, Russia; <sup>3</sup>Laboratoire de Physique de la Matière Condensée, Ecole Polytechnique, Palaiseau, France)

**Spin filter effect in ferromagnetic/semiconductor structures: towards an optical spin-detection with spatial resolution.**

**5. D.Yu. Usachov**<sup>1</sup>, A.V. Fedorov<sup>1</sup>, O.Yu. Vilkov<sup>1</sup>, D.V. Vyalikh<sup>2</sup>

(<sup>1</sup>Faculty of Physics, St. Petersburg State University, Russia; <sup>2</sup>Institute of Solid State Physics, Dresden University of Technology, Germany)

**Interface architecture and electronic structure of novel graphene-based systems.**

**6. A.G. Rybkin**

(St. Petersburg State University, Russia)

**Rashba Splitting in Monolayers of Au, Cu on a W(110) Substrate.**

### Oral students' session

**1. A.B. Odobescu**, S.V. Zaitsev-Zotov

(Kotel'nikov IRE RAS, Moscow, Russia)

**Temperature-dependence of the surface conductance of the Si(111)7×7 measured by four-point probe technique.**

**2. Alexander I. Chernov**, Pavel V. Fedotov, Alexandr V. Talyzin<sup>2</sup>, Inma L. Suarez<sup>1</sup>, Ilya V. Anoshkin<sup>3</sup>, Albert G. Nasibulin<sup>3</sup>, Esko I. Kauppinen<sup>3</sup>, Elena D. Obraztsova<sup>1</sup>

(<sup>1</sup>A.M. Prokhorov General Physics Institute, RAS, Moscow, Russia; <sup>2</sup>Department of Physics, Umeå University, Sweden; <sup>3</sup>Department of Applied Physics, Aalto University School of Science, Espoo, Finland)

**Photoluminescence and Raman spectroscopy of narrow graphene nanoribbons.**

## Poster students' session

**P1. P.V. Fedotov**, A.I. Chernov, E.D. Obraztsova

(*A.M. Prokhorov General Physics Institute, RAS, Moscow, Russia*)

**Separation of Single-Wall Carbon Nanotubes by Polymer-Modified Aqueous Phases.**

**P2. S.N. Bokova-Sirosh**<sup>1</sup>, V.L. Kuznetsov<sup>2,3</sup>, A.V. Ishchenko<sup>2</sup>, S.I. Moseenkov<sup>2</sup>, M.A. Shuvaeva<sup>2,3</sup>, and E.D. Obraztsova<sup>1</sup>

(<sup>1</sup>*A.M. Prokhorov General Physics Institute RAS, Moscow, Russia*; <sup>2</sup>*Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*; <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*)

**DIMENSIONAL AND THERMO-INDUCED EFFECTS IN RAMAN SPECTRA OF MULTI-WALL CARBON NANOTUBES.**

**P3. K.A. Bokai**, A.V. Erofeevskaya, A.S. Vopilov, D.Yu. Usachov

(*Faculty of Physics, St. Petersburg State University, Russia*)

**Synthesis and electronic structure of graphene heavily doped with boron.**

**P4. S.L. Kovalenko**, V.Yu. Yurov, B.V. Andryushechkin, K.N. Eltsov

(*A.M. Prokhorov General Physics Institute, RAS, Moscow, Russia*)

**Atomic structure of gold intercalated graphene on Ni(111): STM study.**

**P5. E.V. Zhizhin**

(*Saint-Petersburg State University, Russia*)

**Modification of spin structure of  $\pi$  - states of graphene under contact with heavy metals (Bi, Au, Pt) and their joint intercalation.**

**P6. I. Klimovskikh**

(*Saint-Petersburg State University, Russia*)

**Electronic and spin structure of topological and trivial surface states of thermoeffective topological insulator  $\text{Bi}_2\text{Te}_{2.4}\text{Se}_{0.6}$ .**

**P7. R. Werner**<sup>1</sup>, A.Yu. Aladyshkin<sup>2,3</sup>, I.M. Nefedov<sup>2,3</sup>, **A. Putilov**<sup>2,3</sup>, M. Kemmler<sup>1</sup>, D. Bothner<sup>1</sup>, A. Loerincz<sup>4</sup>, K. Ilin<sup>4</sup>, M. Siegel<sup>4</sup>, R. Kleiner<sup>1</sup> and D. Koelle<sup>1</sup>

(<sup>1</sup>*Physikalisches Institut—Experimentalphysik II and Center for Collective Quantum Phenomena in LISA+, Universität Tübingen, Germany*; <sup>2</sup>*Institute for Physics of Microstructures, RAS, Nizhny Novgorod, Russia*; <sup>3</sup>*Lobachevsky National Research University of Nizhni Novgorod, Russia*; <sup>4</sup>*Institut für Mikro- und Nanoelektronische Systeme, Karlsruher Institut für Technologie, Germany*)

**Edge superconductivity in Nb thin film microbridges.**

**P8. V. Zheltov**, B. Andryushechkin, G. Zhidomirov, K. Eltsov

(*A.M. Prokhorov General Physics Institute, RAS, Moscow, Russia*)

**A van der Waals corrected DFT study of the chlorine adsorption on Au(111) and Ag(111).**

**P9. Tatiana V. Pavlova**, George M. Zhidomirov, Konstantin N. Eltsov

(*A.M. Prokhorov General Physics Institute, RAS, Moscow, Russia*)

**Dissociative adsorption and thermal desorption of chlorine on Cu(111) surface.**