

MSN-2023 program

August 27, Sunday

Time zone: GMT+5 (Moscow time +2 hours)

Youth Conference

“Functional Imaging of Nanomaterials”

11.00-17.00	<i>Registration, Kuibysheva str. 48, 7th floor</i>
10.00-12.00	<i>Visit to Ural Center for Shared Use “Modern Nanotechnology” UrFU, Kuibysheva str. 48, 2nd floor</i>
13.00	L1. Vladimir Shur, Ural Federal University, Ekaterinburg, Russia Physics and application of ferroelectric domains
13.40 online	L2. Igor Lubomirsky, Weizmann Institute of Science, Rehovot, Israel Basics of elastic domains
14.20	<i>Tea break</i>
14.40	L3. Galina Kurlyandskaya, Ural Federal University, Ekaterinburg, Russia Magnetic nanomaterials for biomedical sensoric: selected examples and requests
15.20 online	L4. Pavel Zelenovskii, Ural Federal University, Ekaterinburg, Russia, University of Aveiro, Aveiro, Portugal Introduction to SAXS (Small-Angle X-ray Scattering) characterization of nanomaterials
16.15-18.00	<i>Excursion</i>
18.30-20.00	<i>Welcome party</i> <i>Onegin restaurant, Rozy Luxemburg str. 49, 15th floor</i>

August 28, Monday

Time zone: GMT+5 (Moscow time +2 hours)

08.30	Registration, Kuibysheva str. 48, 7th floor
09.00	Opening, Kuibysheva str. 48, 7th floor
	Session 1. Micro- and nano-domain engineering I Chair: Lushnikov Sergey
09.30	I1. Shur Vladimir , <i>Ural Federal University, Ekaterinburg, Russia</i> Shape and orientation of the domain walls in uniaxial ferroelectrics
10.00	I2. Kudryashov Sergey , <i>Lebedev Physical Institute, Moscow, Russia</i> New quantum technologies of ultrashort-pulse laser nanoinscription in bulk dielectrics
10.30	O1. Pamyatnykh Sergey , <i>Ural Federal University, Ekaterinburg, Russia</i> Directional motion of domain walls in iron garnet crystals
11.00 online	I3. Mishina Elena , <i>RTU MIREA, Moscow, Russia</i> Ferroics in strong THz fields
11.15	Tea break
	Session 2. Fundamentals of ferroelectric and magnetic materials I Chair: Kudryashov Sergey
11.30	I4. Lushnikov Sergey , <i>Ioffe Institute RAS, St. Petersburg, Russia</i> Soft mode “puzzle” in relaxor ferroelectrics
12.00	I5. Nosov Aleksandr , <i>M.N.Mikheev Institute of Metal Physics of Ural Branch of Russian Academy of Sciences, Ekaterinburg, Russia</i> Investigations of magnetic thin film nanostructures in the IMP UB RAS
12.30 online	I6. Lubomirsky Igor , <i>Weizmann Institute of Science, Rehovot, Israel</i> On the origin of non-classical electrostriction in ion conductors
13.00	Group photo and lunch Onegin restaurant, Rozy Luxemburg str. 49, 15th floor
	Session 3. Fundamentals of ferroelectric and magnetic materials II Chair: Shur Vladimir
14.15	I7. Yermakov Anatoly , <i>M.N.Mikheev Institute of Metal Physics of Ural Branch of Russian Academy of Sciences, Ekaterinburg, Russia</i> Nanocrystalline state and nanomaterials. The state-of-the-art - advances and challenges
14.45	O2. Margolin Ilya , <i>Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Structural and ferroelectric properties of hafnia in presence of an electric field: first-principle and experimental insight

15.00	O3. Ushakov Andrei , <i>Ural Federal University, Ekaterinburg, Russia</i> Shape evolution of the hysteresis loops in relaxor ferroelectric PMN-0.28PT
15.15 online	O4. Zaleskii Viacheslav , <i>Ioffe Institute RAS, St. Petersburg, Russia</i> Study of dielectric and polarization responses in relaxor ferroelectrics $PbB'B''O_3$ ($B'=Fe, Ni, Co$; $B''=Nb, Ta$) single crystals
15.30	O5. Moskvina Alexander , <i>Ural Federal University, Ekaterinburg, Russia</i> Jahn-Teller magnets with charge transfer
15.45 online	O6. Evseev Kirill , <i>Kazan Federal University, Kazan, Russia</i> Ab initio characterization of magnetoelectric coupling in ferromagnet/ferroelectric heterostructures
16.00	<i>Tea break</i>
	Session 4. Fundamentals of ferroelectric and magnetic materials III Chair: Moskvina Alexander
16.15	O8. Zubarev Andrei , <i>Ural Federal University, Ekaterinburg, Russia</i> Dynamic susceptibility of ferrogels
16.45 online	O9. Yudin Petr , <i>Institute of Physics of the Czech Academy of Sciences, Prague, Czech Republic</i> Theory of localized shear-thickness resonances in quartz microbalance sensor
17.15 online	O7. Nasedkin Andrei , <i>Southern Federal University, Rostov-on-Don, Russia</i> About determination of effective coupled temperature coefficients of nanostructured pyroelectric composites by effective moduli and finite element methods
17.30	O8. Bystrov Vladimir , <i>Institute of Mathematical Problems of Biology RAS, Pushchino, Russia</i> Properties of Hydroxyapatite with various substitutions
17.45 - 18.30	Short oral talks Chair: Andrei Akhmatkhanov
18.30 - 20.00	Poster session, Kuibysheva str. 48, 5 th floor
18.30 - 20.00	Online poster session

August 29, Tuesday

Time zone: GMT+5 (Moscow time +2 hours)

	Session 5. Characterization of micro- and nano-materials I Chair: Krylov Alexander
09.00	O9. Kamanina Natalia , <i>Vavilov State Optical Institute, St. Petersburg, Russia</i> Characterization of the polyimide doped with carbon-based nanostructures
09.15	O10. Sosunov Aleksei , <i>Perm State University, Perm, Russia</i> The impact of various factors on the surface of X-cut lithium niobate and properties of proton-exchange waveguides
09.30	O11. Shandarov Stanislav , <i>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> Degenerate anisotropic Bragg diffraction on the regular domain structure in lithium tantalate crystal
09.45 online	O12. Krylova Svetlana , <i>Kirensky Institute of Physics FRC KSC SB RAS, Krasnoyarsk, Russia</i> Lattice dynamics of the $\text{BaMg}_{1/3}\text{Ta}_{2/3}\text{O}_3$ complex perovskite
10.00	O13. Savchenkov Evgeny , <i>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> Non-steady-state photo-EMF for studying the effect of photoinduced conductivity in a periodically poled 5% $\text{MgO}:\text{LiNbO}_3$ crystal
10.15 online	O14. Avakyan Leon , <i>Southern Federal University, Rostov-on-Don, Russia</i> Atomic structure at middle range order of $\text{La}_2\text{O}_3\text{-Nb}_2\text{O}_5\text{-B}_2\text{O}_3$ glass
10.30 online	O15. Volkov Dmitry , <i>Southern Federal University, Rostov-on-Don, Russia</i> Influence of raw material pretreatment methods on macro responses in $\text{BaTiO}_3\text{-BaZrO}_3$ solid solutions
10.45 online	O16. Lebedinskaya Alla , <i>Southern Federal University, Rostov-on-Don, Russia</i> Investigation of the oxygen vacancies distribution in non-stoichiometric PMN- based solid solutions
11.00	<i>Tea break</i>
11.15 online	I10. Bykov Victor , <i>NT-MDT SI, Moscow, Russia</i> Scanning probe microscopy and spectroscopy for investigations of structures and properties of nanostructures

	Session 6. Micro- and nano-domain engineering II Chair: Eiras Jose Antonio
11.45	I11. Akhmatkhanov Andrei , <i>Ural Federal University, Ekaterinburg, Russia</i> Current-limited domain wall motion during local switching in uniaxial ferroelectrics
12.15	O17. Kipenko Ilya , <i>Ural Federal University, Ekaterinburg, Russia</i> Controlled growth of 2D nanodomain structures during switching at elevated temperatures in CLN with dielectric layer
12.30	O18. Greshnyakov Evgeny , <i>Ural Federal University, Ekaterinburg, Russia</i> Domain growth in the bulk in lithium tantalate with charged domain wall
12.45	<i>Lunch</i> <i>Onegin restaurant, Rozy Luxemburg str. 49, 15th floor</i>
	Session 7. Micro- and nano-domain engineering III Chair: Nosov Alexander
14.00	O19. Kosobokov Mikhail , <i>Ural Federal University, Ekaterinburg, Russia</i> Hierarchical nanopatterns inscribed by femtosecond laser pulses in lithium niobate
14.15	O20. Lisjikh Boris , <i>Ural Federal University, Ekaterinburg, Russia</i> Formation of ferroelectric domains in MgO-doped lithium niobate crystals by femtosecond laser irradiation
14.30	O21. Mekhonoshin Dmitry , <i>Ural Federal University, Ekaterinburg, Russia</i> Self-organization of magnetic domain structures under the action of an alternating magnetic field
14.45	O22. Yuzhakov Vladimir , <i>Ural Federal University, Ekaterinburg, Russia</i> Field induced domain kinetics in calcium orthovanadate crystals with charged domain walls

	Session 8. Multiferroic and magnetic materials Chair: Chouprik Anastasia
15.00	I12. Eiras Jose Antonio , <i>São Carlos Federal University, São Carlos, Brazil</i> Room-temperature optical and magnetoelectric response in A and B site co-doped layer structured Aurivillius ceramics
15.30	I13. Gareeva Zukhra , <i>Institute of Molecule and Crystal Physics USC RAS, Russia</i> Novel multiferroics for Magneto Electric – Spin Orbit-like devices
16.00	<i>Tea break</i>
16.15	I14. Krylov Alexander , <i>Kirensky Institute of Physics FRC KSC SB RAS, Krasnoyarsk, Russia</i> Phase transitions in multiferroics ferrobates with huntite structure
16.45 online	I15. Pyatakov Alexander , <i>Moscow State University, Moscow, Russia</i> Multiferroic ordering and cross coupling effects in 2D magnetic materials
17.15	O23. Lente Manuel Henrique , <i>Federal University of São Paulo, São José dos Campos, Brazil</i> Characterization of the magnetoelectric coupling in (1-x) Pb (Zr,Ti)O ₃ -xPb(Fe _{1/2} Nb _{1/2})O ₃ ceramics
17.30	O24. Chuklanov Anton , <i>Zavoisky Physical-Technical Institute, Kazan, Russia</i> Thermal magnetization switching in rectangular submicron Ni particles on Lithium Triborate
17.45	O25. Moskalev Mikhail , <i>Ural Federal University, Ekaterinburg, Russia</i> Linking exchange bias with the formation of the antiferromagnetic phase in thin films with Cr-Mn
18.00 online	O26. Piyanzina Irina , <i>Kazan Federal University, Kazan, Russia</i> Using ferroelectrics to tune the electronic and magnetic properties of heterostructures
18.15	<i>End of sessions</i>
19.00	<i>Banquet</i> <i>Onegin restaurant, Rozy Luxemburg str. 49, 15th floor</i>

August 30, Wednesday

Time zone: GMT+5 (Moscow time +2 hours)

	Session 9. Ceramics, thin films and nanoparticles I Chair: Pugachev Alexey
09.00	I16. Mamin Rinat , <i>Zavoisky Physical-Technical Institute, Kazan, Russia</i> Investigations of high-conductivity interfaces of heterostructures ferroelectric/dielectric
09.30	I17. Vtyurin Aleksander , <i>Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russia</i> Low-temperature phase transitions in ANLT4.5 ceramics
10.00	I18. Chouprik Anastasia , <i>Moscow Institute of Physics and Technology, Dolgoprudny, Russia</i> Hafnium oxide films for the implementation of ferroelectric field effect transistors and ferroelectric tunnel junctions
10.30	O27. Abramov Alexander , <i>Ural Federal University, Ekaterinburg, Russia</i> Spatially-resolved study of the electronic transport and resistive switching in polycrystalline bismuth ferrite
10.45	O28. Kamashev Andrey , <i>Zavoisky Physical-Technical Institute, Kazan, Russia</i> Superconducting spin valve Fe1/Cu/Fe2/Cu/Pb on a piezoelectric substrate PMN-PT
11.00	<i>Tea break</i>
	Session 10. Ceramics, thin films and nanoparticles II Chair: Mamin Rinat
11.15	I19. Jin Li , <i>Xi'an Jiaotong University, Xi'an, China</i> Ultrahigh electrostrictive effect in Sm ³⁺ -doped Pb (Mg _{1/3} Nb _{2/3}) O ₃ -PbTiO ₃
11.45 online	I20. Politova Ekaterina , <i>N.N. Semenov Federal Research Center for Chemical Physics RAS, Moscow, Russia</i> Characterization of structure, microstructure and functional properties of modified lead-free perovskite ceramics
12.15	O29. Jing Ruiyi , <i>Xi'an Jiaotong University, Xi'an, China</i> Phase evolution and relaxor to ferroelectric phase transition boosting ultrahigh electrostrains in (1-x)(Bi _{1/2} Na _{1/2})TiO ₃ -x(Bi _{1/2} K _{1/2})TiO ₃ solid solutions
12.30	O30. Kiryakov Arseny , <i>Ural Federal University, Ekaterinburg, Russia</i> Luminescent MgAl ₂ O ₄ optical nanoceramics doped with carbon particles
12.45	<i>Lunch</i> <i>Onegin restaurant, Rozy Luxemburg str. 49, 15th floor</i>

Session 11. Ceramics, thin films and nanoparticles III Chair: Vtyurin Alexander	
14.00	I21. Pugachev Alexey , <i>Institute of Automatic and Electrometry RAS, Novosibirsk, Russia</i> Evolution of the dipole moment in crystals and films of strontium barium niobate
14.30 online	I22. Khanuja Manika , <i>Jamia Millia Islamia, Delhi, India</i> 2D Nanocomposite for the photocatalytic degradation of various pollutants: Textile dyes, Heavy metal ions, Antibiotics
15.00 online	I23. Zelenovskii Pavel , <i>University of Aveiro, Aveiro, Portugal</i> Exotic water structures and diffusion in peptide nanochannels
15.30	O31. Pronin Igor , <i>Ioffe Institute RAS, St. Petersburg, Russia</i> Crystallization and recrystallization of spherulite thin PZT films
15.45	O32. Salamatov Yuri , <i>Institute of Metal Physics UB RAS, Ekaterinburg, Russia</i> Synthesis of graphene on Ni and Al ₂ O ₃ nanoparticles by chemical vapor deposition
16.00	<i>Tea break</i>
16.15	O33. Alikin Denis , <i>Ural Federal University, Ekaterinburg, Russia</i> Unraveling the mechanism of two-dimensional peptide growth in humidity-induced solid-phase crystallization
16.30 online	O34. Chernozem Roman , <i>Tomsk Polytechnic University, Tomsk, Russia</i> Magnetolectric core-shell nanoparticles based on biocompatible MnFe ₂ O ₄ and Ba _{0.9} Ca _{0.1} Ti _{0.9} Zr _{0.1} O ₃ for biomedical applications
16.45	L5. Shur Vladimir , <i>Ural Federal University, Ekaterinburg, Russia</i> Center for Shared Use “Modern Nanotechnology”, BRICS Network Centre for Materials Science and Nanotechnology: State-of-the-art and future trends
17.00	L6. Shur Vladimir , <i>Ural Federal University, Ekaterinburg, Russia</i> Mad tea party
17.20	<i>Closing</i>

Short oral talks, August 28

- SO1/P2.** **Balayeva Vera**, *Saratov State University, Saratov, Russia*
Multiplexing in sandwich magnonic crystal/ferroelectric/ferromagnetic
- SO2/P3.** **Kalika Elizaveta**, *Moscow Institute of Physics and Technology, Moscow, Russia*
Effect of mechanical strain on ferroelectric and dielectric properties of HfO₂: theoretical study
- SO3/P5.** **Lobanov Nikita**, *Saratov State University, Saratov, Russia*
Formation of Bragg resonances in a multilayer structure of magnon crystals with different periods
- SO4/P32.** **Zhavoronkov Lev**, *Southern Federal University, Taganrog, Russia*
Fabrication and investigation of a Ti/TiO_x/W memristive crossbar array artificial synapses for promising neuroelectronics elements
- SO5/P33.** **Alikin Yuri**, *Ural Federal University, Ekaterinburg, Russia*
Investigation of the kinetics of the domain structure of ferroelectrics during polarization switching in a nonhomogeneous electric field
- SO6/P36.** **Pashnina Elena**, *Ural Federal University, Ekaterinburg, Russia*
Formation of self-assembled 0D and 1D nanodomain structures under the action of ion-beam irradiation in CLN
- SO7/P37.** **Saveliev Evgeny**, *Ural Federal University, Ekaterinburg, Russia*
Formation of a regular domain structure and wavelength conversion in lithium niobate modified by the proton exchange
- SO8/P57.** **Chirkova Diana**, *Federal Research Centre the Southern Scientific Centre of the RAS, Rostov-on-Don, Russia*
The influence of doping by tin (II) cations on antimony sulphoiodide longitudinal piezo module values
- SO9/P60.** **Gimadeeva Lyubov**, *Ural Federal University, Ekaterinburg, Russia*
Evolution of the domain structure during polarization reversal and phase transition in BaTiO₃ ferroelectric ceramics
- SO10/P73.** **Safina Violetta**, *Ural Federal University, Ekaterinburg, Russia*
Size effect of the piezoelectric properties in thin films of BiFeO₃

Poster session, August 28

Section 1. Fundamentals of ferroelectric and magnetic materials

- P1. Bakmaev Abumuslim**, *Dagestan Federal Research Center RAS, Makhachkala, Russia*
Thermophysical properties of relaxor ceramics $\text{PbFe}_{0.5}\text{Nb}_{0.5}\text{O}_3$
- P2. Balayeva Vera**, *Saratov State University, Saratov, Russia*
Multiplexing in sandwich magnonic crystal/ferroelectric/ferromagnetic
- P3. Kalika Elizaveta**, *Moscow Institute of Physics and Technology, Moscow, Russia*
Effect of mechanical strain on ferroelectric and dielectric properties of HfO_2 : theoretical study
- P4. Kudyukov Egor**, *Ural Federal University, Ekaterinburg, Russia*
Magnetic structure and macroscopic magnetic properties of R-Co thin films
- P5. Lobanov Nikita**, *Saratov State University, Saratov, Russia*
Formation of Bragg resonances in a multilayer structure of magnon crystals with different periods
- P6. Maltseva Viktoria**, *Ural Federal University, Ekaterinburg, Russia*
High-coercivity state in nanostructured alloys of the Sm-Co system
- P7. Nuzhin Stepan**, *Ural Federal University, Ekaterinburg, Russia*
Simulation of the charged spin-triplet boson system on the 2D square lattice by classical Monte Carlo Method
- P8. Panov Yury**, *Ural Federal University, Ekaterinburg, Russia*
Correlation functions and properties of local distributions of frustrated phases in the ground state of a dilute Ising chain in a magnetic field
- P9. Sosunov Aleksei**, *Perm State University, Perm, Russia*
Structure and properties of Co-C nanocomposites
- P10. Teplov Valentin**, *Institute of Metal Physics UB RAS, Ekaterinburg, Russia*
The modelling of skyrmions in ferri- and ferromagnetic metallic nanostructures
- P11. Ulitko Vasilii**, *Ural Federal University, Ekaterinburg, Russia*
Monte Carlo algorithm with charge conservation for simulation of a spin-pseudospin model
- P12. Urzhumtsev Andrey**, *Ural Federal University, Ekaterinburg, Russia*
Influence of microstructure features on the mechanism of high-coercive state in Nd-Fe-B type permanent magnets
- P13. Yudin Andrey**, *Platov South-Russian State Polytechnic University, Rostov-on-Don, Russia*
Description of piezocomposite dielectric spectra using a new Havriliak-Negami equation-based model

Section 2. Characterization of micro- and nano-materials

- P14. Avakyan Artyom**, *South Federal University Taganrog, Russia*
Simulation of vacancy distribution in TiO₂ nanodots for memristive neuromorphic structure design
- P15. Chuklanov Anton**, *Zavoisky Physical-Technical Institute, Kazan, Russia*
Using Atomic-Force Microscope for isolation a single upconversion luminescent nanoparticle
- P16. Dunaevskiy Mikhail**, *Ioffe Institute RAS, St. Petersburg, Russia*
Triboelectric current generation by friction of AlIBV and Si surfaces
- P17. Kudryavtseva Elena**, *Zavoisky Physical-Technical Institute, Kazan, Russia*
Self-assembly of the dipeptide _L-Alanyl-_L-Phenylalanine under the action of methanol vapor with the formation of micro- and nanostructures
- P18. Kuznetsov Dmitry**, *Ural Federal University, Ekaterinburg, Russia*
Hydrophilic properties of the aluminum surfaces structured by femtosecond laser irradiation
- P19. Lente Manuel Henrique**, *Federal University of São Paulo, São José dos Campos, Brazil*
Growth and characterization of physical properties of photovoltaic (K,Ba)(Ni,Nb)O₃ single crystals
- P20. Levkevich Ekaterina**, *Shubnikov Institute of Crystallography, Moscow, Russia*
Characterization of single-walled carbon nanotubes by Raman spectroscopy
- P21. Levkevich Ekaterina**, *Shubnikov Institute of Crystallography, Moscow, Russia*
Characterization of carbon materials by Raman spectroscopy
- P22. Melnikov Semen**, *Ural Federal University, Ekaterinburg, Russia*
Overview and verification of the AFM cantilever stiffness calibration techniques
- P23. Merencova Kristina**, *Institute of Metal Physics UB RAS, Ekaterinburg, Russia*
Morphological and functional changes in Fe₂O₃ films under a thermal treatment at different temperatures
- P24. Merencova Kristina**, *Institute of Metal Physics UB RAS, Ekaterinburg, Russia*
Effect of heat treatment on the phase composition of α-Fe₂O₃ thin films: analysis by Raman spectroscopy
- P25. Nasedkin Andrey**, *Southern Federal University, Rostov-on-Don, Russia*
Numerical analysis of plano-concave circular transducer made of non-uniformly polarized porous piezoceramics
- P26. Nikiforov Alexey**, *Ural Federal University, Ekaterinburg, Russia*
Raman spectra interpretation for Li₄Ti₅O₁₂ with a spinel structure
- P27. Saenko Aleksandr**, *Southern Federal University, Taganrog, Russia*
Investigation of resistive switching of transparent memristor structures based on TiO₂ for neuromorphic systems

- P28. Sergeeva Olga**, *Tver State University, Tver, Russia*
New functional materials based on aluminum and gallium nitride polar structures for IR arrays
- P29. Shvetsov Igor**, *Southern Federal University, Rostov-on-Don, Russia*
Piezoelectric hysteresis and relaxation process in ferroelectric ceramics in a weak electric field
- P30. Shvetsova Natalia**, *Southern Federal University, Rostov-on-Don, Russia*
Electromechanical and ferroelectric hysteresis in dense and porous PZT-type piezoceramics
- P31. Ugryumov Ivan**, *Southern Federal University, Taganrog, Russia*
Simulation of resistive switching in nanocrystalline ZnO films for neuromorphic systems of artificial intelligence
- P32. Zhavoronkov Lev**, *Southern Federal University, Taganrog, Russia*
Fabrication and investigation of a Ti/TiO_x/W memristive crossbar array artificial synapses for promising neuroelectronics elements

Section 3. Micro- and nano-domain engineering

- P33. Alikin Yuri**, *Ural Federal University, Ekaterinburg, Russia*
Investigation of the kinetics of the domain structure of ferroelectrics during polarization switching in a nonhomogeneous electric field
- P34. Chuvakova Maria**, *Ural Federal University, Ekaterinburg, Russia*
Domain kinetics and periodical poling in single crystals of titanyl-phosphate family for light frequency conversion
- P35. Kholodenko Maria**, *Ural Federal University, Ekaterinburg, Russia*
Formation of domain structure during focused ion beam irradiation in SBN single crystals
- P36. Pashnina Elena**, *Ural Federal University, Ekaterinburg, Russia*
Formation of self-assembled 0D and 1D nanodomain structures under the action of ion-beam irradiation in CLN
- P37. Saveliev Evgeny**, *Ural Federal University, Ekaterinburg, Russia*
Formation of a regular domain structure and wavelength conversion in lithium niobate modified by the proton exchange
- P38. Shikhova Vera**, *Ural Federal University, Ekaterinburg, Russia*
Study of direct domain growth during local polarization reversal in strontium-barium niobate single crystals
- P39. Turygin Anton**, *Ural Federal University, Ekaterinburg, Russia*
Formation of quasi-regular domain arrays in triglycine sulphate single crystal during scanning by biased SPM tip

Section 4. Multiferroic and magnetic materials

- P40. Bessonov Vladimir**, *Institute of Metal Physics UB of RAS, Ekaterinburg, Russia*
Magnetization reversal in thin-film nanostructures under the action of DC current
- P41. Glazunova Ekaterina**, *Southern Federal University, Rostov-on-Don, Russia*
Neutron diffraction studies of system ceramics $(1-x)\text{PbFe}_{1/2}\text{Nb}_{1/2}\text{O}_3$ -
 $x\text{PbFe}_{2/3}\text{W}_{1/3}\text{O}_3$
- P42. Golubiatnikova Aleksandra**, *Ural Federal University, Ekaterinburg, Russia*
Influence of low-melting additive infiltration on the magnetic hysteresis properties of a nanocrystalline alloy based on the compound $\text{Nd}_2\text{Fe}_{14}\text{B}$
- P43. Kalinin Maksim**, *Ural Federal University, Ekaterinburg, Russia*
Simulation and optimization of composite multiferroic with nanostructured magnetic layer
- P44. Kolosov Stanislav**, *Southern Federal University, Rostov-on-Don, Russia*
The effect of Ba-doping on the relaxor properties of multiferroic $\text{PbFe}_{1/2}\text{Nb}_{1/2}\text{O}_3$ ceramics
- P45. Mamin Rinat**, *Zavoisky Physical-Technical Institute, Kazan, Russia*
Magnetoelectric properties of skyrmion-like structures
- P46. Moskalev Mikhail**, *Ural Federal University, Ekaterinburg, Russia*
Interplay between structural transformations and diffusion in thin films with antiferromagnetic Ni-Mn
- P47. Nazarenko Alexander**, *Southern Scientific Centre RAS, Rostov-on-Don, Russia*
The preparation and study of the multiferroic materials based on BiFeO_3 - YMnO_3 solid solutions
- P48. Raevski Igor**, *Southern Federal University, Rostov-on-Don, Russia*
Mössbauer and dielectric studies of perovskite $\text{Bi}_{1-x}\text{Nd}_x\text{Fe}_{(1-z)/2}\text{Mn}_{(1-z)/2}\text{In}_z\text{O}_3$ solid solution ceramics fabricated by a high-pressure synthesis
- P49. Shalaginov Arkady**, *Ural Federal University, Ekaterinburg, Russia*
Magnetic properties of sintered and rapidly quenched $\text{Sm}_{10,5}\text{Fe}_{89,5-x}\text{V}_x$ alloys ($x = 10,0; 15,4$) with ThMn_{12} type structure
- P50. Stepanova Ksenia**, *Ural Federal University, Ekaterinburg, Russia*
The magnetic properties of toroidal samples produced by selective laser melting from iron powder
- P51. Turygin Anton**, *Ural Federal University, Ekaterinburg, Russia*
Revealing the origin of dielectric dispersion in multiferroic LuFeO_3 doped by Sc
- P52. Vasinovich Evgenii**, *Ural Federal University, Ekaterinburg, Russia*
Simple spin-reorientation model in rare-earth orthoferrites and orthochromites

Section 5. Ceramics and thin films

- P53. Andryushin Konstantin**, *Southern Federal University, Rostov-on-Don, Russia*
Piezoceramic lithium metaniobate: possibilities for improving mechanical properties
- P54. Andryushin Konstantin**, *Southern Federal University, Rostov-on-Don, Russia*
Features of obtaining lead-free ferro-piezoceramics based on sodium niobate
- P55. Astafev Pavel**, *Southern Federal University, Rostov-on-Don, Russia*
Resonance response of antiferroelectrics with a low content of ferroelectric components in the microwave range
- P56. Chibirev Alexei**, *Zavoisky Physical-Technical Institute, Kazan, Russia*
Effect of light on the resistance of the $\text{LaMnO}_3/\text{Bi}_4\text{Ti}_3\text{O}_{12}/\text{Ba}_{0.4}\text{Sr}_{0.6}\text{TiO}_3/\text{MgO}$ and $\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3/\text{LaMnO}_3/\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3/\text{MgO}$ heterostructures
- P57. Chirkova Diana**, *Federal Research Centre the Southern Scientific Centre of the RAS, Rostov-on-Don, Russia*
The influence of doping by tin (II) cations on antimony sulphoiodide longitudinal piezo module values
- P58. Gardt Viktor**, *Ural Federal University, Ekaterinburg, Russia*
Composite effect of conductivity in systems $\text{MeWO}_4\text{-Al}_2\text{O}_3$ (Me – Ca, Sr)
- P59. Gardt Viktor**, *Ural Federal University, Ekaterinburg, Russia*
Oxygen-ion composites $\text{MWO}_4\text{-SiO}_2$ (M – Sr, Ba)
- P60. Gimadeeva Lyubov**, *Ural Federal University, Ekaterinburg, Russia*
Evolution of the domain structure during polarization reversal and phase transition in BaTiO_3 ferroelectric ceramics
- P61. Kamashev Andrey**, *Zavoisky Physical-Technical Institute, Kazan, Russia*
Record value of the operating temperature zone of a superconducting spin-valve with two ferromagnetic Heusler alloy layers
- P62. Lebedinskaya Alla**, *Southern Federal University, Rostov-on-Don, Russia*
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- P63. Makinyan Norayr**, *Southern Federal University, Rostov-on-Don, Russia*
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- P64. Makinyan Norayr**, *Southern Federal University, Rostov-on-Don, Russia*
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- P65. Matyash Yana**, *Southern Scientific Center RAS, Rostov-on-Don, Russia*
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- P66. Matyash Yana**, *Southern Scientific Center RAS, Rostov-on-Don, Russia*
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- P67. Moysa Maxim**, *Southern Federal University, Rostov-on-Don, Russia*
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- P68. Nazarenko Alexander**, *Southern Scientific Centre RAS, Rostov-on-Don, Russia*
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- P69. Alikin Denis**, *Ural Federal University, Ekaterinburg, Russia*
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- P70. Pavlenko Anatoly**, *Southern Scientific Centre RAS, Rostov-on-Don, Russia*
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- P71. Pavlenko Anatoly**, *Southern Scientific Centre RAS, Rostov-on-Don, Russia*
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- P72. Raevski Igor**, *Southern Federal University, Rostov-on-Don, Russia*
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- P73. Safina Violetta**, *Ural Federal University, Ekaterinburg, Russia*
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- P74. Senkevich Stanislav**, *Ioffe Institute RAS, St. Petersburg, Russia*
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- P75. Shaimardanova Lilia**, *Ural Federal University, Ekaterinburg, Russia*
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- P76. Shvetsova Natalia**, *Southern Federal University, Rostov-on-Don, Russia*
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- P77. Tushkova Anastasia**, *Ural Federal University, Ekaterinburg, Russia*
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- P78. Valeeva Alsu**, *Ioffe Institute RAS, St. Petersburg, Russia*
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- P79. Validov Aidar**, *Zavoisky Physical-Technical Institute, Kazan, Russia*
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- P80. Zhidel Karina**, *Southern Federal University, Rostov-on-Don, Russia*
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P81. Zhidel Karina, *Southern Federal University, Rostov-on-Don, Russia*

Optical properties of the BNFNO films depending on temperature

P82. Zhu Quanyao, *Wuhan University of Technology, Wuhan, China*

Research on the $KV_3O_8 \cdot 0.75H_2O$ -Methyl cellulose flexible nanocomposite films and electrochromic property

Section 6. Bioinspired materials

P83. Bystrov Vladimir, *Institute of Mathematical Problems of Biology RAS,*

Pushchino, Russia

Ferroelectric and photoelectronic properties of peptide nanotubes and nanostructures based on various amino acids

P84. Semiletova Larisa, *Ural Federal University, Ekaterinburg, Russia*

Kinetics of the humidity-induced solid-phase crystallization in the diphenylalanine thin films

Section 7. Application of ferroic materials

P85. Dzyuba Dmitry, *Southern Federal University, Taganrog, Russia*

Formation of $BaTiO_3$ thin films for energy-efficient memristive applications

P86. Marakhovskiy Mikhail, *Southern Federal University, Rostov-on-Don, Russia*

Technological optimization of the BZN-based ceramics preparation