

FUNCTIONAL AND NANOSTRUCTURED MATERIALS

1. Aleksiyayenak Yu. (FLNP JINR, Russian Federation)
Influence of neutron irradiation on the elemental content and optical properties of the CaF_2 and BaF_2 crystals.
2. Khongorzul B. (Institute of Physics and Technology, Mongolian Academy of Science, Mongolia)
Theoretical investigation of structure and magnetic property of Ni substituted MgFe_2O_4 .
3. Belozeroва N. (FLNP JINR, Russian Federation)
High pressure effect on internal structure and atomic dynamics of pharmaceutical compounds.
4. Chebyshev K. (Donetsk National University, Ukraine)
Neutron diffraction investigation of pressure dependence of $\text{Nd}_5\text{Mo}_3\text{O}_{16+\delta}$ crystal structure.
5. Craus M. (FLNP JINR, Russian Federation)
Magnetic and crystalline structure of some doped with Cr manganites.
6. Craus M. (FLNP JINR, Russian Federation)
Correlation between the Cr concentration and magnetic nanostructure parameters for $\text{La}_{0.54}\text{Ho}_{0.11}\text{Sr}_{0.35}\text{Mn}_{1-x}\text{Cr}_x\text{O}_3$ manganites.
7. Fedoseev M. (NRC «Kurchatov Institute» – CRISM «Prometey», Russian Federation)
Study of sigma phase emergence in stainless steel welds.
8. Genov I. (Institute of Electrochemistry and Energy System-Bulgarian Academy of Sciences, Bulgaria / FLNP JINR, Russian Federation)
Structural properties of bifunctional catalysts for zinc-air batteries.
9. Hashimov R. (Institute of Physics, ANAS, Azerbaijan)
Structural analysis of $\text{La}_{0.78}\text{Ba}_{0.22}\text{MnO}_3$ by X-ray diffraction.
10. Hristea G. (INCDIE ICPE CA, Romania)
Inherent impurities in graphene-like materials.
11. Kalanda N. (Scientific-Practical Materials Research Centre of NAS of Belarus, Belarus)
Effect of oxygen nonstoichiometry on the magnetic properties of $\text{La}_{0.7}\text{Sr}_{0.3}\text{Mn}_{0.95}\text{Fe}_{0.05}\text{O}_{3-\delta}$ manganites.

12. Kirillov A. (FLNP JINR, Russian Federation)
Permeability of a coal seam with respect to fractal features of pore space of fossil coals.
13. Kosiachkin Y. (FLNP JINR, Russian Federation)
Neutron and x-ray reflectometry studies of planar interfaces for lithium power sources.
14. Thao T.P. Le (The University of Danang, University of Science and Education, Vietnam)
High pressure-enhanced magnetic ordering and magnetostructural coupling in geometrically frustrated spinel Mn_3O_4 .
15. Lis O. (FLNP JINR, Russian Federation)
The pressure effect on the crystal and magnetic structure of $ScMnO_3$.
16. Nagorna T. (FLNP JINR, Russian Federation)
Preliminary studies on magnetic and non-magnetic core silica gels by SAXS, SANS, ESR, and VSM methods.
17. Pernikov M. (University of Chemical Technology and Metallurgy, Bulgaria)
Spectroscopic and neutron diffraction investigations on glasses and glass-ceramics in the $Na_2O/BaO/TiO_2/B_2O_3/SiO_2/Al_2O_3$ system.
18. Petrov A. (Scientific-Practical Materials Research Centre of NAS of Belarus, Belarus)
Crystal and magnetic structures of $Sr_2FeMoO_{6-\delta}$ at high pressure.
19. Popov E. (FLNP JINR, Russian Federation)
Investigation of phase transitions in sintered $W-6wt.\%B_4C-2wt.\%TiC-1wt.\%C$ alloy irradiated by He ions.
20. Rutkauskas A. (FLNP JINR, Russian Federation)
Crystal and magnetic structure of half-Heusler compounds $MnNi_{0.9}M_{0.1}Sb$ ($M = Ti, V, Cr, Fe, Co$) at low temperatures.
21. Rzayev R. (Azerbaijan State Pedagogical University, Azerbaijan)
Thermophysical properties of Y_2O_3 nanoparticles under the influence of high-intensity fast neutrons.
22. Skanchenko D. (PNPI, Russian Federation)
Neutron diffraction studies of compounds based on $MnGe$ under high pressure at low temperatures in high magnetic fields.
23. Tomchuk O. (Institute of Environmental Geochemistry, National Academy of Sciences of Ukraine, Ukraine)

Structural organization of nanodispersed aluminic material synthesized in a plasma reactor.

24. Tomchuk O. (Institute of Environmental Geochemistry, National Academy of Sciences of Ukraine, Ukraine)

Structural features of liquid crystalline suspensions of diamond nanoparticles by neutron scattering.

25. Zakharova A. (FLNP JINR, Russian Federation)

Electrical properties of a hydrated contact of different-sized YSZ –particles.

26. Yarmolich M. (Scientific-Practical Materials Research Centre of NAS of Belarus, Belarus)

Obtaining of nanosized powders of the Sr-Ba-Fe-Mo-O system by sol-gel technique.

DEVELOPMENT OF NEUTRON SCATTERING TECHNIQUES AND INSTRUMENTS

27. Altynbaev E. (PNPI, Russian Federation)

Development of linear position-sensitive neutron detector for modern neutron sources.

28. Glushkova T. (PNPI, Russian Federation)

Prototypes of neutron scintillation detectors based on ZnS(Ag)/LiF and SiPM.

29. Kirilov A. (FLNP JINR, Russian Federation)

Instruments control software at the IBR-2 reactor: experience and prospects.

30. Kolesnikov A. (FLNP JINR, Russian Federation)

The preparation of thin film coating converter $^{10}\text{B}_4\text{C}$ for slow neutron detectors.

31. Kruglov A. (FLNP JINR, Russian Federation)

Results of modernization of the FSS neutron Fourier diffractometer at the IBR-2 reactor.

32. Kurilkin A. (FLNP JINR, Russian Federation)

GEANT4 simulation of a thermal neutron detector with a boron converter.

33. Litvin V. (INR RAS, Russian Federation)

SANS research of heat-resistant nonmagnetic alloys at neutron reflectometr - SANS instrument «GORIZONT» in INR RAS.

34. Paveleva A. (PNPI, Russian Federation)

Variations of piston-cylinder cells for neutron scattering under high pressure.

35. Remizov M. (PNPI, Russian Federation)

Physical model of the in-beam spectrometer on PIK reactor.

36. Sikolenko V. (FLNP JINR, Russian Federation)

Upgrade plans for Epsilon diffractometer.

POSTER SESSION II (Wednesday, April 27, 2022)

SOFT CONDENSED MATTER (BIOLOGICAL NANOSYSTEMS, LIPID MEMBRANES, POLYMERS)

1. Artykulnyi O. (FLNP JINR, Russian Federation)

Structural studies of surfactant-polymer associations in bulk and at interfaces.

2. Avdeev M. (MSU, Russian Federation)

Synthesis of polyacrylamide gel nanolayers on oxidized silicon surface for use as smart coatings with controlled release of antiseptics.

3. BalasoIU M. (FLNP JINR, Russian Federation)

Investigation of several mollusk shells from Danube Delta and Constanta Black sea shore by means of small-angle neutron scattering.

4. BalasoIU M. (FLNP JINR, Russian Federation)

Small-angle neutron scattering investigation of ferrofluids with magnetite nanoparticles coated with aspartic-acid, starch and hyaluronic acid.

5. BalasoIU M. (FLNP JINR, Russian Federation)

Structural investigation of magnetite and cobalt ferrite mesoporous nanoparticles coated with amino acids as stabilizing accents.

6. Baranova I. (Institute of Physics, ELI Beamlines, Academy of Sciences of the Czech Republic, Czechia)

Crystallographic and small angle scattering studies of hemoglobin crystal nucleation and cluster formation.

7. Burgakov V. (PNPI, Russian Federation)

Chromatin structure in the tumor cells with radioresistant phenotype.

8. Kurakin S. (FLNP JINR, Russian Federation)

Characterization of cation-zwitterionic lipid interactions: small angle neutron/X-ray scattering and densitometry study.

9. Makhaldiani N. (LIT JINR, Russian Federation)

Methods of fundamental physics and applied mathematics, there is no silver lining or how to treat chronic diseases with Covid.

10. Kosiachkin Y. (FLNP JINR, Russian Federation)

Development and operation tests of the temperature/humidity sample cell for neutron reflectometry.

11. Kuzmenko M. (FLNP JINR, Russian Federation)

Structuring of trisiloxanes-based superspreaders at interface and in bulk by neutron scattering.

12. Iashina E. (SPSU, PNPI NRC KI, Russian Federation)

Model of large scale chromatin organisation in biological cell nuclei based on SANS data.

13. Kuklina D. (MIPT, Russian Federation)

Stability of trimers of dimers of NpSRII/NpHtrII complex at low salt concentration.

14. Makarova A. (MSU, Russian Federation)

Viscoelastic properties and structure of dual networks of polymer and micellar chains.

15. Ospennikov A. (MSU, Russian Federation)

Study of the effect of a water-soluble monomer on micelles of surfactants for micellar polymerization problems.

16. Ospennikov A. (MSU, Russian Federation)

Structure, synergistic enhancement of viscoelastic properties and responsiveness to hydrocarbons of a new mixed viscoelastic surfactant system.

17. Pavlova A. (PNPI NRC “Kurchatov Institute”, Russian Federation)

Novel resorcinol-formaldehyde aerogels: synthesis, structure and fractal properties.

18. Slavkova Z. (G. Nadjakov Institute of Solid State Physics Bulgarian Academy of Sciences, Bulgaria)

Interaction of N,N'-disubstituted benzimidazole-2-thione derivatives containing vanilloid-like fragments with model phospholipid membranes.

19. Tropin T. (FLNP JINR, Russian Federation)

On the temperature dependence of the thickness and structure of C₇₀/polystyrene thin films.

20. Verlov N. (PNPI NRC “Kurchatov Institute”, Russian Federation)

Chromatin structure in the tumor cells with radioresistant phenotype.

21. Shnyrkov O. (PNPI, Russian Federation)

Fractal characteristics of coniferous and deciduous trees.

MAGNETIC NANOMATERIALS

22. Antropov N. (Institute of Metal Physics, Russian Federation)
Tunable spin-flop transition in artificial ferrimagnets.
23. Darziyeva T. (Baku State University, Azerbaijan)
Effect of high temperatures on the magnetic properties of Fe_3O_4 nanoparticles.
24. Karpets M. (The Institute of Experimental Physics of the Slovak Academy of Sciences (IEP SAS) in Košice (Department of Magnetism)/The Faculty of Electrical Engineering and Informatics of the Technical University of Košice (Department of Physics), Slovakia)
Self-assembled particle layering induced by electric field in transformer oil-based ferrofluid by neutron reflectometry.
25. Kolupaev E. (MSU / FLNP JINR, Russian Federation)
Absorption and scattering of neutrons in a resonator structure.
26. Kozhevnikov S. (FLNP JINR, Russian Federation)
Angular divergence of neutron microbeams from planar waveguides.
27. Makarova M. (Institute of Metal Physics, Russian Federation)
Magnetic structure of Dy-Co near the compensation temperature.
28. Nagornyi A. (Institute for Environment Geochemistry of the National Academy of Sciences of Ukraine, Ukraine / FLNP JINR, Russian Federation)
Interaction of aggregates in ferrofluids according to small-angle scattering data.
29. Nikova E. (IMP UB RAS, Russian Federation)
Investigation of the Fe-Cr superlattice with non-collinear magnetic ordering.
30. Yakunina E. (IMP UB RAS, Russian Federation)
Structural and magnetic characterization of Fe/MgO/Gd nanosystems.

NEUTRON IMAGING AND CULTURAL HERITAGE

31. Zel I. (FLNP JINR, Russian Federation)
Simple method for correction of center of rotation in neutron tomography.
32. Zhomartova A. (FLNP JINR, Russian Federation)
Study of cultural heritage objects from the ancient Turkic cult-memorial complex of East Kazakhstan with non - destructive neutron methods.

APPLICATION OF COMPLEMENTARY TECHNIQUES

33. Dashdemirov A. (Azerbaijan State Pedagogical University, Azerbaijan)
Photoconductivity of $Ge_{1-x}Nd_xS$ at high temperatures.
34. Didenko E. (JINR, Russian Federation)
Research of electric properties of hydratable crystal $MnSe-CuInSe_2$ promising for using in renewable energy.
35. Harutyunyan V. (A. Alikhanyan National Laboratory, Armenia)
Radiation resistance of thermoregulating coatings irradiated using IBR-2.
36. Ivanshina O. (FLNP JINR, Russian Federation)
Thermal analysis and synthesis of new materials in FLNP JINR.
37. Nabiyeva A. (Institute of Physics ANAS, Azerbaijan)
Thermal properties of the $La_{0.73}Ba_{0.27}MnO_3$ at high temperature.
38. Kazantsev A. (MIPT, Russian Federation)
New program in Wolfram Mathematica: calculate peaks easily.
39. Soran M.L. (National Institute for Research and Development of Isotopic and Molecular Technologies, Romania)
*Evaluation of copper salts consequence on *Triticum aestivum*.*