

Detailed program of SPM-2018

August 26, Sunday

Youth Conference

Application of Scanning Probe Microscopy in Scientific Research

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

August 27, Monday

08.30	Registration, Kuibysheva str. 48, 7th floor
09.00	Opening, Kuibysheva str. 48, 7th floor
	Session 1. SPM in material science I (chair Alexander Saranin)
09.30	I01. Victor Bykov, NT-MDT Spectrum Instruments, Moscow 3D visualizations of solid surfaces properties by Scanning Probe Microscopy and spectroscopy technics
10.00	I02. Viktor Mironov, IPM RAS, Nizhny Novgorod Magnetic resonance force microscopy
10.30	I03. Vladimir Shur, Ural Federal University, Ekaterinburg Regular and irregular shaped isolated domains in uniaxial ferroelectrics
11.00	Tea break
11.15	I04. Gennady Mikhailov, IMT RAS, Chernogolovka Magnetic force microscopy of epitaxial Fe ₂ CoAl and Co ₂ FeAl Heusler alloy films and microstructures
11.45	O01. Andrei Shubin, Ostec ArtTool, Moscow Bulk microstructure of nanocomposites studied by the impulse acoustic microscopy technique
12.00	O02. Vera Neudachina, Intertech Corporation, Moscow Novel developments in SPM instrumentation: Interferometer displacement sensor and high-resolution video-rate AFM
12.15	O03. Maxim Minin, IMC, Moscow Scanning probe microscopy in ultra-high vacuum. Techniques and capabilities by Scienta Omicron
12.30	Group photo and lunch
	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 , <i>São Paulo State University, Brazil</i> Electrical properties and polarization switching in polycrystalline BiFeO ₃ thin films
15.30	O04. Vyacheslav Polyakov , <i>NT-MDT Spectrum Instruments, Moscow</i> TBA
15.45	O05. Sergey Butiaikin , <i>Promenergolab, Moscow</i> Park Systems Atomic Force Microscopes (AFM)
16.00	O06. Evgeny Skorokhodov , <i>IPM RAS, Nizhny Novgorod</i> The effect of the probe magnetic moment orientation of magnetic resonance force microscope on the spectra of spin wave resonances
16.15	O07. Talgat Sharipov , <i>Bashkir State University, Ufa</i> The study of supramolecular structure of asphaltenes by atomic force microscopy
16.30	O08. Denis Sokolov , <i>Omsk Scientific Center, Omsk</i> Electrical properties of irradiated individual multi-walled carbon nanotubes at gases adsorption
16.45	<i>Tea break</i>
17.00- 18.15	Session 3. Short oral talks of young scientists (chair Alexey Pugachev)
18.15 - 20.00	Poster session, Kuibysheva str. 48, 5 th floor

August 28, Tuesday

	Session 4. SPM in material science III (chair Alexander Ankudinov)
09.00	I08. Alexander Volodin , <i>University Leuven, Belgium</i> Magnetic resonance force microscopy of individual domain wall
09.30	O09. Mikhail Dunaevskiy , <i>Ioffe Institute, Saint-Petersburg</i> Measurement of the bending of thin inclined nanowires as a method for determining elastic modulus
09.45	O10. Lev Fomin , <i>IMT RAS, Chernogolovka</i> Probe microscopy of epitaxial structures made of metals: electron transport and exchange bias versus surface morphology
10.00	O11. Yevgeny Golubev , <i>Institute of Geology Komi UB RAS, Syktyvkar</i> Structure of natural impact glasses on AFM data
10.15	O12. Tatyana Sazanova , <i>Nizhny Novgorod State Technical University, Nizhny Novgorod</i> AFM-based approach to establish structure/property type correlations for polymeric functional materials
10.30	O13. Natalia Andreeva , <i>Saint Petersburg Electrotechnical University "LETI", Saint-Petersburg</i> Filamentary charge carrier injection in heterogeneous oxide systems
10.45	<i>Tea break</i>
	Session 5. 1D and 2D nanostructured materials (chair Viktor Mironov)
11.00	I09. Andrey Zotov , <i>IACP FEB RAS, Vladivostok</i> Self-assembled quasi-1D and 2D nanostructure of fullerenes on silicon
11.30	I10. Manika Khanuja , <i>Jamia Millia Islamia, India</i> Advanced nanostructured materials for photocatalytic water purification
12.00	O14. Alexander Saranin , <i>IACP FEB RAS, Vladivostok</i> (Tl, Au)/Si(111) and (Tl, Au)/Si(100) 2D compounds: Atomic and electronic structure and transport properties
12.15	O15. Fedor Dalidchik , <i>Semenov Institute of Chem. Phys. RAS, Moscow</i> Tunnel electron-vibrational spectroscopy of adsorbed complexes on the surface of ultra-small metal nanoparticles
12.30	O16. Alexander Chaika , <i>ISSP RAS, Chernogolovka</i> Atomic and electronic structure of nanostructured few-layer graphene with self-aligned boundaries synthesized on SiC/Si(001) wafers
12.45	<i>Lunch</i>

	Session 6. Biocompatible & organic materials (chair Andrei Kholkin)
14.00	I11. Igor Yaminsky , <i>Lomonosov Moscow State University, Moscow</i> Advances of scanning probe microscopy in biomedical applications
14.30	I12. Syed Tofail , <i>University of Limerick, Ireland</i> Biological pyroelectrics for energy harvesting and infrared detection
15.00	I13. Joanna Bauer , <i>Wroclaw Univ. of Science and Technology, Poland</i> Silver modified nanomaterials for enhanced Photodynamic Therapy (PDT)
15.30	O17. Larisa Privalova , <i>Medical Research Center for Prophylaxis and Health Protection in Industrial Workers, Ekaterinburg</i> Main results obtained in a series of animal experiments for the assessment of the organism's responses to metallic nanoparticles (self-review)
15.45	O18. Daria Vasileva , <i>Ural Federal University, Ekaterinburg</i> Polymorphic phase transitions and ferroelectric properties in β -glycine crystals and micro islands
16.00	O19. Aysylu Safiullina , <i>Kazan Federal University, Kazan</i> The study of organogel formation with cyclo(leucyl-leucine) by the AFM method
16.15	O20. Alla Nuraeva , <i>Ural Federal University, Ekaterinburg</i> Mechanical and piezoelectric properties of pure and modified microtubes of diphenylalanine
16.30	<i>Excursion</i>
19.00	<i>Banquet</i>

August 29, Wednesday

	Session 7. Ferroelectrics, piezoelectrics, and ionic conductors (chair Eudes Araujo)
09.00	I14. Rinat Mamin , <i>Zavoisky Physical-Technical Institute, Kazan</i> Quasi-two-dimensional electron gas at the interface of two dielectrics: ferroelectric/antiferromagnet
09.30	I15. Igor Raevski , <i>Southern Federal University, Rostov-on-Don</i> Magnetic phase transitions in solid solutions of Fe-containing perovskite multiferroics
10.00	I16. Xiaoyong Wei , <i>Xi'an Jiaotong University, China</i> Domain control and the enhanced electro-optical properties in relaxor single crystal PMN-PT
10.30	O21. Zhenrong Li , <i>Xi'an Jiaotong University, China</i> Growth and domain structure control of PIN-PMN-PT Single Crystals
10.45	O22. Anastasia Chouprik , <i>MIPT, Dolgoprudny</i> Electric field-induced phase transformations in ferroelectric polycrystalline Hf _{0.5} Zr _{0.5} O ₂ thin films
11.00	<i>Tea break</i>
	Session 8. Ferroelectrics, piezoelectrics, and ionic conductors II (chair Wei Xiaoyong)
11.15	O23. Igor Pronin , <i>Ioffe Institute, Saint-Petersburg</i> Compositional variation of thin PZT films near morphotropic phase boundary: experiment and simulation
11.30	O24. Alexey Pugachev , <i>IAE SB RAS, Novosibirsk</i> Brillouin light scattering and second harmonic generation and of strontium barium niobate crystals
11.45	O25. Andrei Akhmatkhanov , <i>Ural Federal Univ., Ekaterinburg</i> Polarization reversal in KTP single crystals with surface dielectric layer and at elevated temperatures
12.00	O26. Tae Kwon Song , <i>Changwon National University, Korea</i> Simulation on the relation between ferroelectric and piezoelectric hysteresis loops
12.15	O27. Svetlana Raevskaya , <i>Southern Federal University, Rostov on Don</i> Dielectric properties of 1:1 ternary Pb ₂ B ³⁺ B ⁵⁺ O ₆ perovskite ceramics sintered from mechanochemically synthesized nanopowders
12.30	O28. Alexander Esin , <i>Ural Federal University, Ekaterinburg</i> Control of charged domain wall parameters in lithium niobate single crystals using various liquid and solid electrodes

12.45	<i>Lunch</i>
	Session 9. Probe lithography and domain engineering (chair Igor Yaminsky)
14.00	I16. Timur Khanipov , <i>Zavoisky Physical-Technical Institute, Kazan</i> MFM investigations of particles with configurational anisotropy fabricated by scanning probe and microsphere lithography
14.30	O29. Anton Turygin , <i>Ural Federal University, Ekaterinburg</i> Investigation of self-organization effects during local switching on non-polar cuts of lithium niobate crystals
14.45	O30. Alexey Zhukov , <i>Institute of Solid State Physics, Chernogolovka</i> Peculiarities of the applications of the two-probe AFM manipulator
15.00	O31. Vadim Avilov , <i>Southern Federal University, Taganrog</i> Formation and study of the RAM memory elements by local anodic oxidation method
15.15	O32. Dmitry Chezganov , <i>Ural Federal University, Ekaterinburg</i> Domain patterning by focused electron beam in wide temperature range in lithium niobate crystal with surface dielectric layer
	Session 10. Theory, modeling, and data processing (chair Rinat Mamin)
15.30	I18. Vladimir Bystrov , <i>IMPB RAS, Pushchino</i> Ferroelectric nanocomposites based on polymer ferroelectrics and graphene/oxide graphene: Computer modeling and SPFM experiments
16.00	O33. Andrey Nasedkin , <i>Southern Federal University, Rostov on Don</i> Numerical modelling of two-phase piezocomposites with interface mechanical anisotropic effects
16.15	O34. Valentina Pukhova , <i>Saint Petersburg Electrotechnical University "LETI", Saint-Petersburg</i> Adaptive time-frequency analysis of signals in AFM
16.30	O35. Alexander Rassadin , <i>Nizhny Novgorod Mathematical Society, Nizhny Novgorod</i> On exact solution of the Kardar-Parisi-Zhang equation with determinate spatially-inhomogeneous source
16.45	<i>Closing</i>

Short oral talks of young scientists, August 28

- 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/P35. Kiryakov Arseny** (Ural Federal University, Ekaterinburg)
Microstructure and luminescent properties of transparent MgAl₂O₄ nanoceramics
- SO7/P36. Kiseleva Elina** (Saratov State University, Saratov)
Change in the surface density of immobilized enzyme molecules due to photoelectron processes in a silicon substrate
- SO8/P38. Kokatev Alexander** (Petrozavodsk State University, Petrozavodsk)
Flexible anodic alumina nanomembranes
- SO9/P40. 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
- SO10/P42. Kosareva Ekaterina** (Semenov Institute of Chemical Physics RAS, Moscow)
Application of atomic force microscopy to studying of aluminum nanopowder
- SO11/P46. Kunkel Tatyana** (Ioffe Institute, Saint-Petersburg)
Study of charge state of polarization domain walls in organic ferroelectric 2-methylbenzimidazole crystals
- SO12/P52. Lobov Ivan** (Omsk Scientific Center of the Siberian Branch of the RAS, Omsk)
Work function tuning of the individual polyaniline/carbon nanotube nanostructures
- SO13/P53. Lukyanenko Anna** (Kirensky Institute of Physics, Krasnoyarsk)
Fabrication process for producing silicon nanowire field effect transistors

- SO14/P61. 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
- SO15/P73. Pryakhina Victoria** (Ural Federal University, Ekaterinburg)
As-grown domain structures in lithium tantalate with inhomogeneous stoichiometry deviation
- SO16/P87. Slautin Boris** (Ural Federal University, Ekaterinburg)
Local study of lithiation and degradation paths in LiMn_2O_4 battery cathodes via scanning probe and confocal Raman microscopies
- SO17/P88. Smolyarova Tatyana** (Kirensky Institute of Physics, Krasnoyarsk)
Characterization of Au/Fe₃Si nanocrystals obtained by MBE
- SO18/P92. Syritskii Antoni** (Bauman Moscow State Technical University, Moscow)
Scanning probe microscopy application in a research of opal nanostructures
- SO19/P98. Udalov Artur** (Ural Federal University, Ekaterinburg)
On the shape instability of the moving domain wall in uniaxial ferroelectric
- SO20/P99. Ushakov Andrey** (Ural Federal University, Ekaterinburg)
In situ study of the domain kinetics in [001]-poled PMN-39PT single crystal during polarization reversal
- SO21/P104. Vlasov Evgeny** (Ural Federal University, Ekaterinburg)
Domain creation by electron and ion beams in lithium tantalate crystals

Poster session, August 28

- 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)
The charged domain walls formation 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. Gruzdev Dmitry** (Institute of organic synthesis UB RAS, Ekaterinburg)
Molecular packing, piezo- and pyroelectric properties of *tert*-butyl *N*-(*tert*-butoxycarbonyl)-(*S*)-prolinamide
- P27. Gushchina Ekaterina** (Ioffe Institute, Saint-Petersburg)
Current and piezoresponse measurements of repolarized regions of thin PbZr₅₄Ti₄₆O₃ films
- P28. Il'in Oleg** (Southern Federal University, Taganrog)
Adhesive coatings based on aligned arrays of carbon nanostructures
- P29. Il'ina Marina** (Southern Federal University, Taganrog)
Study of the dependence of Young's modulus of vertically aligned carbon nanotubes on their aspect ratio
- P30. 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
- P31. Jityaev Igor** (Southern Federal University, Taganrog)
Influence of the focused ion beam parameters on the etching of planar nanosized multigraphene / SiC field emitters

- P32. Kamenev Anton** (CJSC SuperOx, Moscow)
EDX-analysis for thin films thicknesses determination
- P33. Khanipov Timur** (Zavoisky Physical-Technical Institute, Kazan)
Investigation of combined influence of mechanical strain and high temperature on permalloy submicron particles switching field
- P34. Kim Myongho** (Changwon National University, Changwon, Korea)
Defect mechanism and electrical properties of BiFeO₃ based ceramics
- P35. Kiryakov Arseny** (Ural Federal University, Ekaterinburg)
Microstructure and luminescent properties of transparent MgAl₂O₄ nanoceramics
- P36. Kiseleva Elina** (Saratov State University, Saratov)
Change in the surface density of immobilized enzyme molecules due to photoelectron processes in a silicon substrate
- P37. 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
- P38. Kokatev Alexander** (Petrozavodsk State University, Petrozavodsk)
Flexible anodic alumina nanomembranes
- P39. Kolomiytsev Alexey** (Southern Federal University, Taganrog)
Fabrication of probes for scanning near-field optical microscopy using focused ion beam
- P40. Komshin Aleksandr** (Southern Federal University, Taganrog)
Investigation of geometric characteristics of the titanium alloy surface subjected to magnetic-impulse processing by means of SPM
- P41. Komshin Aleksandr** (Southern Federal University, Taganrog)
Control of operational properties of the structural materials using AFM and SEM methods
- P42. Kosareva Ekaterina** (Semenov Institute of Chemical Physics RAS, Moscow)
Application of atomic force microscopy to studying of aluminum nanopowder
- P43. Kots Ivan** (Southern Federal University, Taganrog)
Masking layer formation on silicon substrate by the focused ion beams method for plasma-chemical treatment
- P44. Kozodaev Maxim** (Moscow Institute of Physics and Technology, Moscow)
Improved ferroelectric performance of La:Hf_{0.5}Zr_{0.5}O₂ thin films
- P45. Kukharenko Lyudmila** (Belarusian State Medical University, Minsk, Belarus)
The use of atomic force microscopy for human mesenchymal stem cells study
- P46. Kunkel Tatyana** (Ioffe Institute, Saint-Petersburg)
Study of charge state of polarization domain walls in organic ferroelectric 2-methylbenzimidazole crystals
- P47. Kuznetsova Tatyana** (A.V. Luikov institute of Heat and Mass Transfer of National Academy of Science of Belarus, Minsk, Belarus)
The changes in morphology of the wear-resistant ZrN coatings surfaces under the influence of the third elements additives
- P48. Kuznetsova Tatyana** (A.V. Luikov institute of Heat and Mass Transfer of National Academy of Science of Belarus, Minsk, Belarus)
Morphology of multilayer AlN/SiN coatings

- P49. Lapitskaya Vasilina** (A.V. Luikov institute of Heat and Mass Transfer of National Academy of Science of Belarus, Minsk, Belarus)
Friction coefficient obtained using AFM as a criterion of changes in the surface properties after low-temperature plasma treatment
- P50. Lapitskaya Vasilina** (A.V. Luikov institute of Heat and Mass Transfer of National Academy of Science of Belarus, Minsk, Belarus)
The influence of multilayer metal-carbon coatings composition with different arrangement of functional layers on their surface morphology
- P51. Lashkova Anastasia** (Shubnikov Institute of Crystallography, Moscow)
Scanning capacitance microscopy of TGS – TGS + Cr ferroelectric crystals
- P52. Lobov Ivan** (Omsk Scientific Center of the Siberian Branch of the RAS, Omsk)
Work function tuning of the individual polyaniline/carbon nanotube nanostructures
- P53. Lukyanenko Anna** (Kirensky Institute of Physics, Krasnoyarsk)
Fabrication process for producing silicon nanowire field effect transistors
- P54. Mamin Rinat** (Zavoisky Physical-Technical Institute, Kazan)
Optical stimulated transfer from glass state to polar phase in relaxors
- P55. Maslyanaya Kristina** (Ural Federal University, Ekaterinburg)
Domain formation by ion beam in lithium niobate crystal with surface charging by UV-flood gun
- P56. Melnikova Galina** (A.V. Luikov Heat and Mass Transfer Institute of National Academy of Science of Belarus, Minsk, Belarus)
The influence silicon dioxide nanoparticles on mechanical properties of erythrocyte and platelet membranes estimated by atomic force microscopy method
- P57. Melnikova Galina** (A.V. Luikov Heat and Mass Transfer Institute of National Academy of Science of Belarus, Minsk, Belarus)
The characterization soft and heterogeneous surfaces with map of elasticity properties obtained by atomic force microscopy method
- P58. Mirzadeh Pegah** (University of Aveiro, Aveiro, Portugal)
Giant strain and induced ferroelectricity in amorphous BaTiO₃ films and multiferroic heterostructure under poling
- P59. Mishigdorzhyn Undrakh** (East Siberia State University of Technology and Management, Ulan-Ude)
Microstructural approach in addressing the issue of repeated use of TFE-fluorocarbon additives and its influence on car engines
- P60. Mishigdorzhyn Undrakh** (East Siberia State University of Technology and Management, Ulan-Ude)
Borided steel topography and phase contrast in tapping mode of atomic force microscopy
- P61. 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

- P62. Mushinsky Sergey** (Perm Research and Production Instrument Making Company (PNPPK), Perm)
Structural phase transitions during annealing of proton-exchanged layers on X-cut and Z-cut lithium niobate
- P63. Nasedkin Andrey** (Southern Federal University, Rostov on Don)
Comparative analysis of spherical focusing transducers from dense and porous piezoceramic materials
- P64. Nurgazizov Niyaz** (Zavoisky Physical-Technical Institute, Kazan)
Visualization of mechanical stress of near-surface layer by analyze of MFM images of planar permalloy microparticles formed on surface
- P65. Pakhomov Alexey** (Voronezh State University, Voronezh)
Repolarization of ferroelectric superlattices BaZrO₃/BaTiO₃
- P66. Park Tae-Gone** (Changwon National University, Changwon, Korea)
Development of multi-legged walking robot using piezoelectric benders
- P67. Pavlov Dmitry** (Zavoisky Physical-Technical Institute, Kazan)
Electrical properties of heterointerfaces composed of complex ferroelectric oxides: an experimental investigation
- P68. Pavlov Dmitry** (Zavoisky Physical-Technical Institute, Kazan)
Quasi-two-dimensional electron system at the interface between antiferromagnet LaMnO₃ and ferroelectric Ba_{0.8}Sr_{0.2}TiO₃
- P69. Pelegova Elena** (Ural Federal University, Ekaterinburg)
Local polarization reversal in KTP single crystals
- P70. Piyanzina Irina** (Zavoisky Physical-Technical Institute, Kazan)
Structural and electronic properties of heterointerfaces composed of complex ferroelectric oxides
- P71. Piyanzina Irina** (Zavoisky Physical-Technical Institute, Kazan)
Structural, electronic and optical properties of heterointerfaces based on antiferromagnet LaMnO₃ and ferroelectrics isostructural to BaTiO₃
- P72. Polyakova Viktoriya** (Southern Federal University, Taganrog)
Study of the surface profiling of silicon based on the method of local anodic oxidation using scanning probe microscopy
- P73. Pryakhina Victoria** (Ural Federal University, Ekaterinburg)
As-grown domain structures in lithium tantalate with inhomogeneous stoichiometry deviation
- P74. Raevskaya Svetlana** (Southern Federal University, Rostov on Don)
The effect of mechanical activation on relaxor properties of PbMg_{1/3}Nb_{2/3}O₃ - PbFe_{1/2}Nb_{1/2}O₃ solid solution ceramics
- P75. Raevski Igor** (Southern Federal University, Rostov on Don)
The effect of the bias electric field on the dielectric and pyroelectric properties of single crystals and ceramics of Pb₂ScNbO₆ relaxor ferroelectric
- P76. Rezvan Alexey** (Southern Federal University, Taganrog)
Local anodic oxidation by the probe method as a surface modification method for nanoscale profiling
- P77. Rezvan Alexey** (Southern Federal University, Taganrog)
Study of formation of high aspect GaAs structures based on the method of focused ion beams

- P78. Savchenkov Evgeny** (Tomsk State University of Control Systems and Radioelectronics, Tomsk)
Light diffraction on periodically poled domain structures in lithium niobate crystal in an sinusoidal voltage
- P79. Senkevich Stanislav** (Ioffe Institute, Saint-Petersburg)
Microstructure and piezoelectric response of AlN/SiC heterostructures grown on silicon substrates of different orientation
- P80. Sergeeva Olga** (Tver State University, Tver)
Microstructure and electrical properties of thin SiC films on Si substrates of p- and n-types
- P81. Shatalov Aleksandr** (National Research University «Higher School of Economics», Moscow)
Probe microscopy in the study of the process of template synthesis
- P82. Shavkuta Boris** (Sechenov First Moscow State Medical University, Moscow)
Nanoidometry of human donor cornea for detecting the effectiveness of laser induced collagen crosslinking
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