

4. EXPERIMENTAL REPORTS

4.1. CONDENSED MATTER PHYSICS

Diffraction

Residual Stress Evaluation in Core Component of a Nuclear Reactor

G.Bokuchava, V.Sumin, A.Tamonov

Atomic and Magnetic Structures of $\text{Sr}_2\text{MnGaO}_{5+\delta}$, a New Layered Oxide

A.M.Balagurov, V.Yu.Pomjakushin, A.M.Abakumov, E.V.Antipov, M.V.Lobanov, P.Fischer, D.V.Sheptyakov

Crystal and Magnetic Structures of $(\text{Nd}_{1-x}\text{Sr}_x)(\text{Mn}_{1-x}\text{Ru}_x)\text{O}_{3-\delta}$ Perovskite

A.M.Balagurov, S.N.Bushmeleva, V.Yu.Pomjakushin, O.Yu.Gorbenko, A.R.Kaul, L.Keller, D.V.Sheptyakov

Magnetic Property of Quasibinary $(\text{Zr}_{1-x}\text{Ti}_x)\text{Fe}_2$ Laves Phase

Z.Surowiec, A.I.Beskrovnyi, M.Budzynski, J.Sarzynski, M.Wiertel

Structural Study of Ternary Mercury Chalcogenide $\text{HgTe}_{0.85}\text{S}_{0.15}$ under High Pressure

D.P.Kozlenko, V.P.Glazkov, S.E.Kichanov, B.N.Savenko, V.V.Shchennikov, V.I.Voronin

Neutron Diffraction Study of Crystal and Magnetic Structure of MnAs at High Pressure

V.P.Glazkov, D.P.Kozlenko, K.M.Podurets, B.N.Savenko, A.V.Somenkov

An Effect of High Pressure on the Crystal and Magnetic Structure of Manganite $\text{Pr}_{0.8}\text{Na}_{0.2}\text{MnO}_3$

Z.Jirak, D.P.Kozlenko, V.P.Glazkov, B.N.Savenko

Hybridization of Libron and Phonon Modes in NH_4I : Neutron Spectroscopy Studies at Pressures up to 10 GPa

V.P.Glazkov, D.P.Kozlenko, B.N.Savenko, V.A.Somenkov, A.S.Telepnev

Neutron Diffraction Study of Crystal and Magnetic Structure of Mn_2Sb at High Pressure

V.P.Glazkov, V.S.Goncharov, D.P.Kozlenko, V.M.Ryzhkovskii, B.N.Savenko

Coarsening of Antiferromagnetic Domains: the Key Role of Magnetocrystalline Anisotropy

D.L.Nagy, L.Bottyan, L.Deak, J.Dekoster, H.J.Lauter, V.Lauter-Pasyuk, M.Major, O.Nikonov, A.Petrenko, E.Szilagyi

Small-Angle Scattering

Analysis of Magnetic Scattering Effect in SANS from Ferrofluids

V.L.Aksenov, M.Balasoii, M.V.Avdeev, L.Vekas, D.Bica, V.M.Garamus, J.Kohlbrecher

SANS Study of Fullerene Aggregates in Pyridine/Water Solutions

V.L.Aksenov, M.V.Avdeev, A.V.Belushkin, R.P.May, D.Mihailovic, A.Mrzal, L.Rosta, I.N.Serdyuk, A.A.Timchenko

Thickness of Lipid Bilayer and Lipid Surface Area in Unilamellar DMPC and DPPC Liposomes Evaluated from Small-Angle Neutron Scattering Curves Measured at Different Contrasts
N.Kucerka, D.Uhrikova, A.Islamov, P.Balgavy

DMPC Multilamellar Vesicles and Mixed DMPC/C₁₂E₈ Micelles Orientation in Strong Magnetic Fields
M.A.Kiselev, M.Janich, P.Lesieur, A.Hoell, J.Oberdisse, G.Pepy, A.M.Kiselev, I.V.Gapienko, T.Gutberlet, V.L.Aksenov

Resolution Functions in Small Angle Scattering Experiments Energy Dispersive SANS
B.Grabchev, Yu.V.Nikitenko, A.I.Kuklin, A.Ch.Islamov, M.Balasoju

Inelastic Scattering

Investigation of Phase Transitions and Lattice Dynamics in [N(C₂H₅)₄]MeCl₄ (Me=Zn, Cu) Compounds by Neutron Diffraction and Neutron Spectroscopy Methods
V.Yu.Kazimirov, I.Natkaniec, Z.Tylczynski

Neutron Scattering Studies and Quantum Chemistry Modeling of Internal Vibrations of Kinetin
K.Holderna-Natkaniec, I.Natkaniec, W.Kasperkowiak, V.Khavryutchenko, A.Pawlukojc

Ammonium Ion Behaviour in the LiRb_{1-x}(NH₄)_xSO₄ Mixed Crystals (0.77<x<1.0)
L.S.Smirnov, L.A.Shuvalov, M.L.Martinez Sarrion, L.Mestres, M.Herraiz

Neutron Optics

Polarization Analysis with Spatial Neutron Beam-Splitting
V.L.Aksenov, Yu.V.Nikitenko, S.V.Kozhevnikov

RBS and FRD Study of the Epitaxial RuO₂ Films Grown on Different Single Crystal Substrates
D.Machajdik, A.P.Kobzev, K.Frohlich

Magnetization in a Fe/V Periodic Structure
V.L.Aksenov, Yu.V.Nikitenko, V.V.Proglyado, M.A.Andreeva, B.Kalska, R.Wappling

4.2. NEUTRON NUCLEAR PHYSICS

Fission

The Analysis of P-Even Angular Correlations of Fission Fragment from ²³⁵U(n,f)- and ²³⁹Pu(n,f)-Reaction Induced by s- and p-Wave Neutron Resonance Interference
A.B.Popov, W.I.Furman, A.L.Barabanov

Applied Research

Epidermal Neutron Activation Analysis for Developing Selenium-, Iodine-, and Chromium-Containing Pharmaceuticals Based on Blue-Green Algae *Spirulina Platensis* Matrix
M.V.Frontasyeva, S.S.Pavlov, S.F.Gundorina, N.G.Aksenova, L.M.Mosulishvili, E.I.Kirkesali, A.I.Belokobylsky, A.I.Khizanishvili