# Detailed program of SPM-2018

**August 26, Sunday**

## Youth Conference

**Application of Scanning Probe Microscopy in Scientific Research**

<table>
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<tr>
<th>Time</th>
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| 10.00-12.00 | *Visit to Ural Center for Shared Use “Modern Nanotechnologies”*  
*UrFU, Kuibysheva str. 48, 2nd floor* |
| 13.00 | **L1. Victor Bykov, NT-MDT Spectrum Instruments, Moscow**  
Scanning probe methods for studying surface structures – history of development and recent possibilities |
| 13.40 | **L2. Andrei Kholkin, University of Aveiro, Portugal**  
Principles and applications of Piezoresponse Force Microscopy |
| 14.20 | **L3. Alexander Ankudinov, A.F. Ioffe Physical-Technical Institute, Saint Petersburg**  
Influence of deformation distribution in console-probe-sample system on AFM measurements |
| 15.00 | *Tea break*                                                                                  |
| 15.20 | **L4. Denis Alikin, Ural Federal University, Ekaterinburg**  
Nanoscale resolved solid-state electrochemistry: the scanning probe microscopy approach |
| 16.00 | **L5. Lev Fomin, IPMT RAS, Chernogolovka**  
Application of magnetic force microscopy in studying of the epitaxial ferromagnetic structures |
| 12.00-18.30 | *Registration, Kuibysheva str. 48, 7th floor*                                               |
| 19.00-21.00 | *Welcome party, Panorama hotel, Kuibysheva str. 44, 11th floor*                           |
## August 27, Monday

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08.30</td>
<td><strong>Registration, Kuibysheva str. 48, 7th floor</strong></td>
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<tr>
<td>09.00</td>
<td><strong>Opening, Kuibysheva str. 48, 7th floor</strong></td>
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<tr>
<td>09.30</td>
<td><strong>Session 1. SPM in material science I</strong> (chair Alexander Saranin)**</td>
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<tr>
<td>10.00</td>
<td><strong>I01. Victor Bykov, NT-MDT Spectrum Instruments, Moscow</strong> 3D visualizations of solid surfaces properties by Scanning Probe Microscopy and spectroscopy technics</td>
</tr>
<tr>
<td>10.30</td>
<td><strong>I02. Viktor Mironov, IPM RAS, Nizhny Novgorod</strong> Magnetic resonance force microscopy</td>
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<tr>
<td>10.30</td>
<td><strong>I03. Vladimir Shur, Ural Federal University, Ekaterinburg</strong> Regular and irregular shaped isolated domains in uniaxial ferroelectrics</td>
</tr>
<tr>
<td>11.00</td>
<td><strong>Tea break</strong></td>
</tr>
<tr>
<td>11.15</td>
<td><strong>I04. Gennady Mikhailov, IMT RAS, Chernogolovka</strong> Magnetic force microscopy of epitaxial Fe₂CoAl and Co₂FeAl Heusler alloy films and microstructures</td>
</tr>
<tr>
<td>11.45</td>
<td><strong>O01. Andrei Shubin, Ostec ArtTool, Moscow</strong> Bulk microstructure of nanocomposites studied by the impulse acoustic microscopy technique</td>
</tr>
<tr>
<td>12.00</td>
<td><strong>O02. Vera Neudachina, Intertech Corporation, Moscow</strong> Novel developments in SPM instrumentation: Interferometer displacement sensor and high-resolution video-rate AFM</td>
</tr>
<tr>
<td>12.15</td>
<td><strong>O03. Mikhail Trusov, IMC Group, Moscow</strong> Scanning probe microscopy in ultra-high vacuum. Techniques and capabilities by Scienta Omicron</td>
</tr>
</tbody>
</table>
| 12.30 | **Group photo and lunch**  
*Panorama hotel, Kuibysheva str. 44*                                                    |
| 14.00 | **Session 2. SPM in material science II** (chair Vladimir Shur)**                         |
| 14.00 | **I05. Andrei Kholkin, University of Aveiro, Portugal** Magnetoelectric effect in composite structures based on piezoelectric single crystals |
| 14.30 | **I06. Alexander Ankudinov, Ioffe Institute, Saint Petersburg** Stick and slip states in the probe-sample force interaction and informative nanomechanical measurements using AFM |
15.00  I07. **Eudes Araujo**, *São Paulo State University, Brazil*  
Electrical properties and polarization switching in polycrystalline BiFeO₃ thin films

15.30  O04. **Vyacheslav Polyakov**, *NT-MDT Spectrum Instruments, Moscow*  
Atomic force microscopy integrated with laser spectroscopy

15.45  O05. **Sergey Butiaikin**, *Promenergolab, Moscow*  
Park Systems Atomic Force Microscopes (AFM)

16.00  O06. **Lev Fomin**, *IMT RAS, Chernogolovka*  
Probe microscopy of epitaxial structures made of metals: electron transport and exchange bias versus surface morphology

16.15  O07. **Talgat Sharipov**, *Bashkir State University, Ufa*  
The study of supramolecular structure of asphaltenes by atomic force microscopy

16.30  O08. **Denis Sokolov**, *Omsk Scientific Center, Omsk*  
Electrical properties of irradiated individual multi-walled carbon nanotubes at gases adsorption

16.45  *Tea break*

17.00-18.15  Session 3. Short oral talks of young scientists  
(chair **Alexey Pugachev**)

18.15 - 20.00  Poster session, Kuibysheva str. 48, 5th floor

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**August 28, Tuesday**

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<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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| 09.00 | I08. **Rinat Mamin**, *Zavoisky Physical-Technical Institute, Kazan*  
Quasi-two-dimensional electron gas at the interface of two dielectrics: ferroelectric/antiferromagnet |
| 09.30 | I09. **Igor Raevski**, *Southern Federal University, Rostov-on-Don*  
Magnetic phase transitions in solid solutions of Fe-containing perovskite multiferroics |
| 10.00 | I10. **Xiaoyong Wei**, *Xi’an Jiaotong University, China*  
Domain control and the enhanced electro-optical properties in relaxor single crystal PMN-PT |
| 10.30 | O09. **Zhenrong Li**, *Xi’an Jiaotong University, China*  
Growth and domain structure control of PIN-PMN-PT Single Crystals                          |
<p>| 10.45 | <em>Tea break</em>                                                                                      |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Title</th>
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| 11.00 | I11.     | Andrey Zotov  | IACP FEB RAS, Vladivostok  
Self-assembled quasi-1D and 2D nanostructure of fullerenes on silicon |
| 11.30 | I12.     | Manika Khanuja | Jamia Millia Islamia, India  
Advanced nanostructured materials for photocatalytic water purification |
| 12.00 | O10.    | Alexander Saranin  | IACP FEB RAS, Vladivostok  
(Tl, Au)/Si(111) and (Tl, Au)/Si(100) 2D compounds: Atomic and electronic structure and transport properties |
| 12.15 | O11.    | Fedor Dalidchik  | Semenov Institute of Chem. Phys. RAS, Moscow  
Tunnel electron-vibrational spectroscopy of adsorbed complexes on the surface of ultra-small metal nanoparticles |
| 12.30 | O12.    | Alexander Chaika  | ISSP RAS, Chernogolovka  
Atomic and electronic structure of nanostructured few-layer graphene with self-aligned boundaries synthesized on SiC/Si(001) wafers |
| 12.45 |         | Lunch                        | Panorama hotel, Kuibysheva str. 44 |
|       | Session  |         | Session 6. Biocompatible & organic materials  
(chair Andrei Kholkin) |
| 13.45 | I13.    | Igor Yaminsky  | Lomonosov Moscow State University, Moscow  
Advances of scanning probe microscopy in biomedical applications |
| 14.15 | I14.    | Syed Tofail  | University of Limerick, Ireland  
Biological pyroelectrics for energy harvesting and infrared detection |
| 14.45 | I15.    | Joanna Bauer  | Wrocław Univ. of Science and Technology, Poland  
Silver modified nanomaterials for enhanced Photodynamic Therapy (PDT) |
| 15.15 | O13.    | Damir Urusov  | Merck LLC, Moscow, Russia  
Benefits of imaging flow cytometry for the analysis of nanoparticles in the biological environment |
| 15.30 | O14.    | Larisa Privalova  | Medical Research Center for Prophylaxis and Health Protection in Industrial Workers, Ekaterinburg  
Main results obtained in a series of animal experiments for the assessment of the organism’s responses to metallic nanoparticles (self-review) |
| 15.45 | O15.    | Daria Vasileva  | Ural Federal University, Ekaterinburg  
Polymorphic phase transitions and ferroelectric properties in β-glycine crystals and micro islands |
| 16.00 | O16.    | Aysylu Safiullina  | Kazan Federal University, Kazan  
The study of organogel formation with cyclo(leucyl-leucine) by the AFM method |
August 29, Wednesday

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 7. SPM in material science III (chair Alexander Ankudinov)</th>
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<tbody>
<tr>
<td>09.00</td>
<td>O16. Alexander Volodin, University Leuven, Belgium</td>
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<tr>
<td></td>
<td>Magnetic resonance force microscopy of individual domain wall</td>
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<tr>
<td>09.30</td>
<td>O18. Mikhail Dunaevskiy, Ioffe Institute, Saint Petersburg</td>
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<td>Measurement of the bending of thin inclined nanowires as a method for</td>
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<td>determining elastic modulus</td>
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<td>09.45</td>
<td>O19. Evgeny Skorokhodov, IPM RAS, Nizhny Novgorod</td>
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<td>The effect of the probe magnetic moment orientation of magnetic resonance</td>
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<td>force microscope on the spectra of spin wave resonances</td>
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<td>10.00</td>
<td>O20. Yevgeny Golubev, Institute of Geology Komi UB RAS, Syktyvkar</td>
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<td>Structure of natural impact glasses on AFM data</td>
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<tr>
<td>10.15</td>
<td>O21. Tatyana Sazanova, Nizhny Novgorod State Technical University,</td>
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<tr>
<td></td>
<td>Nizhny Novgorod</td>
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<td>AFM-based approach to establish structure/property type correlations for polymeric functional materials</td>
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<tr>
<td>10.30</td>
<td>O22. Natalia Andreeva, Saint Petersburg Electrotechnical University</td>
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<td>&quot;LETI&quot;, Saint Petersburg</td>
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<td>Filamentary charge carrier injection in heterogeneous oxide systems</td>
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<td>10.45</td>
<td>O23. Anastasia Chouprik, MIPT, Dolgoprudny</td>
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<td>Electric field-induced phase transformations in ferroelectric polycrystalline Hf$<em>{0.5}$Zr$</em>{0.5}$O$_2$ thin films</td>
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<td>11.00</td>
<td>Tea break</td>
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<tr>
<th>Time</th>
<th>Session 8. Ferroelectrics, piezoelectrics, and ionic conductors II (chair Igor Raevski)</th>
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<tr>
<td>11.15</td>
<td>O24. Igor Pronin, Ioffe Institute, Saint Petersburg</td>
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<tr>
<td></td>
<td>Compositional variation of thin PZT films near morphotropic phase boundary: experiment and simulation</td>
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<tr>
<td>Time</td>
<td>Speaker</td>
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<tr>
<td>11.30</td>
<td>O25. Alexey Pugachev, IAE SB RAS, Novosibirsk</td>
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<tr>
<td>11.45</td>
<td>O26. Andrei Akhmatkhanov, Ural Federal University, Ekaterinburg</td>
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<tr>
<td>12.00</td>
<td>O27. Tae Kwon Song, Changwon National University, Korea</td>
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<tr>
<td>12.15</td>
<td>O28. Svetlana Raevskaya, Southern Federal University, Rostov-on-Don</td>
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<tr>
<td>12.30</td>
<td>O29. Alexander Esin, Ural Federal University, Ekaterinburg</td>
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<tr>
<td>12.45</td>
<td>Lunch</td>
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Session 9. Probe lithography and domain engineering  
(Chair: Igor Yaminsky)

<table>
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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution</th>
<th>Topic</th>
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<tr>
<td>14.00</td>
<td>I17. Timur Khanipov, Zavoisky Physical-Technical Institute, Kazan</td>
<td>MFM investigations of particles with configurational anisotropy fabricated by scanning probe and microsphere lithography</td>
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<tr>
<td>14.30</td>
<td>O30. Anton Turygin, Ural Federal University, Ekaterinburg</td>
<td>Investigation of self-organization effects during local switching on non-polar cuts of lithium niobate crystals</td>
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<tr>
<td>14.45</td>
<td>O31. Alexey Zhukov, Institute of Solid State Physics, Chernogolovka</td>
<td>Peculiarities of the applications of the two-probe AFM manipulator</td>
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<tr>
<td>15.00</td>
<td>O32. Vadim Avilov, Southern Federal University, Taganrog</td>
<td>Formation and study of the RAM memory elements by local anodic oxidation method</td>
<td></td>
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<tr>
<td>15.15</td>
<td>O33. Dmitry Chezganov, Ural Federal University, Ekaterinburg</td>
<td>Domain patterning by focused electron beam in wide temperature range in lithium niobate crystal with surface dielectric layer</td>
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Session 10. Theory, modeling, and data processing  
(Chair: Igor Pronin)

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<th>Topic</th>
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<tr>
<td>15.30</td>
<td>I18. Vladimir Bystrov, IMPB RAS, Pushchino</td>
<td>Ferroelectric nanocomposites based on polymer ferroelectrics and graphene/oxide graphene: Computer modeling and SPFM experiments</td>
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<td>Time</td>
<td>Speaker/Institution</td>
<td>Presentation/Activity</td>
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<tr>
<td>16.00</td>
<td>O34. <strong>Andrey Nasedkin</strong>, <em>Southern Federal University, Rostov-on-Don</em></td>
<td>Numerical modelling of two-phase piezocomposites with interface mechanical anisotropic effects</td>
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<tr>
<td>16.15</td>
<td>O35. <strong>Valentina Pukhova</strong>, <em>Saint Petersburg Electrotechnical University &quot;LETI&quot;, Saint Petersburg</em></td>
<td>Adaptive time-frequency analysis of signals in AFM</td>
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<tr>
<td>16.45</td>
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<td>Closing</td>
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<td>17.00-19.00</td>
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<td><em>Visit to Ural Center for Shared Use “Modern Nanotechnologies” UrFU, Kuibysheva str. 48, 2nd floor</em></td>
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Short oral talks of young scientists, August 27

SO1/P1. Abramov Alexander (Ural Federal University, Ekaterinburg)
Local study of the domain wall mobility in multiaxial ferroelectric crystals and ceramics under the action of electric field and mechanical loading

SO2/P15. Begletsova Nadejda (Saratov State University, Saratov)
Study of the surface microrelief of copper nanoparticles by the method of scanning probe microscopy

SO3/P17. Borodin Bogdan (Ioffe Institute, Saint Petersburg)
Local anodic oxidation of graphene layers on SiC

SO4/P20. Chuvakova Maria (Ural Federal University, Ekaterinburg)
Self-organized growth of dendrite domains in lithium niobate and lithium tantalate single crystals

SO5/P25. Gavrikov Maksim (Saratov State University, Saratov)
Analysis of the conduction mechanism through InSb quantum dot by tunnel CVC method

SO6/P36. Kiryakov Arseny (Ural Federal University, Ekaterinburg)
Microstructure and luminescent properties of transparent MgAl$_2$O$_4$ nanoceramics

SO7/P37. Kiseleva Elina (Saratov State University, Saratov)
Change in the surface density of immobilized enzyme molecules due to photoelectron processes in a silicon substrate

SO8/P41. Komshin Aleksandr (Bauman Moscow State Technical University, Moscow)
Investigation of geometric characteristics of the titanium alloy surface subjected to magnetic-impulse processing by means of SPM

SO9/P43. Kosareva Ekaterina (Semenov Institute of Chemical Physics RAS, Moscow)
Application of atomic force microscopy to studying of aluminum nanopowder

SO10/P47. Kunkel Tatyana (Ioffe Institute, Saint Petersburg)
Study of charge state of polarization domain walls in organic ferroelectric 2-methylbenzimidazole crystals

SO11/P53. Lobov Ivan (Omsk Scientific Center of the Siberian Branch of the RAS, Omsk)
Work function tuning of the individual polyaniline/carbon nanotube nanostructures

SO12/P54. Lukyanenko Anna (Kirensky Institute of Physics, Krasnoyarsk)
Fabrication process for producing silicon nanowire field effect transistors

SO13/P63. Morozova Anna (Kazan Federal University, Kazan)
Influence of quantity of amino-acid residues in the oligopeptides based on glycine on their self-organization in film
SO14/P74. **Pryakhina Victoria** (Ural Federal University, Ekaterinburg)
As-grown domain structures in lithium tantalate with inhomogeneous stoichiometry deviation

SO15/P88. **Slautin Boris** (Ural Federal University, Ekaterinburg)
Local study of lithiation and degradation paths in LiMn$_2$O$_4$ battery cathodes via scanning probe and confocal Raman microscopies

SO16/P89. **Smolyarova Tatyana** (Kirensky Institute of Physics, Krasnoyarsk)
Characterization of Au/Fe$_3$Si nanocrystals obtained by MBE

SO17/P93. **Syritskii Antoni** (Bauman Moscow State Technical University, Moscow)
Scanning probe microscopy application in a research of opal nanostructures

SO18/P98. **Ushakov Andrey** (Ural Federal University, Ekaterinburg)
In situ study of the domain kinetics in [001]-poled PMN-39PT single crystal during polarization reversal

SO19/P103. **Vlasov Evgeny** (Ural Federal University, Ekaterinburg)
Domain creation by electron and ion beams in lithium tantalate crystals
Poster session, August 27

P1. **Abramov Alexander** (Ural Federal University, Ekaterinburg)
Local study of the domain wall mobility in multiaxial ferroelectric crystals and ceramics under the action of electric field and mechanical loading

P2. **Adishchev Sergey** (Institute of Automation and Electrometry RAS, Novosibirsk)
Investigation of aqueous suspensions of multilayer vesicles of phospholipids by Mandelstam-Brillouin spectroscopy at various temperatures

P3. **Ageev Vladislav** (Southern Federal University, Taganrog)
Study of human skin based on scanning probe microscopy

P4. **Akbaeva Galina** (Southern Federal University, Rostov-on-Don)
Behavior of nonlinear dielectric response and features of elastic properties in multicomponent ceramics based on PZT

P5. **Akberova Elmara** (Voronezh State University, Voronezh)
The surface analysis of the membranes with the different degree of cation-exchanger dispersity by AFM method

P6. **Akberova Elmara** (Voronezh State University, Voronezh)
The surface electrical heterogeneity of the membranes with the different degree of cation-exchanger dispersity

P7. **Akhmatkhanov Andrey** (Ural Federal University, Ekaterinburg)
Formation of the charged domain walls in lithium niobate single crystals with various electrode types.

P8. **Akovantseva Anastasia** (Institute of Photonic Technologies, Moscow)
Influence of the morphology of laser-induced structure surface on the luminescence of thermostable polybenzimidazoles

P9. **Al-Alwani Ammar** (Saratov State University, Saratov)
Effect of subphase conditions on the formation of graphene langmuir monolayer

P10. **Alekseev Alexander** (National Research University "MIET", Moscow)
Reconstruction of volume structure of carbon based conductive polymer composites

P11. **Avilov Vadim** (Southern Federal University, Taganrog)
Modeling of titanium oxide nanostructures formation process by local anodic oxidation

P12. **Barabanova Ekaterina** (Tver State University, Tver)
Properties of KNN ceramics of different phase composition

P13. **Baraishuk Sergey** (Belarusian State Agrarian Technical University, Minsk, Belarus)
Investigation of the surface of thin films of the InSb-MnSb composite

P14. **Baraishuk Sergey** (Belarusian State Agrarian Technical University, Minsk, Belarus)
Surface topography of precursors Cu-Zn-Sn electrochemically deposited on Mo / glass and Mo-foil

P15. **Begletsova Nadejda** (Saratov State University, Saratov)
Study of the surface microrelief of copper nanoparticles by the method of scanning probe microscopy
P16. Bodnarchuk Yadviga (Shubnikov Institute of Crystallography, Moscow)  
Electron-beam and AFM domain writing in the relaxor ferroelectric SBN

P17. Borodin Bogdan (Ioffe Institute, Saint Petersburg)  
Local anodic oxidation of graphene layers on SiC

P18. Chaplygin Konstantin (Samara University, Samara)  
Comparative analysis of Young's modulus measurements of grains of alloys 1013 and B-1461 by the SPM method

P19. Chezganov Dmitry (Ural Federal University, Ekaterinburg)  
Electron beam periodical poling in [001]c-poled PMN-39PT single crystal

P20. Chuvakova Maria (Ural Federal University, Ekaterinburg)  
Self-organized growth of dendrite domains in lithium niobate and lithium tantalate single crystals

P21. Dementyeva Maria (Kurchatov Institute, Moscow)  
TEM and HRTEM techniques for investigation of cobalt recovery temperature dependence under ion beam irradiation

P22. Dementyeva Maria (Kurchatov Institute, Moscow)  
Use of EELS STEM technique to estimate the depth reduction of tungsten oxide under proton irradiation

P23. Esin Alexander (Ural Federal University, Ekaterinburg)  
XPS studies of PMIDA adsorbed on Fe₃O₄ magnetic nanoparticles surfaces

P24. Frolova Anastasiya (Institute of Photonic Technologies, Moscow)  
Modern methods of atomic force microscopy in biomedical research

P25. Gavrikov Maksim (Saratov State University, Saratov)  
Analysis of the conduction mechanism through InSb quantum dot by tunnel CVC method

P26. Gimadeeva Lubov (Ural Federal University, Ekaterinburg)  
Domain structure and grain orientation in PLZT ceramics using electron backscatter diffraction and piezoresponse force microscopy

P27. Gruzdev Dmitry (Institute of organic synthesis UB RAS, Ekaterinburg)  
Molecular packing, piezo- and pyroelectric properties of tert-butyl N-(tert-butoxycarbonyl)-(S)-prolinamide

P28. Gushchina Ekaterina (Ioffe Institute, Saint Petersburg)  
Current and piezoresponse measurements of repolarized regions of thin PbZr₅₄Ti₄₆O₃ films

P29. Il'in Oleg (Southern Federal University, Taganrog)  
Adhesive coatings based on aligned arrays of carbon nanostructures

P30. Il'ina Marina (Southern Federal University, Taganrog)  
Study of the dependence of Young's modulus of vertically aligned carbon nanotubes on their aspect ratio

P31. Ivanov Yuri (Institute of Biomedical Chemistry, Moscow)  
Influence of AC electric field on the charge generation in albumin solution in a flow-based AFM-fishing system

P32. Jityaev Igor (Southern Federal University, Taganrog)  
Influence of the focused ion beam parameters on the etching of planar nanosized multigraphene / SiC field emitters
P33. Kamenev Anton (CJSC SuperOx, Moscow)
EDX-analysis for thin films thicknesses determination

P34. Khanipov Timur (Zavoisky Physical-Technical Institute, Kazan)
Investigation of combined influence of mechanical strain and high temperature on permalloy submicron particles switching field

P35. Kim Myongho (Changwon National University, Changwon, Korea)
Defect mechanism and electrical properties of BiFeO3 based ceramics

P36. Kiryakov Arseny (Ural Federal University, Ekaterinburg)
Microstructure and luminescent properties of transparent MgAl2O4 nanoceramics

P37. Kiseleva Elina (Saratov State University, Saratov)
Change in the surface density of immobilized enzyme molecules due to photoelectron processes in a silicon substrate

P38. Klinova Svetlana (The Medical Research Center for Prophylaxis and Health Protection in Industrial Workers, Ekaterinburg)
In vivo toxicity of Al2O3, TiO2, and SiO2 nanoparticles acting in different combinations and its alleviation with a complex of bioprotectors

P39. Kokatev Alexander (Petrozavodsk State University, Petrozavodsk)
Flexible anodic alumina nanomembranes

P40. Kolomiytsev Alexey (Southern Federal University, Taganrog)
Fabrication of probes for scanning near-field optical microscopy using focused ion beam

P41. Komshin Aleksandr (Bauman Moscow State Technical University, Moscow)
Investigation of geometric characteristics of the titanuim alloy surface subjected to magnetic-impulse processing by means of SPM

P42. Komshin Aleksandr (Bauman Moscow State Technical University, Moscow)
Control of operational properties of the structural materials using AFM and SEM methods

P43. Kosareva Ekaterina (Semenov Institute of Chemical Physics RAS, Moscow)
Application of atomic force microscopy to studying of aluminum nanopowder

P44. Kots Ivan (Southern Federal University, Taganrog)
Masking layer formation on silicon substrate by the focused ion beams method for plasma-chemical treatment

P45. Kozodaev Maxim (Moscow Institute of Physics and Technology, Moscow)
Improved ferroelectric performance of La:Hf0.5Zr0.5O2 thin films

P46. Kukharenko Lyudmila (Belarusian State Medical University, Minsk, Belarus)
The use of atomic force microscopy for human mesenchymal stem cells study

P47. Kunkel Tatyana (Ioffe Institute, Saint Petersburg)
Study of charge state of polarization domain walls in organic ferroelectric 2-methylbenzimidazole crystals

The changes in morphology of the wear-resistant ZrN coatings surfaces under the influence of the third elements additives

Morphology of multilayer AlN/SiN coatings
Friction coefficient obtained using AFM as a criterion of changes in the surface properties after low-temperature plasma treatment

The influence of multilayer metal-carbon coatings composition with different arrangement of functional layers on their surface morphology

P52. Lashkova Anastasia (Shubnikov Institute of Crystallography, Moscow)
Scanning capacitance microscopy of TGS – TGS + Cr ferroelectric crystals

P53. Lobov Ivan (Omsk Scientific Center of the Siberian Branch of the RAS, Omsk)
Work function tuning of the individual polyaniline/carbon nanotube nanostructures

P54. Lukyanenko Anna (Kirensky Institute of Physics, Krasnoyarsk)
Fabrication process for producing silicon nanowire field effect transistors

P55. Lysogorskii Yuri (Zavoisky Physical-Technical Institute, Kazan)
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P56. Mamin Rinat (Zavoisky Physical-Technical Institute, Kazan)
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P57. Maslyanaya Kristina (Ural Federal University, Ekaterinburg)
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P58. Melnikova Galina (A.V. Luikov Heat and Mass Transfer Institute of National Academy of Science of Belarus, Minsk, Belarus)
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P60. Mirzadeh Pegah (University of Aveiro, Aveiro, Portugal)
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P61. Mishigdorziyn Undrakh (East Siberia State University of Technology and Management, Ulan-Ude)
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P62. Mishigdorziyn Undrakh (East Siberia State University of Technology and Management, Ulan-Ude)
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P63. Morozova Anna (Kazan Federal University, Kazan)
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P64. Mushinsky Sergey (Perm Research and Production Instrument Making Company (PNPPK), Perm)
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P65. Nasedkin Andrey (Southern Federal University, Rostov-on-Don)
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P66. Neradovskaia Elizaveta (Ural Federal University, Ekaterinburg)
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P67. Nurgazizov Niyaz (Zavoisky Physical-Technical Institute, Kazan)
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P68. Pakhomov Alexey (Voronezh State University, Voronezh)
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P69. Park Tae-Gone (Changwon National University, Changwon, Korea)
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P70. Pavlov Dmitry (Zavoisky Physical-Technical Institute, Kazan)
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P71. Pavlov Dmitry (Zavoisky Physical-Technical Institute, Kazan)
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P72. Pelegova Elena (Ural Federal University, Ekaterinburg)
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P73. Polyakova Viktoria (Southern Federal University, Taganrog)
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P74. Pryakhina Victoria (Ural Federal University, Ekaterinburg)
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P75. Raevskaya Svetlana (Southern Federal University, Rostov-on-Don)
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P76. Raevski Igor (Southern Federal University, Rostov-on-Don)
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P77. Rezvan Alexey (Southern Federal University, Taganrog)
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P78. Rezvan Alexey (Southern Federal University, Taganrog)
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P79. Savchenkov Evgeny (Tomsk State University of Control Systems and Radioelectronics, Tomsk)
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P80. Senkevich Stanislav (Ioffe Institute, Saint Petersburg)
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P81. Sergeeva Olga (Tver State University, Tver)
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P82. Shatalov Aleksandr (National Research University «Higher School of Economics», Moscow)
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P83. Shavkuta Boris (Sechenov First Moscow State Medical University, Moscow)
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P84. Shcherbakova Olga (Ishlinsky Institute for Problems in Mechanics of the RAS, Moscow)
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P85. Shikhova Vera (Ural Federal University, Ekaterinburg)
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P86. Shkalei Ivan (Ishlinsky Institute for Problems in Mechanics of the RAS, Moscow)
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P88. Slautin Boris (Ural Federal University, Ekaterinburg)
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P89. Smolyarova Tatyana (Kirensky Institute of Physics, Krasnoyarsk)
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P90. Smolyarova Tatyana (Kirensky Institute of Physics, Krasnoyarsk)
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P92. Stekleneva Lubov (Voronezh State Technical University, Voronezh)
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P94. Tofail Syed (University of Limerick, Limerick, Ireland)
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P98. **Ushakov Andrey** (Ural Federal University, Ekaterinburg)
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P99. **Vakulenko Aleksandr** (Peter the Great Saint Petersburg Polytechnic University, Saint Petersburg)
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P107. **Lebedev Vasily** (Lomonosov Moscow State University, Moscow)
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