

Detailed program of SPM-2017

August 27, Sunday

Youth Conference

Application of Scanning Probe Microscopy in Scientific Research

10.30 - 12.00	<i>Visit to Ural Center for Shared Use "Modern Nanotechnologies" UrFU, Kuibysheva str. 48, 2nd floor</i>
13.30	L1. Viktor Bykov , <i>NT-MDT Spectrum Instruments, Moscow</i> Origin, Development, and Prospects for Development of Metrological Equipment Based on MEMS and NEMS
14.15	L2. Alexander Saranin , <i>Institute of Automation and Control Processes FEB RAS, Vladivostok</i> Study of the Self-Organization of Atoms and Molecules on the Surface of Silicon and Germanium by Means of Scanning Tunneling Microscopy
15.00	L3. Vladimir Shur , <i>Ural Federal University, Ekaterinburg</i> Study of Ferroelectric Domain Structure by Scanning Probe Microscopy
15.45	<i>Tea break</i>
16.00	L4. Anastas Bukharaev , <i>The Kazan E.K. Zavoisky Physical-Technical Institute RAS, Kazan</i> Formation and Study of Magnetic Structures by Scanning Probe Microscope
16.45	L5. Viktor Mironov , <i>Institute for Physics of Microstructures RAS, Nizhny Novgorod</i> Magnetic Force Resonance Microscopy
12.00 - 18.30	Registration, Kuibysheva str. 48, 7th floor
19.00 - 21.00	<i>Welcome party, Panorama hotel, Kuibysheva str. 44, 11th floor</i>

August 28, Monday

08.30	Registration, Kuibysheva str. 48, 7th floor
09.00	Opening, Kuibysheva str. 48, 7th floor
	Session 1. New Methods of Scanning Probe Microscopy I (chair Vladimir Shur)
09.30	I01. Viktor Bykov, NT-MDT Spectrum Instruments, Moscow Scanning Probe Microscopy and Spectroscopy, State of the Art, Trends, and Level of Development in Russia
10.00	I02. Viktor Mironov, Institute for Physics of Microstructures RAS, Nizhny Novgorod Magnetic Force Microscopy of Modified Multilayer Structures Co/Pt
10.30	I03. Alexander Ankudinov, A.F. Ioffe Physical-Technical Institute, Saint Petersburg AFM Probe Tip Displacement Calibrations along Three Orthogonal Directions
11.00	Tea break
11.15	O01. Svetlana Stetsyura, Saratov State University, Saratov Obtaining and Control of Luminescent Microregions with Ntegra Spectra
11.30	O02. Yulia Polubavkina, Saint Petersburg National Research Academic University RAS, Saint Petersburg Near Field Scanning Optical Microscopy for Investigation of High Power Semiconductor Lasers
11.45	O03. Andrei Anisimov, A.F. Ioffe Physical-Technical Institute, Saint Petersburg Confocal-Probe Magnetic Resonance Spectroscopy Using Spin Centers in Silicon Carbide and Diamond
12.00	O04. Anton Turygin, Ural Federal University, Ekaterinburg Investigation of Self-Organization Effects during Local Polarization Switching on the Surface of CLN
12.15	O05. Vadim Avilov, Southern Federal University, Taganrog Probe Nanolithography of Resistive Memory Element Based on Titanium Oxide Memristor Structures
12.30	O06. Prokhor Alekseev, A.F. Ioffe Physical-Technical Institute, Saint Petersburg Optomechanical Coupling between AFM Cantilever and Semiconductor Laser

12.45	O07. Rawil Fakhrullin , <i>Kazan Federal University, Kazan</i> Nematode Epicuticle Nanoscale Morphology: Insights from Atomic Force Microscopy
13.00	<i>Lunch and group photo</i>
	Session 2. New Methods of Scanning Probe Microscopy II (chair Viktor Mironov)
14.30	O08. Vyacheslav Polyakov , <i>NT-MDT Spectrum Instruments, Moscow</i> Combining Probe and Optical Methods to Study Surface Properties with Nanometer Spatial Resolution
14.45	O09. Artem Marinchuk , <i>Melytec, Ekaterinburg</i> Methods of Visualization and Determination of Physical and Mechanical Properties of Surfaces
15.00	O10. Andrei Shubin , <i>OSTEC, Moscow</i> Innovative Solutions to Protect Scientific and Technological Equipment from Vibrations
15.30	O11. Alexei Useinov , <i>FSBI TISNCM, Troitsk, Moscow</i> Reducing the Influence of Surface Roughness on Hardness Measurement Using Instrumented Indentation Test
15.45	O12. Viktor Cheburkin , <i>Promenergolab, Moscow</i> Atomic Force Microscopes by Park Systems Company
16.00	O13. Vera Neudachina , <i>Intertech Corporation, Moscow</i> Recent AFM-Based Developments by Oxford Instruments Asylum Research and Anasys Instruments
16.15	O14. Andrei Shuravin , <i>Conetech, Moscow</i> New Possibilities of Atomic Force Microscopy from Nanosurf
16.30	O15. Sergey Krasnoborodko , <i>Sitec, Moscow</i> Developments in the Field of Vacuum Process Equipment for Laboratories
16.45	O16. Maxim Minin , <i>IMC group, Moscow</i> Scanning Probe Microscopy under Ultra High Vacuum. Technologies and Advantages from Scienta Omicron
17.00	<i>Tea break</i>
17.15 - 18.30	Session 3. Short oral talks of young scientists (chair Anastas Bukharaev)
18.30 - 20.00	Poster session, Kuibysheva str. 48, 5 th floor

August 29, Tuesday

	Session 4. International session I (chairs Xiaoyong Wei, Zhang Yong)
09.00	I04. Zhang Yong , <i>Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing, China</i> Antiferroelectrics for Energy Storage Application – Perspectives for Processing and Characterization
09.30	I05. Vladimir Shur , <i>Ural Federal University, Ekaterinburg</i> Domain Shape in Uniaxial Ferroelectrics
10.00	I06. Igor Raevski , <i>Southern Federal University, Rostov-on-Don</i> The Effect of Cr Substitution for Fe on Ferroelectric and Magnetic Properties of $\text{PbFe}_{0.5}\text{Nb}_{0.5}\text{O}_3$, $\text{PbFe}_{0.5}\text{Sb}_{0.5}\text{O}_3$ and BiFeO_3 multiferroics
10.30	O17. Jan Schultheiß , <i>Technische Universität Darmstadt, Germany</i> Experimental Approach for Investigating Polarization and Strain Switching Dynamics in Ferroelectric/Ferroelastic Materials
10.45	O18. Kunyu Zhao , <i>Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai, China</i> Nanoscale Domain Structures and Local Property Characterization of Multiferroic Materials via Scanning Probe Microscopy
11.00	<i>Tea break</i>
11.15	I07. Alexander Saranin , <i>Institute of Automation and Control Processes FEB RAS, Vladivostok</i> STM Investigation of 2D Alloys and Compounds on Si(111) and Ge(111) Surfaces
11.45	I08. Igor Lubomirsky , <i>Weizmann Institute of Science, Rehovot, Israel</i> Point Defects and Anelasticity in Pure and Gd-Doped Ceria
12.15	I09. Xiaoyong Wei , <i>Xi'an Jiaotong University, Xi'an, China</i> Domain Structure and Optical Properties of $\text{Pb}(\text{In}_{1/2}\text{Nb}_{1/2})\text{O}_3$ - $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ - PbTiO_3 Relaxor Ferroelectric Single Crystals
12.45	O19. Qingyuan Hu , <i>Ural Federal University, Ekaterinburg</i> Domain Configuration, Phase Transition and Local Switching Behavior in As-Grown 0.67 $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ -0.33 PbTiO_3 Single Crystal Revealed by Piezoresponse Force Microscopy
13.00	<i>Lunch</i>

	Session 5. International session II (chair Alexander Saranin)
14.15	I10. Gennady Mikhailov , <i>Institute of Microelectronics Technology and High Purity Materials RAS, Chernogolovka</i> Application of Magnetic Force Microscopy for Spin-Polarized Current Effect Investigation in Heteroepitaxial Ferro- and Antiferromagnetic Structures
14.45	I11. Lev Fomin , <i>Institute of Microelectronics Technology and High Purity Materials RAS, Chernogolovka</i> Abilities of Micromagnetic Calculations for Interpretation of Magnetic States in Ferromagnetic Structures
15.15	O20. Valentina Pukhova , <i>Saint Petersburg Electrotechnical University "LETI", Saint Petersburg</i> Multi-Frequency Data Analysis in AFM by Wavelet Transform
15.30	O21. Dmitry Filatov , <i>Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod</i> Investigation of Photoconductivity of Individual InAs/GaAs(001) Quantum Dots by Scanning Near-field Optical Microscopy
15.45	O22. Sergey Luchkin , <i>Skolkovo Institute of Science and Technology, Moscow</i> Probing Local Photocurrent in Inorganic CsPbBr ₃ Perovskite Films by Scanning Probe Microscopy
16.00	O23. Alexander Kozlowski , <i>Saratov State University, Saratov</i> Determination of the Glucose Oxidase Immobilization Efficiency on a Semiconductor Transducer Using Scanning Probe Microscopy
16.15	O24. Alexei Putilov , <i>Institute for Physics of Microstructures RAS, Nizhny Novgorod</i> Inter-Layer Coupling Induced Bandgap Reduction in Ultrathin MoS ₂
16.30	<i>Excursion to Yeltsin Center</i>

August 30, Wednesday

	Session 6. Ferroics (chair Igor Raevski)
09.00	I12. Niyaz Nurgazizov , <i>E.K. Zavoisky Physical-Technical Institute, Kazan</i> Investigation of Changing of Anisotropy Field of Permalloy Microparticles under Mechanical Tension by MFM Methods
09.30	O25. Andrei Akhmatkhanov , <i>Ural Federal University, Ekaterinburg</i> In Situ Study of Domain Structure Kinetics in Single Crystals of Potassium Titanyl-Phosphate
09.45	O26. Denis Alikin , <i>Ural Federal University, Ekaterinburg</i> Dielectric Relaxation and Charged Domain Walls in (K,Na)NbO ₃ -Based Ferroelectric Ceramics
10.00	O27. Mikhail Bunin , <i>Southern Federal University, Rostov-on-Don</i> The Piezoresponse Force Microscopy Study of Lead-Free Tetragonal Tungsten Bronze Relaxor Ceramics
10.15	O28. Svetlana Raevskaya , <i>Southern Federal University, Rostov-on-Don</i> The Effect of Mechanical Activation on Dielectric Properties of Ceramic Ferroelectrics-Relaxors PbMg _{1/3} Nb _{2/3} O ₃ and PbFe _{1/2} Ta _{1/2} O ₃
10.30	O29. Dmitry Chezganov , <i>Ural Federal University, Ekaterinburg</i> Study of Features of Domain Structure Formation Induced by Electron Beam Irradiation of Congruent Lithium Niobate Crystals Covered by Dielectric Layer
10.45	O30. Alexander Esin , <i>Ural Federal University, Ekaterinburg</i> Study of the Electrodes Material Influence on the Charged Domain Walls Formation in Lithium Niobate Single Crystals
11.00	O31. Victoria Pryakhina , <i>Ural Federal University, Ekaterinburg</i> Influence of Composition Gradient on Domain Structure in Lithium Niobate and Lithium Tantalate Crystals
11.15	<i>Tea break</i>
	Session 7. Scanning Probe Microscopy in Biology and Medicine (chair Andrei Kholkin)
11.30	I13. Igor Yaminsky , <i>Moscow State University, Moscow</i> Biomedical Applications of Scanning Probe Microscopy
12.00	O32. Anastasia Akovantseva , <i>Federal Research Center of Crystallography and Photonics RAS, Moscow</i> Influence of Tetrafunctional Polylactide Morphology on Regeneration of Bone Tissue Defects

12.15	O33. Andrei Astashonok , <i>Republican Research and Practical Center for Epidemiology and Microbiology, Minsk, Belarus</i> Differentiation Markers of Neurodegeneration (A β 40, A β 42, PrP27-30) in Alzheimer's Disease and Prion Diseases on the Designed Silicon Biochips
12.30	O34. Talgat Sharipov , <i>Bashkir State University, Ufa</i> The Study of Electrical Conductivity of Poly(dA) DNA Molecules
12.45	O35. Alla Nuraeva , <i>Ural Federal University, Ekaterinburg</i> Piezoelectric Properties of Diphenylalanine Microtubes: Comparison of Cyclo- and Linear Structural Forms
13.00	O36. Maxim Khalisov , <i>Pavlov Institute of Physiology, Saint Petersburg</i> Peculiarities of Living Cell Response to External Influences Revealed via Quasistatic Mode Atomic Force Microscopy
13.15	<i>Lunch</i>
	Session 8. Scanning Probe Microscopy in Materials Science (chair Alexander Ankudinov)
14.30	I14. Andrei Kholkin , <i>University of Aveiro, Portugal</i> Novel Supramolecular Biomaterials for Piezoelectric Applications
15.00	O37. Daria Vasileva , <i>Ural Federal University, Ekaterinburg</i> Domain Structure of β -Glycine Single Crystals
15.15	O38. Tatiana Sazanova , <i>Nizhny Novgorod State Technical University, Nizhny Novgorod</i> Surface Structuring Features of Polymeric Membranes Based on Chitosan According to Atomic Force Microscopy
15.30	O39. Fyodor Dalidchik , <i>Semenov Institute of Chemical Physics RAS, Moscow</i> Probe Tunneling Microscopy/Spectroscopy of Polyoxometallate Molecules
15.45	O40. Ivan Lobov , <i>Omsk Scientific Center SB RAS, Omsk</i> AFM Study of the Supramolecular Structure Transformation of Polyaniline and Composite "Polyaniline/Carbon Nanotubes" upon Doping with Dodecylbenzenesulfonic Acid in the Presence of a Solvent
16.00	O41. Denis Sokolov , <i>Omsk Scientific Center SB RAS, Omsk</i> Combination of Scanning Force Microscopy Methods to Evaluation the Electrophysical Parameters of Individual Multiwalled Carbon Nanotubes
16.15	O42. Evgeny Golubev , <i>Institute of Geology of Komi SC UB RAS, Syktyvkar</i> Scanning Probe Microscopy in Mineralogical Studies
16.30	O43. Olga Scherbakova , <i>Institute for Problems in Mechanics RAS, Moscow</i> Probe and Electron Microscopy of the Surface of Antifriction Aluminium Alloys
16.45	O44. Maria Dementieva , <i>Kurchatov Institute, Moscow</i> Quantitative Analysis of NbN Thin Films by EELS Technique in STEM Mode
17.00	<i>Closing</i>

Short oral talks of young scientists, August 28

- SO1/P35. Alexei Kolomiytsev**, Southern Federal University, Taganrog
Application of Focused Ion Beams for the Fabrication of AFM Probes
- SO2/P75. Andrei Ushakov**, Ural Federal University, Ekaterinburg
Study of Domain Structure Evolution in 0.63PMN-0.37PT Induced by Temperature Change and Application of Electric Field
- SO3/P34. Tatiana Kunkel**, Peter the Great St. Petersburg Polytechnic University, Saint-Petersburg
Local Conductivity of the (0001) Surface of Topological Insulators Based on Bi₂Te₃
- SO4/P39. Svetlana Saparina**, Kazan Federal University, Kazan
Characterization of Carbon Nanolayer of Optical Fibers via Atomic Force Microscopy and Tip-Enhanced Raman Spectroscopy
- SO5/P96. Maria Chuvakova**, Ural Federal University, Ekaterinburg
Formation of the Dendritic Domain Structures in Lithium Niobate Single Crystals
- SO6/P01. Aisylu Safiullina**, Kazan Federal University, Kazan
The Self-Organization of Leucyl-Leucine and Cyclo(Leucyl-Leucine) Dipeptides by the AFM Method
- SO7/P55. Anastasia Frolova**, Institute of Photonic Technologies, Federal Scientific Research Center "Crystallography and Photonics" RAS, Moscow
Nanodiagnosics Connective Tissue Using PF QNM Technique of Atomic Force Microscopy
- SO8/P95. Ekaterina Vaskina**, Ural Federal University, Ekaterinburg
Study of Kinetics of Domain Structure in Single Crystals of Potassium Titanyl Phosphate with a Surface Dielectric Layer of the Photoresist
- SO9/P06. Konstantin Chaplygin**, Samara University, Samara
Application of Scanning Probe Microscopy to Determine the Crystallographic Orientation of Grains in Polarized Light
- SO10/P02. Elena Chernykh**, Kazan Federal University, Kazan
Photoinduced Heating of Thin Azopolymer Films
- SO11/P73. Lubov Gimadeeva**, Ural Federal University, Ekaterinburg
Study of Nanodomain Shape in the Bulk of Relaxor Ferroelectrics: SBN Single Crystal and PLZT Ceramics
- SO12/P07. Vladislav Sharov**, Ioffe Physical-Technical Institute RAS, Saint Petersburg
Investigation of the Piezoelectric Effect in Nanowires Using AFM
- SO13/P80. Valentin Osipov**, Herzen State Pedagogical University of Russia, Saint Petersburg
Investigation of the Unipolar and Polarized Thin PZT Films under Variation of Lead Excess
- SO14/P50. Andrei Makaev**, Ural Federal University, Ekaterinburg
High-Speed Precise Cell Patterning by Pulsed Electrohydrodynamic Jet Printing

- SO15/P44. Yulia Zhuravleva**, Saratov State University, Saratov
Evaluation of the Surface Microrelief of Silicon-Chitosan-Containing Glycerogrogels by Atomic Force Microscopy
- SO16/P38. Boris Slautin**, Ural Federal University, Ekaterinburg
Uncovering the Origin of Local Electromechanical Response in $\text{Ce}_{1.9}\text{Gd}_{0.1}\text{O}_2$
- SO17/P93. Artur Udalov**, Ural Federal University, Ekaterinburg
The Velocity Dependence of the Electrical Field Near the Moving Ferroelectric Domain Wall
- SO18/P25. Igor Jityaev**, Southern Federal University, Taganrog
Study of Field Emission Nanostructures Based on Graphene Films on SiC Using Scanning Probe Microscopy

Poster session, August 28

Section 1. SPM in Materials Science

- P01. Aisylu Safiullina**, Kazan Federal University, Kazan
The Self-Organization of Leucyl-Leucine and Cyclo(Leucyl-Leucine) Dipeptides by the AFM Method
- P02. Elena Chernykh**, Kazan Federal University, Kazan
Photoinduced Heating of Thin Azopolymer Films
- P03. Anna Morozova**, Kazan Federal University, Kazan
Microscopy of Periodically-Structures Layers Formed by Ion Implantation
- P04. Raphael Batalov**, Kazan Physical-Technical Institute of RAS, Kazan
Structural and Optical Properties of Thin-Film GeSi alloy with Ag Nanoparticles Obtained by Ion Implantation and Laser Irradiation
- P05. Alexei Rogov**, Kazan Federal University, Kazan
Scanning Probe Microscopy of Silicon Layers after Ag⁺ Implantation
- P06. Konstantin Chaplygin**, Samara University, Samara
Application of Scanning Probe Microscopy to Determine the Crystallographic Orientation of Grains in Polarized Light
- P07. Vladislav Sharov**, Ioffe Physical-Technical Institute RAS, Saint-Petersburg
Investigation of the Piezoelectric Effect in Nanowires Using AFM
- P08. Tatiana Sazanova**, Nizhny Novgorod State Technical University, Nizhny Novgorod
The Surface Morphology Effect of Non-Porous Polymeric Membranes on Their Gas Separation Properties
- P09. Maria Zorina**, Institute for Physics of Microstructures RAS, Nizhny Novgorod
Application of AFM for the Investigation the Roughness of Imaging Optics Elements
- P10. Alina Krikun**, Crimean Federal University, Simferopol
Application of Scanning Probe Microscopy Methods to Control the Synthesis Technology of Multilayer Structures with Bi-Substituted Iron Garnets
- P11. Tatiana Petrova**, Cherepovets State University, Cherepovets
Using the SPM Method to Determine the Convergence of Rolled Metal with Textured Polymer Coatings
- P12. Pavel Vakhrameev**, Cherepovets State University, Cherepovets
Study of Microhardness by Atomic Force Microscopy
- P13. Marina Panova**, Cherepovets State University, Cherepovets
Measuring the Roughness of the Surface of a Textured Roll of High Chromium Steel by the AFM Method
- P14. Nadezhda Begletsova**, Saratov State University, Saratov
Investigation of Copper Nanoparticles by the Method of Scanning Probe Microscopy

- P15. Svetlana Stetsyura**, Saratov State University, Saratov
Research of the Formation of Planar Layers of Heterophase Systems CdS - PbS
Using Ntegra Spectra
- P16. Natalia Filatova**, Southern Federal University, Rostov-on-Don
The Surface Electric Potential, Internal Electric Bias Field, Pyroelectric and
Piezoelectric Effects in the Non-Poled Piezoelectric Ceramics with a Stationary
Gradient of Deformation in the Near-Electrode Layers
- P17. Elmara Akberova**, Voronezh State University, Voronezh
Surface Analysis of Strongly Basic Membranes after Temperature Treatment by
the AFM Method
- P18. Elmara Akberova**, Voronezh State University, Voronezh
Analysis of the Surface of Heterogeneous Anion-Exchange Membranes after
Electrodialysis of Natural Waters by the AFM Method
- P19. Vladimir Bystrov**, Insitiute of Mathematical Problems of Biology RAS,
Pushchino
Investigation of Physical Properties of Diphenylalanine Peptide Nanotubes
Having Different Chirality
- P20. Vladimir Bystrov**, Insitiute of Mathematical Problems of Biology RAS,
Pushchino
Polarization Switching and Piezoresponse in PVDF/P(VDF-TrFE) Ferroelectric
Films and Multifunctional G/GO Composites
- P21. Tatyana Kuznetsova**, A. V. Luikov Heat and Mass Transfer Institute of NAS
Belarus, Belarus
Tribology Properties Changes of Nanocrystalline Al-Si-N Films after Annealing
- P22. Sergey Baraishuk**, Scientific-Practical Materials Research Center of NAS
Belarus, Minsk, Belarus
Topography of the Surface of Precursors Cu-Zn-Sn Layered Electrochemically
Deposited on Mo / Glass and Mo-foil
- P23. Sergey Baraishuk**, Scientific-Practical Materials Research Center of NAS
Belarus, Minsk, Belarus
The Morphology and Surface Wettability Alloy AMg2M Modified Precipitation
of Mo under Ion Assistance
- P24. Mikhail Palatnikov**, I.V.Tananaev Institute of Chemistry and Technology of Rare
Elements and Mineral Raw Materials of the Kola Science Center RAS, Apatity
Fractal Micro- and Nanostructures and their Influence on Significant Properties
of Crystalline and Ceramic Oxide Compounds of Niobium and Tantalum
- P25. Igor Jityaev**, Southern Federal University, Taganrog
Study of Field Emission Nanostructures Based on Graphene Films on SiC Using
Scanning Probe Microscopy
- P26. Alexander Vorontsov**, Yanka Kupala State University of Grodno, Grodno,
Belarus
Morphological Factor of the Nanostate of Dispersed Particles of Condensed
Matter

- P27. Alexander Vorontsov**, Yanka Kupala State University of Grodno, Grodno, Belarus
The Phase Structure of Blend Composites Obtained by Combining of the Thermoplastic Components
- P28. Roman Fediuk**, Far Eastern Federal University, Vladivostok
Raster Electron Microscopy for Building Materials Science
- P29. Kirill Osintsev**, Siberian State Industrial University, Novokuznetsk
AFM Investigation of Titanium VT1-0 Structure Destroyed during Multicyclic Fatigue after Electron-Beam Treatment

Section 2. New Methods of SPM

- P30. Dmitry Filatov**, Lobachevsky State University of Nizhni Novgorod, Nizhni Novgorod
The Generation of the Electrical Oscillations in a Contact of an AFM Probe with an Individual Au Nanoparticle in a SiO₂/Si Film
- P31. Mikhail Dunaevskiy**, Ioffe Institute, Saint-Petersburg
Scanning Probe Method for Mapping the Intensity and Emission Spectrum of Semiconductor Laser Structures
- P32. Natalia Andreeva**, Peter the Great St. Petersburg Polytechnic University, Saint Petersburg
An Approach to Young's Modulus Determination for Atomic-Force Microscope with Interferometric Cantilever-Deflection System
- P33. Prokhor Alekseev**, Ioffe Institute, Saint Petersburg
Fermi Level Pinning on the (110) Surface of III-As Semiconductors
- P34. Tatiana Kunkel**, Peter the Great St. Petersburg Polytechnic University, Saint Petersburg
Local Conductivity of the (0001) Surface of Topological Insulators Based on Bi₂Te₃
- P35. Alexei Kolomiitsev**, Southern Federal University, Taganrog
Application of Focused Ion Beams for the Fabrication of AFM Probes
- P36. Julia Jityaeva**, Southern Federal University, Taganrog
Research of the Stiffness Coefficient and Frequency Characteristics Microcantilevers for the Vibrational Methods of AFM
- P37. Alexander Kozlowski**, Saratov State University, Saratov
Control of Bilayer Polyelectrolyte Coating Parameters Using the Kelvin Probe Microscopy
- P38. Boris Slautin**, Ural Federal University, Ekaterinburg
Uncovering the Origin of Local Electromechanical Response in Ce_{1.9}Gd_{0.1}O₂
- P39. Svetlana Saparina**, Kazan Federal University, Kazan
Characterization of Carbon Nanolayer of Optical Fibers via Atomic Force Microscopy and Tip-Enhanced Raman Spectroscopy

- P40. Dmitry Kusakin**, Ryazan State Radio Engineering University, Ryazan
Measuring-Analytical Complex for Investigation of Local C-V- Characteristics of Semiconductor Barrier Structures on the Basis of AFM
- P41. Galina Melnikova**, A.V. Luikov Heat and Mass Transfer Institute of NAS of Belarus, Belarus
Using Atomic Force Microscopy with Modified Probes for Determination Modulus of Elasticity and Adhesion Strength of the Materials
- P42. Alexey Rusakov**, FSBI TISNCM, Troitsk, Moscow
Shape Verification of the Nanoindenter's Tip Using a Piezoresonance Probe with a Test Grating
- P43. Ekaterina Gladkikh**, FSBI TISNCM, Troitsk, Moscow
Implementation of Profiling in Hardness Testers with Application of SPM Methods
- P44. Dmitry Zagorskiy**, Center of Crystallography and Photonics of RAS, Moscow
Probe Microscopy of Adhesive and Viscous Parameters of Elastomers

Section 3. SPM in Biology and Medicine

- P45. Yulia Zhuravleva**, Saratov State University, Saratov
Evaluation of the Surface Microrelief of Silicon-Chitosan-Containing Glycerogrogels by Atomic Force Microscopy
- P46. Anna Morozova**, Kazan Federal University, Kazan
Self-Organization of Tripeptide L-Glycyl-L-Glycyl-L-Glycine in Films before and after Interaction with Vapors of Organic Substances According to AFM
- P47. Timofei Gubarev**, Ural Federal University, Ekaterinburg
Piezoelectric Properties of α -Glycine and dl-Alanine Single Crystals
- P48. Vladimir Yuzhakov**, Ural Federal University, Ekaterinburg
Measurements of Local Young's Moduli of Diphenylalanine Micro- and Nanotubes
- P49. Aimee Stapleton**, University of Limerick, Limerick, Ireland
Converse Piezoelectricity and Ferroelectricity in Crystals of Lysozyme Protein Revealed by Piezoresponse Force Microscopy
- P50. Svitlana Kopyl**, University of Aveiro, Aveiro, Portugal
Chemically Stable Diphenylalanine Peptide Microtubes: Structure, Properties, Application
- P51. Andrei Makaev**, Ural Federal University, Ekaterinburg
High-Speed Precise Cell Patterning by Pulsed Electrohydrodynamic Jet Printing
- P52. Dmitry Gruzdev**, Institute of organic synthesis, UB RAS, Ekaterinburg
Piezoelectric Properties of the Crystals of Ortho-Carboranyl (S)-Phenylalanine and (S)-Valine Derivatives
- P53. Dmitry Kuznetsov**, Ural Federal University, Ekaterinburg
Study of Structural Coloration of Butterfly Wing Scales

- P54. Anna Kaysheva**, Institute of Biomedical Chemistry, Moscow
Combination of Atomic Force Microscopy and Mass Spectrometry for the Target Protein in the Serum Samples of Children with Autism Spectrum Disorders
- P55. Victoria Timofeeva**, N.N. Semenov Institute of Chemical Physics, Moscow
Early Radiation-Induced Damage of the Extracellular Matrix of Pelvic Organs Tracked by Nonlinear Optical and Atomic Force Microscopies
- P56. Anastasia Frolova**, Institute of Photonic Technologies, Federal Scientific Research Center "Crystallography and Photonics" RAS, Moscow
Nanodiagnostics Connective Tissue Using PF QNM Technique of Atomic Force Microscopy
- P57. Yaroslav Borisov**, Saint Petersburg State University, Saint Petersburg
Modern Abilities for Biomedical Research in Saint Petersburg State University
- P58. Ludmila Kukharengo**, Belarusian State Medical University, Minsk, Belarus
Application of Atomic Force Microscopy to Evaluate the Morphofunctional State of Platelets in Patients with End-Stage Heart Failure
- P59. Ludmila Kukharengo**, Belarusian State Medical University, Minsk, Belarus
The Use of Atomic Force Microscopy for Structural and Surface Morphological Analysis of Fanconi Anemia Patient Fibroblasts before and after Exposure to γ -Radiation
- P60. Maria Starodubtseva**, Gomel State Medical University, Belarus
Physical-Mechanical Image of the Cell Surface on the Base of AFM Data in Contact Mode

Section 4. SPM Analytical Methods and Probe Lithography

- P61. Alexei Putilov**, Institute for Physics of Microstructures RAS, Nizhny Novgorod
Initial Stage of Ge Growth on Au(111) Surface
- P62. Gaziz Akbutin**, Bashkir State University, Ufa
Investigation of the Electrical Conductivity of Oligonucleotides
- P63. Alexander Alekseev**, National Research University "MIET", Moscow
Study of the Local Charge Transport in Photoactive Blends Based on Polymer PTB7
- P64. Alexander Mikhaylov**, Ioffe Physical-Technical Institute RAS, Saint Petersburg
Study of Surface Potential in Location of p-n Junction on the Chip of the GaAs Heterostructures Using Atomic-Force Microscopy
- P65. Elena Goleva**, Voronezh State University, Voronezh
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- P66. Tamara Muravyeva**, Institute for Problems in Mechanics RAS, Moscow
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- P67. Anna Lukyanenko**, Kirensky Institute of Physics, Krasnoyarsk
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- P68. Tatiana Smolyarova**, Kirensky Institute of Physics, Krasnoyarsk
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- P69. Tatiana Kuznetsova**, A. V. Luikov Heat and Mass Transfer Institute of NAS
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- P70. Roman Tominov**, Southern Federal University, Taganrog
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- P73. Natalia Menshikova**, Cherepovets State University, Cherepovets
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- P74. Lubov Gimadeeva**, Ural Federal University, Ekaterinburg
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- P75. Anton Turygin**, Ural Federal University, Ekaterinburg
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- P76. Andrei Ushakov**, Ural Federal University, Ekaterinburg
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- P77. Yulia Kuprina**, Southern Federal University, Rostov-on-Don
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- P78. Boris Loginov**, National Research University of Electronic Technology "MIET",
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Section 6. Ferroics

- P79. Igor Raevski**, Southern Federal University, Rostov-on-Don
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- P80. Svetlana Raevskaya**, Southern Federal University, Rostov-on-Don
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- P81. Valentin Osipov**, Herzen State Pedagogical University of Russia, Saint Petersburg
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- P82. Tatiana Petrova**, Southern Federal University, Rostov-on-Don
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- P83. Arkady Mandel**, Tomsk State University of Control Systems and Radioelectronics, Tomsk
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- P84. Evgeny Golubev**, Institute of Geology of Komi SC of Ural Branch of RAS, Syktyvkar
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- P85. Zhuang Yongyong**, Xi'an Jiaotong University, Xi'an, China
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- P86. Alma Zhakina**, Institute for organic synthesis and coal chemistry, Karaganda, Kazakhstan
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- P87. Alma Zhakina**, Institute for organic synthesis and coal chemistry, Karaganda, Kazakhstan
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- P88. Sergei Bedin**, Shubnikov Institute of Crystallography, Moscow
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- P89. Kristina Baklanova**, Tver State University, Tver
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- P90. Ekaterina Barabanova**, Tver State University, Tver
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- P91. Roman Gerasimov**, Southern Federal University, Rostov-on-Don
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- P92. Olga Makarova**, I.V. Tananaev Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials of the Kola Science Center RAS, Apatity
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- P93. Denis Alikin**, Ural Federal University, Ekaterinburg
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- P94. Artur Udalov**, Ural Federal University, Ekaterinburg
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- P95. Evgeny Vlasov**, Ural Federal University, Ekaterinburg
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- P96. Ekaterina Vaskina**, Ural Federal University, Ekaterinburg
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- P97. Maria Chuvakova**, Ural Federal University, Ekaterinburg
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- P98. Yuriy Vysokikh**, National Research University of Electronic Technology, Moscow
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- P99. Galina Akbaeva**, Southern Federal University, Rostov-on-Don
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- P100. Alexander Skrylyov**, Southern Federal University, Rostov-on-Don
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- P101. Evgeny Sitalo**, Southern Federal University, Rostov-on-Don
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- P102. Boris Khannanov**, A.F. Ioffe Physical Technical Institute RAS, Saint Petersburg
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- P103. Alexander Rassadin**, Nizhny Novgorod Mathematical Society, Nizhny Novgorod
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- P104. Sergey Kharintsev**, *Institute of Physics, Kazan Federal University, Kazan*
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