

### 3. ПУБЛИКАЦИИ

#### ОПУБЛИКОВАННЫЕ СТАТЬИ

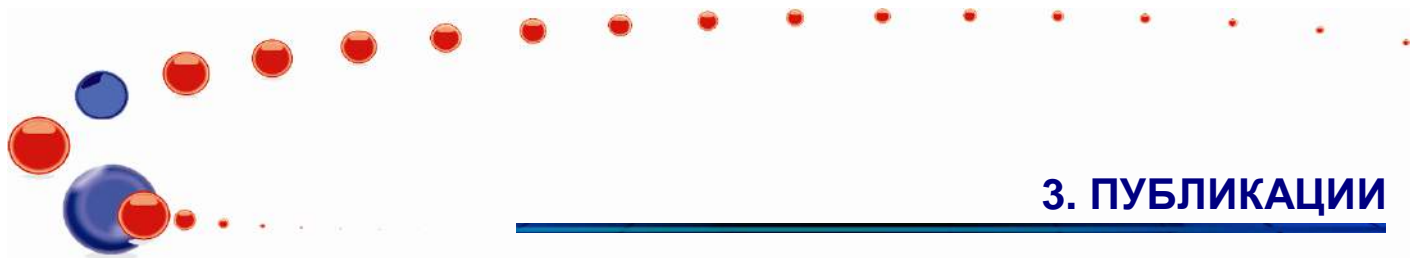
#### ОТДЕЛ НЕЙТРОННЫХ ИССЛЕДОВАНИЙ КОНДЕНСИРОВАННЫХ СРЕД

##### Атомная и магнитная структура (дифракция)

- Alekseev P.A., Nemkovski K.S., Kozlenko D.P., Menushenkov A.P., Yaroslavtsev A.A., Gribanov A.V., Clementyev E.S., Pantalei C., Klobes B., Hermann R.P., "Coexistence of long range magnetic order and intervalent state of Eu in  $\text{EuCu}_2(\text{Si}_x\text{Ge}_{1-x})_2$ : evidence from neutron diffraction and spectroscopic studies", **JETP Letters**, 2014, v. 99, p 185-189.
- Bobrikov I.A., Balagurov A.M., Chih-Wei Hu, Chih-Hao Lee, Sangaa Deleg, Balagurov D.A., Structural evolution in  $\text{LiFePO}_4$ -based battery materials: *in-situ* and *ex-situ* time-of-flight neutron diffraction study. **Journal of Power Sources**, 2014, v. 258, p. 356-364.
- Burzo E., Vlaic P., Kozlenko D.P., Kichanov S.E., Dang N.T., Rutkauskas A.V., Savenko B.N., Magnetic properties, electronic structures and pressure effects of  $\text{Ho}_x\text{Y}_{1-x}\text{Co}_2$  compounds. **Journal of Alloys and Compounds**, 2014, v. 584, p.393-401.
- Craus M.L., Islamov A.Kh., Anitas E.M., Cornei N., Luca D., Microstructural, magnetic and transport properties of  $\text{La}_{0.5}\text{Pr}_{0.2}\text{Pb}_{0.3-x}\text{Sr}_x\text{MnO}_3$  manganites. **Journal of Alloys and Compounds**, 2014, v. 592, p. 121–126.
- Jabarov S.H., Kichanov S.E., Kozlenko D.P., Mehdiyeva R.Z., Lathe C., Mammadov A.I., Lukin E.V., Savenko B.N., The pressure effect on crystal structure of complex ferroelectrics  $\text{Ba}_4\text{Sm}_2\text{Fe}_2\text{Nb}_8\text{O}_{30}$  and  $\text{Ba}_4\text{Gd}_2\text{Fe}_2\text{Nb}_8\text{O}_{30}$ . **Zeitschrift fur Kristallographie**, 2014, DOI:0.1515/zkri-2014-1753.
- Jabarov S.H., Trukhanov A.V., Korneeva E.A., Mehdiyeva R. Z., Kichanov S. E., Mammadov A. I., Lukin E. V., Huseynov R. E., Effect of Concentration Substitution on the Size Factor in  $\text{Li}_{1-x}\text{Na}_x\text{NbO}_3$  Solid Solutions. **Journal of Surface Investigation. X-ray, Synchrotron and Neutron Techniques**, 2014, v. 8, №. 6, p. 1198–1200.
- Karpinsky D.V., Troyanchuk I.O., Mantyckaya O.S., Chobot G.M., Sikolenko V.V., Efimov V., Tovar M., Магнитные и пьезоэлектрические свойства системы  $\text{Bi}_{1-x}\text{La}_x\text{FeO}_3$  вблизи перехода из полярной в антиполярную фазу. **Физика твёрдого тела**, 2014, v. 56, p. 674-678.
- Karpinsky D., Troyanchuk I., Sikolenko V., Efimov V., Efimova E., Willinger M., Salak A.N., Kholkin A., Phase coexistence in  $\text{Bi}_{1-x}\text{Pr}_x\text{FeO}_3$  ceramics. **Journal of Material Science**, 2014, v.49, p. 6937-6943.
- Karpinsky, D., I.O. Troyanchuk, M. Tovar, V. Sikolenko, V. Efimov, V. Efimova, V. Shur, A. Kholkin Temperature and Composition-Induced Structural Transitions in  $\text{Bi}_{1-x}\text{La}(\text{Pr})_x\text{FeO}_3$  ceramics. **Journal of the American Ceramic Society**, 2014, v. 97, p. 2631-2638.
- Karpinsky, D.V., Troyanchuk I.O., Sikolenko V.V., Efimov V., Efimova E., Silibin M.V., Chobot G.M., Willinger E., Temperature evolution of the crystal structure of  $\text{Bi}_{1-x}\text{Pr}_x\text{FeO}_3$  solid solutions. **Physics of the Solid State**, 2014, v. 56, p. 2263-2268.
- Kichanov S.E., Kozlenko D.P., Wąsicki J., Nawrociak W., Dubrovinsky L. S., Liermann H.-P., Morgenroth W., Savenko B.N., The polymorphic phase transformations in the chlorpropamide under pressure. **Journal of Pharmaceutical Science**, 2014, DOI 10.1002/jps.24241.
- Kozlenko D.P., Rutkauskas A.V., Dang N.T., Golosova N.O., Kichanov S.E., Dubrovinsky L.S., Liermann H.-P., Morgenroth W., Savenko B.N., Pressure-induced antiferromagnet-ferromagnet transition and a change in the spin state of Co in  $\text{La}_{0.5}\text{Ca}_{0.5}\text{CoO}_{2.8}$ . **JETP Letters**, 2014, v. 100, p. 380-384.
- Kozlenko D. P., Kichanov S. E., Lukin E. V., Dang N. T., Dubrovinsky L. S., Liermann H.-P., Morgenroth W., Kamynin A. A., Gridnev S. A., Savenko B. N., Pressure-induced polar phases in relaxor multiferroic  $\text{PbFe}_{0.5}\text{Nb}_{0.5}\text{O}_3$ . **Physical Review B**, 2014, v. 89, p.1-7.
- Kozlenko D.P., Dang N.T., Jabarov S.H., Belik A.A., Kichanov S.E., Lukin E.V., Lathe C., Dubrovinsky L.S., Kazimirov V.Yu., Smirnov M.B., Savenko B.N., Mammadov A.I., Takayama-Muromachi E., Khiem L.H., Structural polymorphism in multiferroic  $\text{BiMnO}_3$  at high pressures and temperatures. **Journal of Alloys and Compounds**, 2014, v. 585, p. 741.
- Sikolenko, V.V., Efimov V.V., Schorr S., Ritter C., Troyanchuk I.O., Neutron Diffraction Studies of the Structure of Substituted Complex Cobalt Oxides. **Physics of the Solid State**, 2014, v. 56, p. 77-80.
- Troyanchuk, I.O., Karpinsky D., Efimov V., Sikolenko V., Prokhnenko O., Bartkowiak M., Ferromagnetic Interaction in  $\text{Mn}^{3+}$  based perovskites. **Journal of Physics: Condensed Matter**, 2014, v. 26, p. 396002.
- Yartys V.A., Antonov V.E., Beskrovnyy A.I., Crivello J.-C., Denys R.V., Fedotov V.K., Gupta M., Kulakov V.I., Kuzovnikov M.A., Latroche M., Morozov Yu.G., Sheverev S.G., Tarasov B.P., Hydrogen-assisted phase transition in a triglydride  $\text{MgNi}_2\text{H}_3$  synthesized at high  $\text{H}_2$  pressures: Thermodynamics, crystallographic and electronic structures. **Acta Mater**, (2014), <http://dx.doi.org/10.1016/j.actamat.2014.09.012>
- Аскеров Э.Б., Мададаза А.И., Бескровный А.И., Исмаилов Д.И., Мехдиева Р.Н., Джабаров С.Г., Керимова Э.М., Неов Д., Нейтрографическое исследование  $\text{TlFeS}_2$  и  $\text{TlFeSe}_2$  при низких температурах. **Поверхность. Рентгеновские, синхротронные и нейтронные исследования**, 2014б № 12, с. 5-10.
- Балагуров А.М., Бобриков И.А., Самойлова Н.Ю., Дрожжин О.А., Антипов Е.В. Применение рассеяния нейтронов для анализа процессов в литий-ионных аккумуляторах, **Успехи Химии**, 2014, т. 83, № 12.
- Мехдиева Р.З., Лукин Е.В., Кичанов С.Е., Козленко Д.П., Джабаров С.Г., Данг Т.Н., Мамедов А.И., Савенко Б.Н., Исследование структурных аспектов фазового перехода антисегнетоэлектрик – параэлектрик в двойном перовските  $\text{Pb}_2\text{MgWO}_6$  при высоких давлениях и температурах, **Физика твердого тела**, 2014, т. 56, № 4, с. 735-740.
- Kichanov S.E., Shevchenko G.P., Tretyak E.V., Kozlenko D.P., Malashkevich G.E., Belushkin A.V., Savenko B.N., The structural and luminescent properties of  $\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Ce}^{3+} + \text{Lu}_2\text{O}_3$  crystal phosphors prepared by colloid chemical synthesis. **Journal of Alloys and Compounds**, 2014, v. 613, p. 238-243.
- Кичанов С.Е., Исламов А.Х., Самойленко С.А., Козленко Д.П., Белушкин А.В., Гурин В.С., Шевченко Г.П., Трусова Е.Е., Булавин Л.А., Савенко Б.Н., Исследование особенностей структуры оксидных

##### Наноструктурированные материалы (малоугловое рассеяние и дифракция)

- Kichanov S.E., Shevchenko G.P., Tretyak E.V., Kozlenko D.P., Malashkevich G.E., Belushkin A.V., Savenko B.N., The structural and luminescent properties of  $\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Ce}^{3+} + \text{Lu}_2\text{O}_3$  crystal phosphors prepared by colloid chemical synthesis. **Journal of Alloys and Compounds**, 2014, v. 613, p. 238-243.
- Кичанов С.Е., Исламов А.Х., Самойленко С.А., Козленко Д.П., Белушкин А.В., Гурин В.С., Шевченко Г.П., Трусова Е.Е., Булавин Л.А., Савенко Б.Н., Исследование особенностей структуры оксидных



### 3. ПУБЛИКАЦИИ

- нанокластеров церия и титана в силикатном стекле методом малоуглового рассеяния нейтронов. **Поверхность. Рентгеновские, синхротронные и нейтронные исследования**, 2014, № 2, с. 5–10.
23. Самойленко С.А., Третьяк Е.В., Шевченко Г.П., Кичанов С.Е., Козленко Д.П., Малашкевич Г.Е., Ступак А.П., Савенко Б.Н., Особенности кристаллической структуры и оптических свойств  $\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Ce}^{3+}$ , полученного коллоидно-химическим методом синтеза. **Журнал прикладной спектроскопии**, 2014, т. 81, № 6, с. 958-965.
  24. Самойленко С.А., Третьяк Е.В., Кичанов С.Е., Шевченко Г.П., Козленко Д.П., Булавин Л.А., Савенко Б.Н., Нейтронные и оптические исследования многокомпонентных кристаллических люминофоров  $\text{Y}_3\text{Al}_5\text{O}_{12}:\text{Ce}^{3+}/\text{Lu}_2\text{O}_3$  и  $\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Ce}^{3+}/\text{Lu}_2\text{O}_3$ . **Украинский физический журнал**, 2014, т. 59, № 9, с. 901-905.
  25. Avdeev M.V., Particle interaction in polydisperse magnetic fluids: Experimental aspects of small-angle neutron scattering applications. **Journal of Molecular Liquids**, 2014, v. 189, p. 68-73.
  26. Anitas E. M., Cherny A. Yu, Osipov V. A., Kuklin A. I., Small-angle scattering from three-phase systems: Investigation of the crossover between mass fractal regimes. **Journal of Physics: Conference Series**. 2014, v. 490. № 1, p.1-3.
  27. Arzumanyan G, Vartic V, Kuklin A, Soloviov D, Rachkovskaya G, Zacharevich G, Trusova E., Skoptsov N., Yumashev K., Upconversion Luminescence of  $\text{Er}^{3+}$  and Co-Doped  $\text{Er}^{3+}/\text{Yb}^{3+}$  Novel Transparent Oxyfluoride Glasses and Glass Ceramics: Spectral and Structural Properties. **Journal of Physical Science and Application**, 2014, v. 4, № 3, p. 150-158.
  28. Cherny A. Yu., Anitas E. M., Osipov V. A., Kuklin A. I., Small-angle scattering from multiphase fractal. **Journal of Applied Crystallography**, 2014, v.4, p. 198-206.
  29. Belicka M., Kucerka N., Uhrliková D., Islamov A.Kh., Kuklin A.I., Devínsky F., Balgavý P., Effects of N, N-dimethyl-N-alkylamine-N-oxides on DOPC bilayers in unilamellar vesicles: small-angle neutron scattering study. **European Biophysics Journal**, 2014, v. 43, p. 179–189.
  30. Belushkin A.V., Kazimirov V.Yu., Manoshin S., Reverse Monte Carlo and Voronoi analysis of the local atomic structure of metallic glasses  $\text{Fe}_{63}\text{Er}_2\text{Mo}_{14}\text{C}_{15}\text{B}_6$  and  $\text{Fe}_{75}\text{Y}_5\text{B}_{20}$ . **Journal of Non-Crystalline Solids**, 2014, v. 402, p. 210.
  31. Byvshev I., Murugova T. N., Ivankov O. O., Vangeli I. M., Kuklin A. I., Yaguzhinskiy L. S., Respiration chain and ATP-synthesis system function as tightly-bounded supercomplex. **Biochimica et Biophysica Acta (BBA)-Bioenergetics**, 2014, v.1837, p. e25-e26.
  32. Gibhardt H., Haramagatti C. R., Islamov A. K., Ivankov O. I., Kuklin A. I., Eckold G., Universal Behaviour of the Structure and Dynamics of Micelles Formed from Cationic Surfactants. **Zeitschrift für Physikalische Chemie**, 2014, v. 228, p.769–791.
  33. Eremin R.A., Kholmurodov Kh., Petrenko V.I., Rosta L., Avdeev M.V., Molecular dynamics simulation analysis of small-angle neutron scattering by a solution of stearic acid in benzene. **Physics of the Solid State**, 2014, v. 56, № 1, p. 81-85.
  34. Kiselev M.A., Zemlyanaya E.V., Ryabova N.Y., Hauss T., Almasy L., Funari S.S., Zbytovska J., Lombardo D. Influence of ceramide on the internal structure and hydration of the phospholipid bilayer studied by neutron and X-ray scattering. **Applied Physics A**, 2014, v. 116, p. 319-325.
  35. Melnikova L., Mitroova Z., Timko M., Kovac J., Avdeev M.V., Petrenko V.I., Garamus V.M., Almasy L., Kopcansky P., Structural characterization of magnetoferritin. **Mendeleev Communications**, 2014, v. 24, p. 80-81.
  36. Murugova T. N., Balgavý P., Molecular volumes of DOPC and DOPS in mixed bilayers of multilamellar vesicles. **Physical Chemistry Chemical Physics**, 2014, v.16, p. 18211-18216.
  37. Nagorny A.V., Bulavin L.A., Petrenko V.I., Ivankov O.I., Tomchuk O.V., Avdeev M.V., Vékás L., Determination of the structure factor of interparticle interactions in the ferrofluid by small-angle neutron scattering. **Nuclear Physics and Atomic Energy**, 2014, v.15, p. 59-65.
  38. Nagorny A.V., Petrenko V.I., Bulavin L.A., Almasy L., Kovalchuk V.I., Moroz K.O., Nedyak S.P., Neutron and thermodynamic studies of magnetic fluids stabilized by monocarboxylic acids. **Journal of Physical Studies** 18(2/3) (2014) 2401(6 p.)
  39. Petrenko V.I., Avdeev M.V., Garamus V.M., Kubovcikova M., Gazova Z., Siposova K., Bulavin L.A., Almasy L., Aksenov V.L., Kopcansky P., Structure of amyloid aggregates of lysozyme from small-angle X-ray scattering data. **Physics of the Solid State**, 2014, v. 56, p. 129-133.
  40. Petrenko V.I., Bulavin L.A., Avdeev M.V., Garamus V.M., Koneracka M., Kopcansky P., Structure and interaction of poly(ethylene glycol) in aqueous solutions. Small-angle neutron scattering data. **Macromolecular Symposia**, 2014, v. 335, p. 20-23.
  41. Polovinkin V., Gushchin I, Sintsov M, Round E, Balandin T, Chervakov P, Schevchenko V, Utrobin P, Popov A, Borshchevskiy V, Mishin A, Kuklin A, Willbold D, Chupin V, Popot J.-L., Gordeliy V., High-resolution structure of a membrane protein transferred from amphipol to a lipidic mesophase. **The Journal of membrane biology**, 2014, p.1-8.
  42. Prylutsky Yu.I., Petrenko V.I., Ivankov O.I., Kyzyma O.A., Bulavin L.A., Litsis O.O., Evstigneev M.P., Cherepanov V.V., Naumovets A.G., Ritter U., On the origin of C60 fullerene solubility in aqueous solution. **Langmuir**, 2014, v. 30, p. 3967–3970.
  43. Rajewska A., Medrzycka K., Hallmann E., Small-angle neutron scattering study of the structure of mixed micellar solutions based on nonionic and two cationic surfactants. **Physics of the Solid State**, 2014, v.56, p. 125-128.
  44. Ryabova N.Yu., Gruzinov A.Yu., Zabelin A.V., Synchrotron X-Ray Diffraction Study of the Structure of *Oral Stratum Corneum* Model Lipid Membranes. **Crystallography Reports**, 2014, v.59, № 1, p.117–124
  45. Shibaev A. V., Tamm M., Molchanov V. S., Rogachev A. V., Kuklin A. I., Dormidontova E. E., Philippova O. E., How Viscoelastic Solution of Wormlike Micelles Transforms into Microemulsion upon Absorption of Hydrocarbon: A New Insight. **Langmuir**, 2014, v. 30 № 13, p. 3705-3714.
  46. Shvetsov A. V., Lebedev D.V., Chervyakova D. B., Bakhanova I.V., Yung I.A., Radulescu A., Kuklin A.I., Baitin D.M., Isaev-Ivanov V.V., Structure of RecX protein complex with the presynaptic RecA filament: Molecular dynamics simulations and small angle neutron scattering. **FEBS Letters**, 2014, v. 588, № 6, p. 948–955.
  47. Soloviov D., Zabashta Y., Bulavin L., Olexandr I., Gordeliy V., Kuklin, A., Changes in the Area per Lipid Molecule by P–V–T and SANS Investigations. **Macromolecular Symposia**, 2014, v. 335, № 1, p. 58-61.

### 3. ПУБЛИКАЦИИ

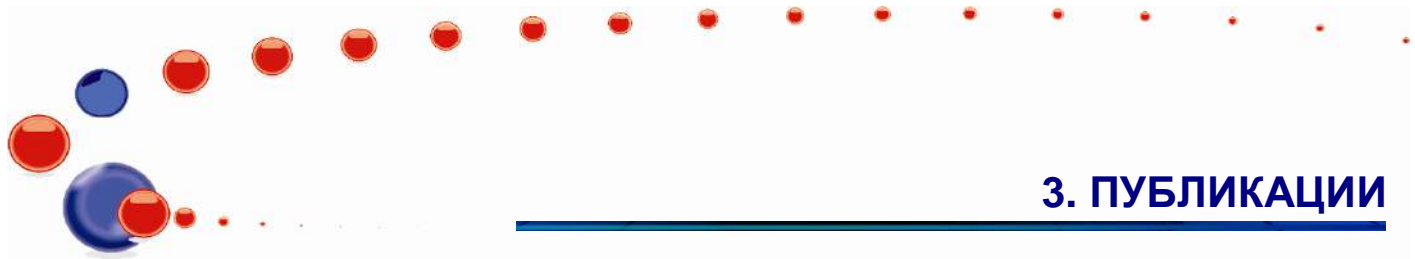
48. Tomchuk O.V., Bulavin L.A., Aksenov V.L., Garamus V.M., Ivankov O.I., Vul' A.Ya., Dideikin A.T., Avdeev M.V., Small-angle scattering from polydisperse particles with a diffusive surface, **Journal of Applied Crystallography**, 2014, v.47, p. 642–653
49. Vlasov A., Murugova T., Grudin S., Ivankov O., Soloviov D., Rogachev A., Round A., Ryzhykau Y., Mishin A., Balandin T., Borshchevskiy V., Gordeliy V., Kuklin A., Protein structure and structural ordering versus concentration dependence. **FEBS Journal**, 2014, v. 281, p. 539 – 540.
50. Еремин Р.А., Холмуродов Х.Т., Петренко В.И., Рошта Л., Авдеев М.В., Молекулярно-динамическое моделирование в анализе малоуглового рассеяния нейтронов органическими растворами. Труды XVIII-ой научной конференции молодых учёных и специалистов ОИЯИ (ОМУС-2014), 2014, с. 217-220.

#### Тонкие пленки (рефлектометрия и поляризованные нейтроны)

51. Asgerov E. B., Madadzada A. I., Ismayilov D. I., Mehdiyeva R.N., Interaction of Heterogeneous Thin Films and Phase Formation in the Ti–Fe–S System. **Semiconductors**, 2014, v. 48, № 9, p. 1233–1236.
52. Asgerov E.B., Madadzada A.I., Ismayilov D.I., Mehdiyeva R.N., Electron Diffraction Study of the Phase Formation of Ti–Fe–Se and Kinetics of Phase Transformations of Films TiFeSe<sub>2</sub>. **Semiconductors**, 2014, v. 48, № 11, p. 1449–1451
53. Ignatovich V.K., Nikitenko Yu.V., Radu F., Reflection of neutrons from fan-like magnetic systems, **American Journal of Modern Physics and Applications**, 2014, v.1, № 1, p. 7-14.
54. Nikitenko Yu.V., Proglyado V.V., Aksenov V.L., Neutron Channeling in Layered Cu/TiCu structures, **Journal of Surface Investigation**, 2014, v. 8, № 5, p. 961-966.
55. Uyanga E., Gibaud A., Daniel P., Sangaa D., Sevjdasuren G., Altantsog P., Beuvier T., Chih Hao Lee, Balagurov A.M., Structural and vibrational investigations of Nb-doped TiO<sub>2</sub> thin films. **Materials Research Bulletin**, 2014, v. 60, e222-e231.
56. Боднарчук И.А., В.И. Боднарчук, С.П. Ярадайкин, Оценка сечения рассеяния нейтронов на спиновых волнах в тонких ферромагнитных слоях, **Физика твердого тела**, 2014, т. 56, № 1, с. 138-141.

#### Атомная и магнитная динамика (неупругое нейтронное рассеяние)

57. Druzbicki K., Natkaniec I., Vibrational Properties of Water Retained in Graphene Oxide, **Chemical Physics Letters**, 2014, v.600, p.106–111.
58. Furrer A., Podlesnyak A., Frontzek M., Sashin I., Embs J.P., Mitberg E., Pomjakushina E., Crystal-field interaction and oxygen stoichiometry effects in strontium-doped rare-earth cobaltates. **Physical Review B**, 2014, v.90, 064426.
59. Górska N., Szostak E., Druzbicki K., Mikuli E., Inaba A., Hirao Y., A Comprehensive Study on Crystal Structure, Thermal Behavior, and Molecular Dynamics of [Sr(DMSO)<sub>4</sub>(NO<sub>3</sub>)<sub>2</sub>]. **Journal of Coordination Chemistry**, 2014, v.67, p.3135–3154.
60. Hetmańczyk J., Hetmańczyk Ł., Migdał-Mikuli A., Mikuli E., Florek-Wojciechowska M., Harańczyk H., Vibrations and reorientations of H<sub>2</sub>O molecules in [Sr(H<sub>2</sub>O)<sub>6</sub>]Cl<sub>2</sub> studied by Raman light scattering, incoherent inelastic neutron scattering and proton magnetic resonance. **Spectrochimica Acta A**, 2014, v.124, p. 429–440.
61. Hetmańczyk J., Hetmańczyk Ł., Migdał-Mikuli A., Mikuli E., Thermal properties of polycrystalline [Mn(NH<sub>3</sub>)<sub>6</sub>](ClO<sub>4</sub>)<sub>2</sub>. Crystal structure and phase transitions. **Journal of Thermal Analysis and Calorimetry**, 2014, v. 118, p. 1049–1056.
62. Hetmańczyk J., Hetmańczyk Ł., Migdał-Mikuli A., Mikuli E. "Vibrations and reorientations of NH<sub>3</sub> molecules in [Mn(NH<sub>3</sub>)<sub>6</sub>](ClO<sub>4</sub>)<sub>2</sub> studied by Infrared spectroscopy and theoretical (DFT) calculations. **Spectrochimica Acta A**, 2014, DOI: 10.1016/j.saa.2014.10.044.
63. Kwocz A., Kochel A., Chudoba D., Filarowski A., Tautomeric design of ortho-hydroxyheterocyclic Schiff bases. **Journal of Molecular Structure**, 2014, v. 1080, p. 52-56.
64. Лисичкин Ю.В., Л.А. Сахарова, А.А. Туманов, Динамика молекулы воды, адсорбированной кремнеземом и смолой SGK-7. **Физика твердого тела**, 2014, т. 56, № 1, с.99-106.
65. Łuczynska K., Druzbicki K., Łyczko K., Starosta W., Complementary Optical and Neutron Vibrational Spectroscopy Study of Bromanilic Acid: 2,3,5,6-Tetramethylpyrazine (1:1) Cocrystal. **Vibrational Spectroscopy**, 2014, v. 75, p. 26–38.
66. Majerz I., Natkaniec I., Proton vibrations in 2,4,6-trimethylpyridinium pentachlorophenolate. **Chemical Physics Letters**, 2014, v. 608, p. 289–294.
67. Natkaniec I., Chudoba D., Hetmańczyk Ł., Kazimirov V.Yu., Krawczyk J., Sashin I.L., Zalewski S., Parameters of the NERA spectrometer for cold and thermal moderators of the IBR-2 pulsed reactor. **Journal of Physics: Conference Series**, 2014, v. 554, 012002.
68. Ozeryanskii V.A., Pozharskii A.F., Antonov A.S., Filarowski A., Out-Basicity of 1,8-bis(dimethylamino)naphthalene: The experimental and theoretical challenge. **Organic & Biomolecular Chemistry**, 2014, v.12, p. 2360-2369.
69. Panek J.J., Jezierska-Mazzarello A.B., Lipkowski P., Martyniak A., Filarowski A., Comparison of resonance assisted and charge assisted effects in strengthening of hydrogen bonds in dipyrins. **Journal of Chemical Information and Modeling**, 2014, v.54, p.86-95.
70. Pajzderska A., Druzbicki K., Gonzalez M. A., Jencyk J., Peplińska B., Jarek M., Mielcarek J., Wąsicki J., Experimental and Solid-State Computational Study of Structural and Dynamic Properties in the Equilibrium Form of Temazepam. **Journal of Physical Chemistry B**, 2014, v. 118, p. 6670–6679.
71. Pawlukoć A., Hetmańczyk Ł., IR, INS and DFT investigations on dynamical properties of low temperature phase of choline chloride. **Chemical Physics**, 2014, v.445, p. 31–37.
72. Pawlukoć A., Holderna-Natkaniec K., Bator G., Natkaniec I., INS, IR, RAMAN, <sup>1</sup>H NMR and DFT investigations of dynamical properties in L-asparagine. **Vibrational Spectroscopy**, 2014, v.72, p. 1-7.
73. Pawlukoć A., Holderna-Natkaniec K., Bator G., Natkaniec I., L-glutamine: dynamical properties investigation by means of INS, IR, RAMAN, <sup>1</sup>H NMR and DFT techniques. **Chemical Physics**, 2014, v.443, p. 17-25.
74. Rachwalska M., Natkaniec I., Zborowski K., Hetmańczyk Ł., Urbanek Z., Inelastic Neutron Scattering (INS) Study of



### 3. ПУБЛИКАЦИИ

- Low Frequency Vibrations and Hydrogen Bonding of (E)-Benzil Monoxime". **Zeitschrift für Physikalische Chemie**, 2014, v. 228, № 1, p. 63–97.
75. Sheka E.F., Natkaniec I., Rozhkova N.N., Holderna-Natkaniec K., Neutron scattering study of reduced graphene oxide of natural origin", *Pis'ma v ZhETF*. 2014, v. 99, № 11, p. 754 – 759.
76. Sheka E.F., Rozhkova N.N., Holderna-Natkaniec K., Natkaniec I., Nanoscale reduced-graphene-oxide origin of shungite in light of neutron scattering. **Nanosystems: physics, chemistry, mathematics**, 2014, v. 5, № 5, p. 659–676.
77. Smirnov M. B., Kazimirov V. Yu., Baddour-Hadjean R., Pereira-Ramos J.-P., Smirnov K.S. Atomistic mechanism of alpha-beta phase transition in vanadium pentoxide. **Journal of Physics and Chemistry of Solids**, 2014, v.75, p. 115.
78. Szostak M.M., Piela K., Holderna-Natkaniec K., Natkaniec I., Bidzińska E., Optical nonlinearity and electric conductivity origin study on sucrose crystal by using IR, Raman, INS, NMR, and EPR spectroscopies. **Carbohydrate Research**, 2014, v.395, p. 29–37.
79. Благовещенский Н.М., Новиков А.Г., Савостин В.В., Самодиффузия в жидких литии и свинце из данных по когерентному квазиупругому рассеянию нейтронов», **Физика твердого тела**, 2014, т. 56, № 1, с.122-125.
80. Благовещенский Н.М., Новиков А.Г., Рожкова Н.Н.,
- Анализ квазиупругого рассеяния нейтронов концентрированной водной дисперсией наноалмазов, **Физика твердого тела**, 2014, т.56, № 1, с.116-118.
81. Благовещенский Н.М., Г.Новиков А., Пучков А. В., Савостин В. В., Микроскопические свойства жидкого галлия из экспериментов по квазиупругому рассеянию нейтронов, **Письма в ЖЭТФ**, 2014, т. 100, №. 5, с. 379-384.
82. Дубовский О.А., Орлов А.В., Перспективы нейтронной спектроскопии генерируемых ультразвуком и гиперзвуком связанных мультифононных солитонов и бисолитонов нового типа, **Физика твердого тела**, 2014, т.56, № 1, с.45-49.
83. Дубовский О.А., Семенов В.А., Орлов А.В., Солитонная и мультифононная микродинамика теплопроводности плутония и урана в области температур мартенситных фазовых переходов, **Физика твердого тела**, 2014, т.56, №1, с.31-35.
84. Новиков А.Г., Топология и водородная связанность в сверхкритической воде. **Физика твердого тела**, 2014, т. 56, № 1, с.119-121.
85. Семенов В.А., Дубовский О.А., Орлов А.В., Савостин Д.В., Сударев В.В., Спектр частот вольфрама при температурах 293 и 2400 К. **Физика твердого тела**, 2014, т.56, № 1, с.36-40.

#### Прикладные исследования (текстура, напряжения, геологические материалы)

86. Bokuchava G.D., Papushkin I.V., Sumin V.V., Balagurov A.M., Sheptyakov D.V., Investigation of microstrain in dispersion-strengthened steels, **Physics of Solid State**, 2014, v. 56, p. 166-170.
87. Bokuchava G.D., Papushkin I.V., Venter A.M., Petrov P.I., Residual stress studies in electron beam welding using neutron diffraction, **Journal of Materials Science and Technology**, 2014, v. 22, № 1, p. 3-11.
88. Bokuchava G.D., Papushkin I.V., Petrov P.I., Residual Stress Study by Neutron Diffraction in the Charpy Specimens Reconstructed by Various Welding Methods. **Comptes rendus de l'Académie bulgare des Sciences**, 2014, v. 67, № 6, p. 763-768.
89. Lutterotti L., Vasin R.N., Wenk H.-R. Rietveld texture analysis from synchrotron diffraction images. I. Calibration and basic analysis, **Powder Diffraction**, 2014, v. 29. № 1, p. 76-84.
90. Santisteban J.R., Malamud F., Vizcaino P., Li M.J., Vogel S., Liaw P., Carr D.G., Sumin V.V., Vasin R.N., Ridikas D. Preliminary round robin on the determination of crystallographic texture of Zr components by neutron diffraction, **IAEA report**, Vienna 2014. p. 1-8.
91. Scheffzuk Ch., Ullemeyer K., Vasin R.N., Naumann R., Schilling F.R. Strain and texture investigations by means of neutron time-of-flight diffraction: application to polyphase gneisses, **Materials Science Forum**, 2014, v. 777, p. 136-141.
92. Taran Yu., Balagurov A., Sabirov B., Davydov V., Venter A., Neutron Diffraction Investigation of Residual Stresses Induced in Niobium-Steel Bilayer Pipe Manufactured by Explosive Welding. **Material Science Forum**, 2014, v. 768-769, p. 697-704.
93. Taran Y.V., Balagurov A.M., Venter A.M., Evans A., Martensitic transformation of austenitic stainless steel cruciform geometry sample by biaxially fatigued cycling, **Materials Science Forum**, 2014, v. 772, p. 109-115.
94. Vasin R.N., Lebensohn R.A., Matthies S., Tome C.N., Wenk H.-R., The influence of grain shape and volume fraction of sheet silicates on elastic properties of aggregates: biotite platelets in an isotropic matrix. **Geophysics**, 2014, v. 79. №6, p. D433-D441.
95. Wenk H.-R., Lutterotti L., Kaercher L., Kanitpanyacharoen W., Miyagi L., Vasin R.N., Rietveld texture analysis from synchrotron diffraction images. II. Complex multiphase materials and diamond anvil cell experiments. **Powder Diffraction**, 2014, v. 29. № 3, p. 220-232.

#### Инструменты и методы

96. Keppler R., Ullemeyer K., Behrmann J.H., Stipp M., Potential of full pattern fit methods for the texture analysis of geological materials: implications from texture measurements at the recently upgraded neutron time-of-flight diffractometer SKAT. **Journal of Applied Crystallography**, 2014, v.47, p. 1520-1534.
97. Кожевников С.В., F. Ott, J. Torrejón, M. Vázquez, A. Thiaville, Применение поляризованного микропучка нейтронов для исследования магнитной микроструктуры, **Физика твёрдого тела**, 2014, v.56, p.63-67.
98. Калинин И.В., Морозов В.М., Новиков А.Г., Пучков А.В., Савостин В.В., Сударев В.В., Булкин А.П., Калинин С.И., Пусенков В.М., Ульянов В.А., Характеристики спектрометра ДИН-2ПИ с нейтронным концентратором, **Журнал технической физики**, 2014. т. 84, № .2, p.155-158

### 3. ПУБЛИКАЦИИ

#### ОТДЕЛ КОМПЛЕКСА СПЕКТРОМЕТРОВ ИБР-2

99. Ananiev V., Belyakov A., Bulavin M., Kulagin E., Kulikov S., Mukhin K., T. Petukhova T., Sirotin A., Shabalin D., Shabalin E., Shirokov V., Verhoglyadov A., The world's first pelletized cold neutron moderator at a neutron scattering facility. **Nuclear Instruments and Methods in Physics Research Section B**, 2014, v. 320, p. 70-74.
100. Belushkin A.V., Kazimirov V.Yu., Manoshin S. Reverse Monte Carlo and Voronoi analysis of the local atomic structure of metallic glasses  $\text{Fe}_{63}\text{Er}_2\text{Mo}_{14}\text{C}_{15}\text{B}_6$  and  $\text{Fe}_{75}\text{Y}_5\text{B}_{20}$ , **Journal of Non-Crystalline Solids**, 2015, v. 402, p. 210-213.
101. Chernikov A.N. Trofimov V.N. Helium-3 adsorption refrigerator cooled with a closed-cycle cryocooler. **Journal of Surface Investigation. X-ray, Synchrotron and Neutron Techniques**, 2014, v. 8, № 5, p. 952–956.
102. Lieutenant K., Zandler C., Manoshin S., Fromme M., Houben A., Nekrassov D. VITESS 2.10 - Virtual instrumentation tool for the European Spallation Source. **Journal of Neutron Research**, 2014, v.17, p. 45-51.
103. Manoshin S., Rubtsov A., Bodnarchuk V., Mattauch S., Ioffe A. Extension of the VITESS polarized neutron suite towards the use of imported magnetic field distributions, **Journal of Neutron Research**, 2014 v. 17, p. 19-26.
104. Аняньев В.Д., Беляков А.А., Булавин М.В., Верхоглядов А.Е., Куликов С.А., Мухин К.А., Шабалин Е.П., Холодный замедлитель нейтронов на модернизированном реакторе ИБР-2. **Журнал технической физики**, 2014, т. 84, № 2, с. 131-134.

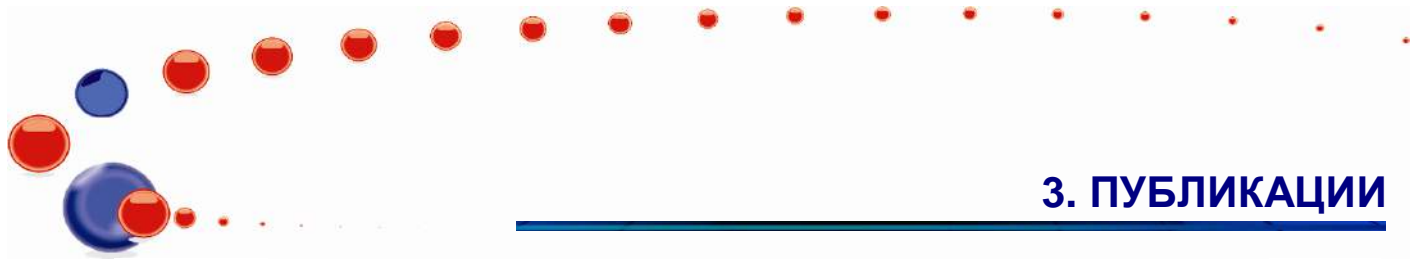
#### ОТДЕЛЕНИЕ ЯДЕРНОЙ ФИЗИКИ

##### Экспериментальные работы

105. Badawi M. S., Ruskov I., Gouda M. M., El-Khatib A. M., Alotiby M.F., Mohamed M.M., Thabet A.A., Abbas M.I., A numerical approach to calculate the full-energy peak efficiency of HPGe well-type detectors using the effective solid angle ratio. **IOP Journal of Instrumentation**, 2014, DOI:10.1088/1748-0221/9/07/P07030.
106. Bevilacqua R., Hamsch F.-J., Bencardino R., Giorganis G., Vidali M., Lamia L., and Ruskov I.,  $^{10}\text{B}$  and  $^6\text{Li}$  Nuclear Data Measurements for Incident Neutron Energies up to 3 MeV. **Nuclear Data Sheets**, 2014, v. 119, p. 104-106.
107. Bystritsky V.M., Kobzev A.P., Krylov A.R., Parzhitskii S.S., Philippov A.V., Dudkin G.N., Nechaev B.A., Padalko V.N., Pen'kov P.M., Tuleushev Y.Z., Filipowicz M., Bystritskii Vit.M., Gazi S., Huran J., Study of the  $d(p, \gamma)\text{He-3}$  reaction at ultralow energies using a zirconium deuteride target. **Nuclear instruments & methods in physics research**, 2014, v.737, p. 248-252.
108. Enik T.L., Mitsyna L.V., Popov A.B., Salamatin I.M., The Angular Anisotropy of Slow Neutrons Scattering. 2014, **JINR Preprint E3-2014-27**, 2014.
109. Frank A.I. Goos-Hänken Effect in Neutron Optics. **JINR Preprint E3-2014-13**, 2014.
110. Frank A.I. On the Goos-Hänken Effect in Neutron Optics. **Journal of Physics: Conference Series**, 2014, v. 528 012029.
111. Gledenov Yu. M., Nesvizhevsky V.V., Sedyshev P.V., Shulgina E.V., Vesna V.A., Search for P-ODD Asymmetry in the Radiative Cross-Section of the Interaction of Neutrons with Lead Nuclei. **Physics of Atomic Nuclei**, 2014, v. 77, № 3, p.316-320
112. Gledenov Yu. M., Sedysheva M. V., Stolupin V. A., Guohui Zhang, Jinhua Han, Zhimin Wang, Xiao Fan, Xiang Liu, Jinxiang Chen, Khuukhenkhuu G., Szalanski P. J., Cross sections of the  $^{57}\text{Fe}(n,\alpha)^{54}\text{Cr}$  and  $^{63}\text{Cu}(n,\alpha)^{60}\text{Co}$  reactions in the MeV region. **Physical Review C**, 2014, v. 89, 064607 (2014)
113. Gledenov Yu. M., Sedysheva M. V., Stolupin V. A., Guohui Zhang, Jinhua Han, Xiang Liu, Xiao Fan, Jinxiang Chen, Khuukhenkhuu G., Szalanski P. J.,  $^{57}\text{Fe}(n,\alpha)^{54}\text{Cr}$  cross sections in the MeV region. **ISINN-21 Proceedings**, 2014, p. 330-335.
114. Khuukhenkhuu G., Gledenov Yu.M., Sedysheva M.V., Odsuren M. and Munkhsaikhan J., Statistical model analysis of  $(n,\alpha)$  and  $(n,p)$  cross sections averaged over the fission neutron spectrum". **ISINN-21 Proceedings**, 2014, p. 336-341..
115. Khuukhenkhuu G., Gledenov Yu.M., Sedysheva M.V., Odsuren M., Munkhsaikhan J., Delgersaikhan T., Systematical Analysis of  $(n,\alpha)$  Reaction Cross Sections for 6-20 MeV Neutrons. **Письма в ЭЧАЯ**, 2014, т.11, №6.
116. Kulin G.V, Strepetov A.N., Frank A.I., Geltenbort P., Goryunov S.V, Jentschel M., Kustov D.V. New experimental test of dispersion law for very slow neutrons. **Physics Letters A**, 378, 2553-2556 (2014)
117. Tsulaia M.I., Neutron nuclear Precession - Nuclear Pseudomagnetism. **Physics of Atomic Nuclear**, 2014, v.77, p1386-1398.
118. Vesna V.A., Gledenov Yu.M., Nesvizhevsky V.V., Sedyshev P.V., Shulgina E.V., Measurement of the left-right asymmetry in integral spectra of  $\gamma$ -quanta in the interaction of nuclei with polarized thermal neutrons. **ISINN-21 Proceedings**, 2014, p. 26-29.
119. Zeinalov SH., Zeinalova O., Hamsch F.J., Sedyshev P., Shvetsov V. Ionization chamber for prompt fission neutron investigations. **Physics Procedia**, 2014, p. 160-166.
120. Бушуев В.А., Франк А.И. Групповое время задержки при отражении волн от многослойных структур и мнимые парадоксы в нейтронной и рентгеновской оптике. **Рентгеновская оптика**, 2014, с. 31-33.
121. Бушуев В.А., Франк А.И., Кулин Г.В. Динамическая теория дифракции нейтронов на движущейся решетке. **Рентгеновская оптика**, 2014, с. 40-42.
122. Игнатович В.К., Саламатин И.М., Саламатин К.М., Сеннер А.Е. Автоматизация экспериментов в области спектрометрии нейтронов с использованием сетевых технологий, **Препринт ОИЯИ**, 2014, P13-2014-33.
123. Франк А. И., Гелтенборт П., Ентшель М., Кустов Д.В., Кулин Г.В., Стрелетов А.Н., Оптический эффект ускоряющегося вещества и длинноволновые нейтроны. **Труды XVIII Международного симпозиума**, 2014, т. 1, с. 349-353.
124. Франк А.И., О законе дисперсии в ускоряющемся веществе. **Письма в ЖЭТФ**, 2014, т. 100, с. 696-697.

##### Теоретические работы

125. Ignatovich V.K., A Missed Solution for an Atom: A Gate Toward Cold Nuclear Fusion. **Infinite Energy Magazine**, 2014, № 117, p. 33-36.
126. Ignatovich V.K., Comment on Can Quantum-Mechanical Description of Physical Reality be Considered Complete?, **American Journal of Modern Physics and Application**,



### 3. ПУБЛИКАЦИИ

- v 1, № 1, p. 1-6.
127. Ignatovich V., Nikitenko Yu., Florin R., Reflection of Neutrons from Fan-Like Magnetic Systems. **American Journal of Modern Physics and Application**, 2014, v.1, № 1, p 7-14.
128. Ignatovich V.K., A Model Of Violation And Superviolation Of Bell's Inequality In Local Quantum Mechanics. **Journal of Physics & Astronomy**, 2014, v.3, №. 3, p. 1-7.
129. Игнатович В.К., Несвижевский В.В., Отражение медленных нейтронов от порошка из нано-стержней. **Атомная энергия**, 2014, т. 116, № 2, с. 100-107.
130. Kobzev A.P. On the radiation mechanism of a uniformly moving charge. **Physics Particles and Nuclei**, 2014, v. 45, № 3, p. 628-653.

#### Прикладные исследования

131. Afanasiev S.V., Borzakov S.B., Egorov V.A., Golutvin I.A., Igamkulov Z.A., Malakhov A.I., Moisenz P.V., Pyataev V.G., Sedyshev P.V., Shvetsov V.N., Smirnov V.A., Zontikov A.O., Experimental study of plastic scintillator damage caused by radiation on IREN at JINR. **CERN-CMS-NOTE-2014-003**, 17 p.
132. Afanasiev S., de Barbaro P. J., Borzakov S.B., Golutvin I., Igamkulov Z.A., Malakhov A., Moisenz P., Pogodaev, G.N., Pyataev V.G., Sedyshev P.V., Shvetsov V.N., Smirnov V. Measuring of induced radioactivity of the HE megatile on IREN at JINR. **CERN-CMS-NOTE-2014-002**, 13 p.
133. Baljinnyam N., Frontasyeva M.V., Aleksiyayenak Yu.V., INAA for determination of trace elements in bottom sediments of the Selenga River basin in Mongolia. **Physics of Elementary Particles and Atomic Nuclei**, 2014, v. 11, № 2, p. 199–208.
134. Baljinnyam N., Tsevegsuren N., Jugder B., Frontasyeva M.V., Pavlov S.S., Investigation of elemental content of some Mongolian medicinal plants. **International Journal of Medicinal Plants**, 2014, v. 106, p. 481-492.
135. Cepoi L., Rudi L., Chiriac T., Valuta A., Zinicovscaia I., Duca Gh., Kirkesali E., Frontasyeva M.V., Culicov O., Pavlov S.S., Bobrikov I., Biochemical changes in some cultures of cyanobacteria at the synthesis of silver nanoparticles. **Canadian Journal of Microbiology**, 2014, DOI: 10.1139/cjcm-2014-0450.
136. Eze Ch.P., Fatoba O., Madzivire G., Ostrovnyaya T.M., Petrik L.F., Frontasyeva M.V., Nechaev A.N., Elemental composition of coal fly ash: Matla Coal Power Station in the Mpumalanga Province in South Africa case study using nuclear and related analytical techniques. **JINR Preprint**, E14-2013-131, 2014, p. 17.
137. Frontasyeva M.V., Pavlov S.S., Zinicovscaia I.I., Bagdavdze N. V., Kirkesali E.I., Gakhokidze R., Neutron activation analysis of agricultural crops exposed to bioenergoactivator. **Agricultural Chemistry**, 2014, № 6, p. 55-61.
138. Harmens H., Mills G., Hayes F., Sharps K., Frontasyeva M.V., Aleksiyayenak Yu., Culicov O. A., Goryainova Z. I., Vergel K.N., Zinicovscaia I. and the participants of the ICP Vegetation. Air Pollution and Vegetation. **ICP Vegetation Annual Report, 2013/2014**. ICP Vegetation Programme Coordination Centre, CEH Bangor, UK, 2014.
139. Horodek P, Dryzek J, Kobets A.G., Kulik M, Lokmatov V.I., Meshkov I.N., Orlov O.S., Pavlov V., Rudakov A.Yu., Sidorin A.A, Siemek K, Yakovenko S.L, Slow Positron Beam Studies of the Stainless Steel Surface Exposed to Sandblasting. **Acta Physica Polonica**, 2014, v. 125, № 3, p. 714-717.
140. Huran J, Balalykin NI, Feshchenko AA, Kobzev AP, Kleinova A, Sasinkova V, Hrubcin, Transmission photocathodes based on stainless steel mesh coated with deuterated diamond like carbon films. **Nuclear Instruments & Methods in Physics Research**, 2014, v. 753, p.14-18.
141. Kobzev A.P., Kulik M., Rzdokiewicz. W. Investigation of MOS Structures Using Nuclear Analytical Methods. **JINR News**, 2014, № 2, p. 16-17.
142. Kravtsova A., Milchakova N., Frontasyeva M., Accumulation of macro- and trace elements in brown algae *Cystoseira* studied by multielement instrumental neutron activation analysis (the Black Sea, south-western Crimea). **Ecological Chemistry and Engineering**, 2014, v. 21, № 1, p. 9-23.
143. Kravtsova A., Milchakova N., Frontasyeva M., Peculiarities of trace element accumulation by macroalgae *Cystoseira* from coastal aquatoria of Crimea (the Black sea). **Optimization and Protection of Ecosystems**, 2014, v.10, p. 146–158.
144. Maňková B., Frontasyeva M. V., Ostrovnyaya T.M., Temporal and spatial trends (1990–2010) of trace element atmospheric deposition in Slovakia – assessment based on moss analysis. Chapter of a book “**Air Pollution**”, INTECH, Open Access Publisher, 2014,
145. Maňková B., Oszlányi J., Izakovičová Z., Andráš P., Dubiel J., Florek M., Holý K., Frontasyeva M.V., Pavlov S.S., Ostrovnyaya T.M., Temporal and spatial trends (1990–2010) of trace element atmospheric deposition in Slovakia: assessment based on moss analysis. **ISINN-21 Proceedings**, 2014.
146. Mitrofanov K. V., Egorov A. S., Piksaikin V. M., Goverdovskii A. A., Zolotarev K. I., Samylin B. F., Gremyachkin D. E., Sedyshev P. V., Zontikov A. O., Zeinalov Sh. S., Shvetsov V. N., Neutron-Physical Characteristics of a Neutron Source for the Production of Radioactive Isotopes Based on the Interaction of Electrons with Liquid Gallium. **Atomic Energy**, 2014, v. 116, p. 252-257.
147. Nekhoroshkov P.S., Kravtsova A.V., Frontasyeva M.V., Tokarev Yu. N., Neutron activation analysis and scanning electron microscopy of phytoplankton in the coastal zone of Crimea (The Black Sea). **American Journal of Analytical Chemistry**, 2014, v. 5, p. 323-334.
148. Nekhoroshkov P.S., Kravtsova A.V., Frontasyeva M.V., Tokarev Yu. N., Neutron activation analysis and scanning electron microscopy of phytoplankton in the coastal zone of Crimea (The Black Sea). **JINR Preprint**, E18-2014-11. Dubna, 2014, p.13.
149. Pavlov S.S., Dmitriev A.Yu., Chepurchenko I.A., Frontasyeva M.V., Automation system for measurement of gamma-ray spectra of induced activity for neutron activation analysis at the reactor IBR-2 of Frank Laboratory of Neutron Physics at the Joint Institute for Nuclear Research. **Physics of Elementary Particles and Nuclei**, 2014, v. 11, № 6, p. 737–742.
150. Perny M, Huran J, Saly V, Vary M, Packa J, Kobzev AP. Electrical and structural characterization of carbon based films prepared by RF-PECVD and ECR-PECVD techniques for photovoltaic applications. **Journal of Optoelectronics and Advanced Materials**, 2014, v.16, № 3-4, p. 306-310.
151. Qarri F., Lazo P., Bekteshi L., Stafilov T., Frontasyeva M., Harmens H., The effect of sampling scheme in the survey of atmospheric deposition of heavy metals in Albania by using moss biomonitoring. **Environmental Science and Pollution Research**, 2014, DOI: 10.1007/s11356-014-3417-3.

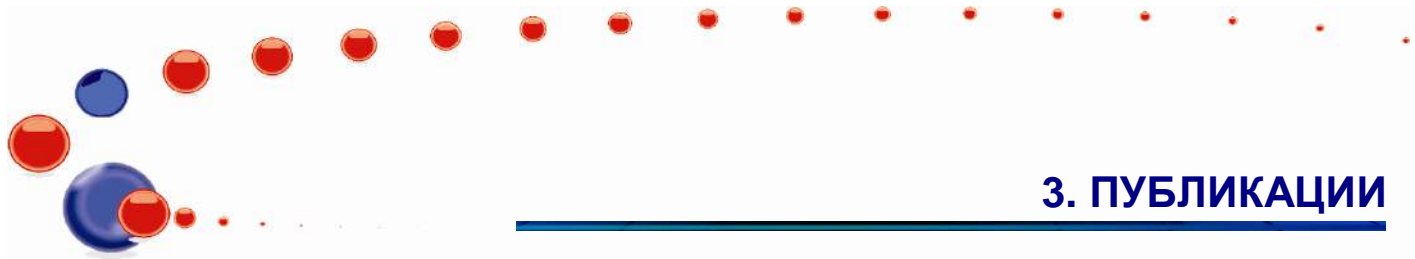
### 3. ПУБЛИКАЦИИ

152. Qarri F., Lazo P., Stafilov T., Frontasyeva M., Harmens H., Bekteshi L., Baceva K., Goryainova Z., Multi-elements atmospheric deposition study in Albania. **Environmental Science and Pollution Research**, 2014, № 21, p. 2506–2518.
153. Sumets M, Ilev V, Kostyuchenko A, Vakhtel V, Kannykin S, Kobzev A. Electrical properties of Si-LiNbO<sub>3</sub> heterostructures grown by radio-frequency magnetron sputtering in an Ar + O<sub>2</sub> environment. **Thin Solid Films**, 2014, v. 552, p. 32-38.
154. Vergel K.N., Goryainova Z.I., Vikhrova I.V., Frontasyeva M.V., Moss biomonitring and employment of the GIS technology within the framework of the assessment of air pollution by industrial enterprises in the Tikhvin District of the Leningrad Region. **Ecology of Urban Areas**, 2014, № 2, p. 92-101.
155. Yastrubchak O., Sadowski J., Gluba L, Domagala J.Z., Rawski M., Zuk J., Kulik M., Andrearczyk T., Wosinski T. Ferromagnetism and the electronic band structure in (Ga,Mn)(Bi,As) epitaxial layers. **Applied Physics Letters** 2014, v. 105.
156. Zinicovscaia I., Mitina T., Lupascu T., Duca Gh., Frontasyeva M. V., Culicov O. A., Study of chromium adsorption onto activated carbon. **Water, Air, & Soil Pollution**, 2014, v. 225, №. 3, p. 1889- 1894.
157. Zinicovscaia I., Cepoi L., Valuta A., Rudi L., Culicov O. A., Frontasyeva M. V., Kirkesali E. I., Pavlov S. S., Mitina T., *Nostoc linckia* as biosorbent of chromium and nickel from electroplating industry wastewaters. **Journal of Material Science and Engineering B**, 2014, v.4, № 8, p. 242-247.
158. Антонова Л. Х., Демихов Т. Е., Троицкий А. В., Юрасов А. Д., Самойленков С. В., Дидык А. Ю., Кобзев А. П., Кулик М., Куликаускас В. С., Михайлова Г. Н., Влияние протонного облучения на критические параметры композитных высокотемпературных сверхпроводящих лент. **Перспективные материалы**, 2014, № 5, с. 34 – 38.

### КОНФЕРЕНЦИИ

#### ОТДЕЛ НЕЙТРОННЫХ ИССЛЕДОВАНИЙ КОНДЕНСИРОВАННЫХ СРЕД

1. Avdeev M.V., Nanodiamonds in solutions: structural aspects by small-angle neutron scattering. 1st Autumn School on Physics of Advanced Materials PAMS-1, September 22-28, 2014, Iasi, Romania, invited lecture.
2. Avdeev M.V., Neutron Reflectometry: Experimental Aspects. 8th Central European Training School on Neutron Scattering, May 19 – 24, 2014, Budapest, Hungary, invited lecture.
3. Avdeev M.V., Structure Characterization of Complex Liquid Dispersions by Scattering Methods. 10th International Conference on Physics of Advanced Materials ICPAM-10, September 22-28, 2014, Iasi, Romania, plenary talk.
4. Balasoiu M., Ivankov A., Soloviov D., Lysenko S., Yakushev R., Balasoiu-Gaina A-M., Burlui V., Lupu N., Small-angle neutron scattering investigation of a concentrated CoFe<sub>2</sub>O<sub>4</sub> ferrofluid sample. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, Dubna, poster report.
5. Balasoiu M., Bica I., Stepanov G.V., Ivankov A.I., Rogachev A.V., Soloviov D.V., Small-angle scattering techniques applied for MEs and MREs investigations. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27 2014, Dubna, oral presentation.
6. Balasoiu M., Ishchenko L.A., Stolyar S.V., Iskhakov R.S., Kuklin A.I., Soloviov D.V., Dragolici A.-C., Raikher Yu.L., Biogenic nanoparticles produced by *Klebsiella Oxytoca* for medical applications: structure and medical investigations. *International Workshop "Structure and Functions of Biomembranes"*, September 28 – October 03, 2014, MIPT Dolgoprudny, Russia, poster report.
7. Balasoiu M., Loginova L.A., Almasy L., I.Bica, Raikher Yu.L., On the magnetic structure of polydimethylsiloxane based elastomers polymerized with Fe<sub>3</sub>O<sub>4</sub> ferrofluid. *Moscow International symposium on Magnetism*, June 29 -July 3, 2014, Moscow, oral presentation.
8. Balasoiu M., Lebedev V.T., Orlova D.N. , Rogachev A.V., Bica I., Bunoiu M., Raikher Yu.L., Structural investigation of magnetic polydimethylsiloxane elastomers polymerized in different oriented magnetic fields. *International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-mechanical properties and structure"*, September 29 - October 03, 2014, Dubna, oral presentation.
9. Balasoiu M., Ivankov O., Soloviov D., Lysenko S., Yakushev R., Balasoiu-Gaina A-M., Lupu N., SANS investigations of CoFe<sub>2</sub>O<sub>4</sub>/lauric acid/DDC-Na/H<sub>2</sub>O ferrofluid. Concentration effects. *International Summer School and Workshop Complex and Magnetic Soft Matter Systems: Physico-mechanical properties and structure*, September 29 - October 03, 2014, Dubna, oral presentation.
10. Balasoiu M., Ivankov O., Soloviov D., Lysenko S., Yakushev R., Balasoiu-Gaina A-M., Burlui V., Lupu N., SANS study of CoFe<sub>2</sub>O<sub>4</sub>/lauric acid/DDC-Na/H<sub>2</sub>O ferrofluid structure. *Moscow International symposium on Magnetism*, 29 June -3 July 2014, Moscow, Russia, poster report.
11. Belozerova N., Savenko B.N., Lukin E.V., Kichanov S.E., Jirak Z., The crystal and magnetic structure of nanostructured manganites La<sub>0.67</sub>Sr<sub>0.33</sub>MnO<sub>3</sub> at high pressure and temperature. *International Conference "Condensed Matter Research at the IBR-2"*, June 24 -27, 2014, Dubna, Russia, poster report.
12. Beskrovnyy A.I., Fedotov V.K., Kulakov V.I., Kuzovnikov M.A., Morozov Yu.G., Sheverev S.G., Tarasov B.P., Yartys V.A., Neutron diffraction study of MgNi<sub>2</sub>D<sub>3</sub>. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, poster report.
13. Bobrikov I.A., Balagurov A.M., N. Mironova-Ulmane, Structural and Magnetic size effects in NiO nanoparticles, *4th International Conferences on Superconductivity and Magnetism*, June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
14. Bobrikov I.A., A.M. Balagurov, Chih-Wei Hu, Chih-Hao Lee, Sangaa Deleg, Analysis of charging/discharging processes in Li-ion batteries by neutron diffraction at pulsed neutron source. *NANO-2014*, July 13-18, 2014, Moscow, Russia, oral presentation.
15. Bobrikov I.A., Balagurov A.M., Chih-Wei Hu, Chih-Hao Lee, Sangaa Deleg, Analysis of processes in Li-ion batteries by time-of-flight neutron diffraction. *IUCr-2014*, August 5-12, 2014, Monreal, Canada, poster report.



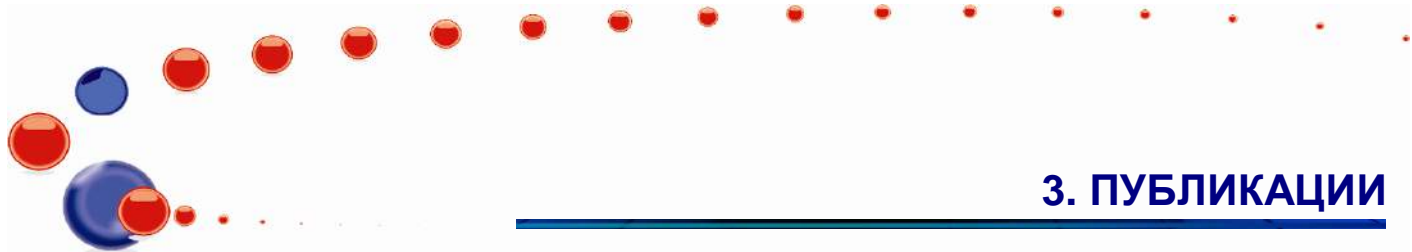
### 3. ПУБЛИКАЦИИ

16. Bobrikov I.A., Analysis of charging/discharging processes in Li-ion batteries by neutron diffraction. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
17. Chudoba D., Hetmańczyk Ł., Natkaniec I., Sashin I.L., Parameters of the NERA spectrometer at the IBR-2 pulse reactor. *Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах РНСИ-КС-2014*, 27-30 октября, 2014, Санкт-Петербург, Старый Петергоф, стендовый доклад.
18. Chudoba D., D. Kozlenko, V. Shvetsov, FLNP JINR User programme at IBR-2 reactor after modernization. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
19. Chudoba D., V. Shvetsov, FLNP JINR User programme at IBR-2 reactor. *International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure"*, September 29 – October 03, 2014, JINR, Dubna, Russia, poster report.
20. Dang N.T., Kozlenko D. P., Kichanov S. E., Lukin E. V., Dubrovinsky L.S., Liermann H.-P., Morgenroth W., Kamynin A. A., Gridnev S. A., Savenko B. N. Pressure-induced polar phases in relaxor multiferroic  $\text{PbFe}_{0.5}\text{Nb}_{0.5}\text{O}_3$ . *International Conference "Condensed Matter Research at the IBR-2"*, 24 June 24-27, 2014, Dubna, Russia, poster report.
21. Druzbicki K., E. Mikuli, J. Wąsicki, A. Pajzderska, K. Łuczyńska, N. Pałka, S. Zalewski, D. Chudoba, J. Ortyl, N. Górka, Vibrational Spectroscopy of Selected Molecular Crystals Explored by First-Principles Computation. 17th International Seminar "Neutron Scattering Investigation in Condensed Matter", May 21-23, 2014, Adam Mickiewicz University, Poznan, Poland, oral presentation.
22. Druzbicki K., J. Ortyl, Time-Dependent Density Functional Theory Study on the Electronic Structure and Spectral Properties of Some Novel Phthalimide Derivatives. *International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure"*, September 29 –October 03, 2014, JINR, Dubna, Russia, poster report.
23. Druzbicki K., K. Łuczyńska, N. Pałka, Terahertz Vibrational Spectroscopy of Molecular Crystals. *International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure"*, September 29 –October 03, 2014, JINR, Dubna, Russia, oral presentation.
24. Druzbicki K., K. Łuczyńska, N. Pałka. Terahertz Vibrational Spectroscopy of Molecular Crystals. *International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure"*, September 29 – October 03, 2014, JINR, Dubna, Russia, poster report.
25. Druzbicki K., N. Pałka, Time-Domain Terahertz Spectroscopy: A New Tool for Studying the Low-Energy Transfers in Molecular Crystals. *International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure"*, September 29 – October 03, 2014, JINR, Dubna, Russia, poster report.
26. Eremin R.A., Kholmurodov Kh.T., Petrenko V.I., Rosta L., Avdeev M.V., Solute-solvent interface peculiarities for mono-carboxylic acids organic solutions: Possible effect on small-angle neutron scattering data. 7th Russian-Japanese International Workshop Molecular Simulation Studies in Material and Biological Sciences (MSSMBS-2014). September 21-22, 2014, Moscow, Russia, invited talk.
27. Fedotov V., Bashkin I., Sholin I., Beskrovnyy A., Sheverev S. Neutron diffraction evidence of the stability of the  $\gamma$ -phase in the Ti-D and Zr-D systems. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, poster report.
28. Filarowski A., D. Chudoba, Ł. Hetmańczyk, A. Kwocz, P. Szklarz, Spectroscopic and crystallographic investigations of nitro derivatives of ortho-hydroxy acetophenones. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
29. Gorkovenko E. A., Kichanov S. E., Kozlenko D. P., Wąsicki J., Nawrociak W., Lukin E. V., Lathe C., Savenko B. N. Study of polymorphic transformations in the complex molecular crystal of fluconazole at high pressure. *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, poster report.
30. Gorshkova Yu. DMPC MLVs and ULVs Structures in presence of  $\text{Ca}^{2+}$  Ions. 17th International Seminar on "Neutron Scattering Investigation in Condensed Matter", May 21-23, 2014, Adam Mickiewicz University, Poznan, Poland, oral presentation.
31. Hetmancyk J., L. Hetmancyk, A. Migdał-Mikuli, Comparison of dynamical properties of  $[\text{Ca}(\text{H}_2\text{O})_4](\text{ClO}_4)_2$  and  $[\text{Ca}(\text{NH}_3)_6](\text{ClO}_4)_2$  compounds studied by vibrational spectroscopies (IR and IINS). *International Conference "Condensed Matter Research at the IBR-2"*, June 24-27, 2014, JINR, Dubna, Russia, poster report.
32. Hetmańczyk J., Ł. Hetmańczyk, A. Migdał-Mikuli, Low temperature phase transition in  $[\text{Ca}(\text{H}_2\text{O})_6]\text{Cl}_2$  studied by infrared and raman spectroscopy and neutron scattering. The 32nd European Congress on Molecular Spectroscopy, August 24-29, 2014, the Heinrich-Heine-University, Düsseldorf, Germany, poster report.
33. Hetmańczyk Ł., J. Hetmańczyk, A. Migdał-Mikuli, E. Mikuli, I. Natkaniec, Structural phase transition in  $[\text{Cd}(\text{NH}_3)_6](\text{ClO}_4)_2$  studied with neutron scattering methods and infrared spectroscopy. *International Conference QENS/WINS 2014*, May 11-16 2014, Atrians, France, poster report.
34. Hetmancyk L., J. Hetmancyk, E. Mikuli, Low temperature phase transition in  $[\text{Ni}(\text{NH}_3)_4](\text{ReO}_4)_2$  studied by infrared spectroscopy and neutron scattering. *International Conference "Condensed Matter Research at the IBR-2"* June 24-27, 2014, JINR, Dubna, Russia, poster report.
35. Jabarov S.H., Kichanov S.E., Kozlenko D.P., Mehdiyeva R.Z., Mammadov A., Lathe C., Savenko B.N., Crystal structure of multiferroics  $\text{Ba}_4\text{Sm}_2\text{Fe}_2\text{Nb}_8\text{O}_{30}$  and  $\text{Ba}_4\text{Gd}_2\text{Fe}_2\text{Nb}_8\text{O}_{30}$  at high pressures. 19th International Conference on Ternary and Multinary Compounds, September 1-5, 2014, Niigata, Japan, poster report.
36. Jabarov S.H., Mammadov A., Savenko B.N., Kichanov S.E., Kozlenko D.P., Mehdiyeva R., High Pressure Effect on Crystal Structure of Antiferroelectric  $\text{NaNbO}_3$ . *International Conference "Condensed Matter Research at*



### 3. ПУБЛИКАЦИИ

- the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
37. Jargalan N., Kyzyna O.A., Tropin T.V., Tomchuk A.A., Bulavin L.A., Avdeev M.V., Aksenov V.L., Formation and growth of clusters in non-polar and polar fullerene solutions: experimental and theoretical aspects. International Conference "Condensed Matter Research at the IBR-2". June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
  38. Jargalan N., Tropin T.V., Avdeev M.V., Sangaa D., Aksenov V.L., Investigation of the kinetics of fullerene C60 dissolution in benzene, toluene and NMP. The 39th meeting of the JINR Programme Advisory Committee for Condensed Matter Physics. 2014, Dubna, Russia, poster report.
  39. Kichanov S. E., Kozlenko D.P., Lukin E.V., Savenko B.N., Neutron diffraction at high pressure at IBR-2 reactor: current state and prospects. The European Powder Diffraction Conference, June 15-18, 2014, Aarhus, Denmark, invited keynote talk.
  40. Kichanov S., Kozlenko D., Rutkauskas A., Savenko B., Bokuchava G., Lukin E., First attempts for time-of-flight neutron radiography experiments on IBR-2 reactor. 10th World Conference on Neutron Radiography (WCNR-10), October 5-10, 2014 Grindelwald, Switzerland, poster report.
  41. Kichanov S.E., Kozlenko D.P., Wąsicki J., Nawrociak W., Czarniecki P., Lukin E.V. and Savenko B.N. The molecular crystals at high pressure: from organic ferroelectrics to complex pharmaceutical components. 17th International Seminar Neutron Scattering Investigation in Condensed Matter, May 21-23, 2014, Poznan, Poland, oral presentation.
  42. Kichanov S.E., Shevchenko G.P., Tretyak E.V., Kozlenko D.P., Malashkevich G.E., Belushkin A.V. and Savenko B.N. The structural aspect of luminescent properties forming in composite phosphors Y3Al5O12:Ce3+/Lu2O3 and Lu3Al5O12:Ce3+/Lu2O3: neutron diffraction results. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  43. Kosova N.V., Devyatkina E.T., Podgornova O.A., Bobrikov I.A., Karpov I.D., Balagurov A.M. Substitution and Size Effects on the Structure and Electrochemistry of 5 V Spinel Cathode Materials LiNi0.5-xMn1.5-yMx+yO4. NANO-2014, July 13-18, 2014, poster report.
  44. Kosova N.V., Podugolnikov V. R., Bobrikov I. A., Balagurov A. M., Crystal Structure and Electrochemistry of Na2-xLixFePO4F (0 ≤ x ≤ 1) New Cathode Materials for Li- and Na-Ion Batteries. 17th International Meeting on Lithium Batteries, June 10-14, 2014, Como, Italy, oral presentation.
  45. Kozlenko D., Kichanov S., Bokuchava G., Lukin E., Rutkauskas A., Savenko B., Neutron Imaging Instrument at IBR-2 high flux pulsed reactor. 10th World Conference on Neutron Radiography (WCNR-10), October 5-10, 2014 Grindelwald, Switzerland, oral report.
  46. Kozlenko D.P. Structure and Properties of Functional Materials and Nanosystems: Neutron Scattering Insight. The 7th International Conference on Materials Science and Condensed Matter Physics, September, 16–19 2014, Chisinau, Republic of Moldova, invited talk.
  47. Kozlenko D.P., Neutron Diffraction: Current Achievements at a Long Pulse Neutron Source. The European Powder Diffraction Conference (EPDIC-14), June 15-18, 2014, Aarhus, Denmark, invited plenary lecture.
  48. Kozlenko D.P., Recent progress in development of the spectrometer complex of IBR-2 high flux pulsed reactor, 17th International Seminar on „Neutron Scattering Investigation in Condensed Matter”, Adam Mickiewicz University, Poznan, May 21-23, 2014, Poland, invited talk.
  49. Kubik P., Filarowski A., Kozłecky T., Synthesis of new BODIPY compounds". Central European School on Physical Organic Chemistry, Modeling, molecules, processes and properties, May 26-30, 2014, Przesieka, Poland, poster report.
  50. Kwocz, A., Martyniak A., Kochel A., Filarowski A., Triple hydrogen bonding in a circular arrangement: synthesis and spectroscopy studies of tris-hydroxyaryl enamines. Central European School on Physical Organic Chemistry, Modeling, molecules, processes and properties, May 26-30 2014, Przesieka, Poland, poster report.
  51. Leiss, B., R. Kühn, K. Ullemeyer. Quantitative texture analysis, a tool for the understanding of kinematics and deformation histories of geological fold structures. 17th International Conference on Textures of Materials, August 24-29, 2014, Dresden, Germany, oral presentation.
  52. Lopatkova M., Filarowski A., Experimental and theoretical (DFT and TD-DFT) investigation of the ground and excited state of BODIPY dyes. Central European School on Physical Organic Chemistry, Modeling, molecules, processes and properties, May 26-30 2014, Przesieka, Poland, oral presentation.
  53. Lopatkova M., Barbosa N., Wieczorek R., Kochel A., Ziolkowski P., Osiecka B., Filarowski A., Synthesis, physico-chemical and biological study of 4,4-difluoro-4-bora-3a,4a-diaza-s-indacene (BODIPY) derivatives. Central European School on Physical Organic Chemistry, Modeling, molecules, processes and properties, May 26-30 2014, Przesieka, Poland, poster report.
  54. Łuczyńska K., K. Druźbicki, Complementary Vibrational Analysis of Bromanilic Acid: 2,3,5,6-Tetramethylpyrazine Co-Crystal. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  55. Łuczyńska K., K. Druźbicki, Vibrational Spectroscopy Study of Low-Weight Molecular Crystals: The Case of Chloranilic Acid Complexes with □- and □-Picolines. International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure", September 29- October 03 2014, Dubna, Russia, poster report.
  56. Łuczyńska K., K. Druźbicki, K. Łyczko, Structural and Vibrational Spectroscopy Study of Bromanilic Acid: 2,3,5,6-Tetramethylpyrazine Complex. Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах РНСИ-КС-2014, 27-31 октября 2014, Санкт-Петербург, Россия, стендовый доклад.
  57. Lukin E., Kozlenko D., Kichanov S., Rutkauskas A., Bokuchava G., Savenko B., Neutron Imaging Station at IBR-2. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  58. Lychagina T., D. Nikolayev, A. Sanin, J. Tatarko. Wheel steel crystallographic texture investigation by neutron diffraction. International Conference of Condensed Matter Research at the IBR-2, June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
  59. Nagorny A.V., Petrenko V.I., On the stability of magnetic fluids under excess of surfactants. International Conference "Condensed Matter Research at the IBR-2",

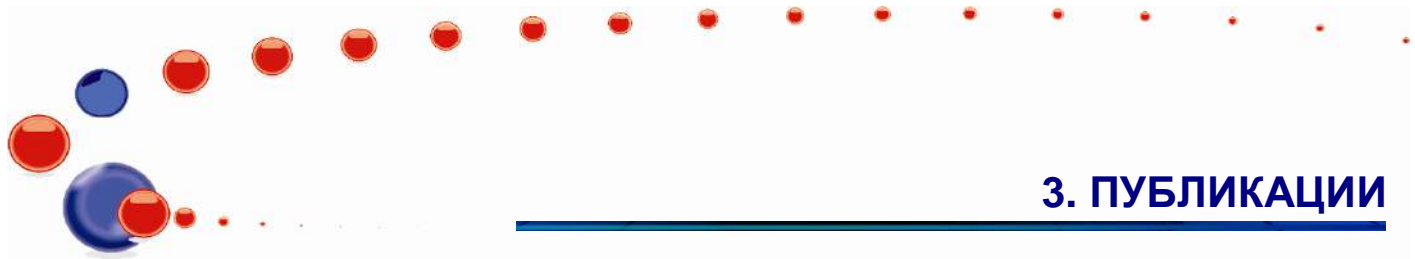


### 3. ПУБЛИКАЦИИ

- June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
60. Nagornyi A.V., Bulavin L.A., Petrenko V.I., Avdeev M.V., Almasy L., Rosta L., Aksenov V.L., Structure investigations of magnetic fluids with surfactant excess by small-angle neutron scattering. 6th International Conference Physics of Liquid Matter: Modern Problems, May 23-27, 2014, Kyiv, Ukraine, oral presentation.
  61. Natkaniec I., Družbicki K., Sheka E.F., Holderna-Natkaniec K., Buslayeva E.Yu., Gubin S.P., Tkachev S.V., Neutron scattering and computational studies of water retained in graphene oxide. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
  62. Natkaniec I., Družbicki K., Sheka E.F., Holderna-Natkaniec K., Buslayeva E.Yu., Gubin S.P., Tkachev S.V., Neutron scattering and computational studies of water retained in graphene oxide. 17th International Seminar "Neutron Scattering Investigation in Condensed Matter", May 21-23, 2014, Adam Mickiewicz University, Poznan, Poland, oral presentation.
  63. Neov D., Valkov S., Beskrovnyi A., Recent Development of the Neutron Guide System RTD Diffractometer – Improvement of Neutron Beam Characteristics and Conformity with the Modeled Results. Сoвeщaниe пo иcпoльзoвaнию рacceяния нейтронoв и синхрoтроннoгo излучeния в кoндeнсирoвaнных средax РНСИ-КC-2014, 27-31 oктября 2014, Санкт-Петербург, Россия, стeндoвoй дoклaд.
  64. Neov D., Valkov S., Beskrovnyi A., Simulations of Neutron Beam at 6a Horizontal Channel of IBR-2 Research Reactor by Monte-Carlo method. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  65. Ordon M., Neutron and thermal analysis of new derivatives, modified terpenoids. Сoвeщaниe пo иcпoльзoвaнию рacceяния нейтронoв и синхрoтроннoгo излучeния в кoндeнсирoвaнных средax РНСИ-КC-2014, 27-31 oктября 2014, Санкт-Петербург, Россия, стeндoвoй дoклaд.
  66. Ordon M., Novel Thioester Cholesterol Derivatives with Liquid Crystalline Properties. International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Chemical Properties and Structure", September 29- October 03 2014, Dubna, Russia, poster report.
  67. Ordon M., Thermal analysis of new thioester derivatives of terpenoids. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  68. Ordon M., Liquid crystal properties of a new thioester derivatives of cholesterol. XVIII международная научная конференция Объединения молодых ученых и специалистов ОИЯИ, 24-28 февраля 2014 Дубна, устный доклад.
  69. Pajzderska A., Družbicki K., Gonzalez M. A., Kiwiłsza A., Mielcarek J., Wąsicki J., Dynamics of pharmacologically active compounds - A QENS and NMR study combined with molecular dynamics and density functional theory simulations. International Conference QENS/WINS 2014, May 11-16, 2014, Autrans, France, poster report.
  70. Papushkin I., Bokuchava G., Sumin V., Residual stress investigation in the crack region of the gas pipeline tube. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  71. Petrenko V.I. Structural aspects of magnetic fluids stabilization: neutron scattering investigations. ISAC meeting at Budapest Neutron Center, November 21-22, 2014, Budapest, Hungary, invited talk.
  72. Petrenko V.I., Structural aspects of magnetic fluids stabilization: neutron scattering investigations. International Conference on Physics and Advanced Materials ICPAM-10, September 22-28, 2014, Iasi, Romania, invited talk.
  73. Petrenko V.I., Avdeev M.V., Bulavin L.A., Garamus V.M., Almasy L., Formation of LC-phase in concentrated solutions of mono-carboxylic acids by SANS and SAXS, Physics of liquid matter: modern problems. May 23-27, 2014, Kyiv, Ukraine, oral presentation.
  74. Petrenko V.I., Avdeev M.V., Garamus V.M., Bulavin L.A., Ivankov O.I., Kopcansky P., Small-angle neutron scattering study of complex surfactant-PEG aqueous micellar solutions. 20th International symposium on surfactants in solution "SIS2014". June 22- 27, 2014, Coimbra, Portugal, oral presentation.
  75. Petrenko V.I., Garamus V.M., Ivankov O.I., Avdeev M.V., Bulavin L.A., Micelle formation in surfactant solutions in the presence of polymer by small-angle neutron scattering. International Conference "Condensed Matter Research at the IBR-2" June 24-27, 2014, JINR, Dubna, Russia, poster report.
  76. Petrenko V.I., Tomchuk O.V., Nagornyi A.V., Gapon I.V., Bodnarchuk V.I., Avdeev M.V., Multifunctional neutron reflectometer GRAINS with horizontal sample plane for studying liquid interfaces at IBR-2 reactor. 20th International symposium on surfactants in solution "SIS2014". June 22- 27, 2014, Coimbra, Portugal, poster report.
  77. Rajewska A., Medrzycka K., Hallmann E. Small Angle Neutron Scattering Study of Micellar Structure of the Type C1E7 (i=10,12,14) of Surfactants in Dilute Solutions. The 28th Conference of the European Colloid and Interface Society, September 7-12, 2014, Limassol, Cyprus, poster report.
  78. Rajewska A., Medrzycka K., Hallmann E., Soloviov D. B. Структура смешанных мицеллярных растворов на основе монотетрадецилового эфира гептаэтиленгликоля и додецилсульфата цезия методом малоуглового рассеяния нейтронов. Сoвeщaниe пo иcпoльзoвaнию рacceяния нейтронoв и синхрoтроннoгo излучeния в кoндeнсирoвaнных средax РНСИ-КC-2014, 27-31 oктября 2014, Санкт-Петербург, Россия, стeндoвoй дoклaд.
  79. Rajewska A., Mędrzycka K., Soloviov D. Aggregation in mixed nonionic surfactant C14E7 and anionic CsDS surfactants micellar solutions. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  80. Rutkauskas A.V., Kichanov S.E., Kozlenko D.P., Burzo E., Lukin E.V., Dang N.T., Savenko B.N. The magnetic structure of HoCo2 and ErCo2 compounds studies at high pressures. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
  81. Sashin I., D. Chudoba, L. Hetmanczyk, I. Natkaniec, S. Zalewski, Spectrometer NERA: results of modernization and proposals for further development. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.

### 3. ПУБЛИКАЦИИ

82. Sheverev S., Diffractometer RTD: current status and perspective directions of researches. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, oral presentation.
83. Sholin I., Fedotov V., Beskrovnyy A., Bashkin I. Neutron diffraction evidence of the stability of the  $\gamma$ -phase in the Ti-D and Zr-D systems. International Conference "Condensed Matter Research at the IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
84. Starosta W., Łuczyńska K., Buczkowski M., Titanium Based Inorganic Nanosorbents for the Removal of Radioactive Cesium and Strontium Radioisotopes. NUTECH, September 21-24, 2014, Warszawa, Poland, poster report.
85. Stipp, M., Schumann K., Leiss B., Ullemeyer K., Understanding the great strength variability among soft Nankai accretionary prism sediments from offshore SW-Japan using synchrotron texture analysis. 17th International Conference on Textures of Materials (ICOTOM), August 24-29, 2014, Dresden, Germany, poster report.
86. Szostak E., J. Hetmańczyk, A. Migdał-Mikuli, Dynamical properties and phase transition in  $[\text{Mn}(\text{DMSO})_6](\text{ClO}_4)_2$  studied by vibrational spectroscopies (IR and IINS). Сoвeщaниe пo иcпoльзoвaнию рacceяния нейтронoв и синхрoтроннoгo иcлyчeния в кoндeнсирoвaннoй cрeдe РНСИ-КC-2014, 27-31 oктябpя 2014, Сaнкт-Пeтepбyрг, Poccия, cтeндoвoй дoклaд.
87. Tomchuk O.V., Study of detonation nanodiamond dispersions by small-angle neutron scattering. International conference "Condensed matter researches at IBR-2", June 24-27, 2014, JINR, Dubna, Russia, poster report.
88. Tomchuk A.A., Kyzyma O.A., Bulavin L.A., Avdeev M.V., Tomchuk O.V., Aksenov V.L., Garamus V.M., Cluster reorganization in C60/NMP/H2O solutions: comparative characteristics of dynamic light scattering and small-angle neutron scattering data. Physics of liquid matter: modern problems. May 23-27, 2014, Kyiv, Ukraine, oral presentation.
89. Tomchuk O.V., Structural studies of detonation nanodiamonds by small-angle neutron scattering, PAC for Condensed matter physics of JINR, June 23-24, 2014, Dubna, Russia, oral presentation.
90. Tomchuk O.V., Bulavin L.A., Avdeev M.V., Aksenov V.L., Garamus V.M., Vul' A.Y., Korobov M.V., Osawa E., Diamond-graphite interface of detonation nanodiamond particles in polar suspensions. Physics of liquid matter: modern problems. May 23-27, 2014, Kyiv, Ukraine. oral presentation.
91. Tomchuk O.V., Bulavin L.A., Avdeev M.V., Aksenov V.L., Osawa E., Continuous diamond-graphite interface in detonation nanodiamond particles as revealed by small-angle neutron scattering analysis. International conference on diamond and carbon materials. September 7-11, 2014, Madrid, Spain, oral presentation.
92. Tropin T.V., G. Schulz, J.W.P. Schmelzer, C. Schick, DSC measurements and modeling of polystyrene glass transition Cp curves in a wide range of cooling rates. 18th Research Workshop "Nucleation Theory and Applications", JINR, Rostock University, Dubna, Russia, April 12-19, 2014, Dubna, Russia, oral report.
93. Tropin T.V., G. Schulz, J.W.P. Schmelzer, C. Schick, Theoretical methods for modeling of the polystyrene glass transition in a wide range of cooling rates. 13th Lähnwitzseminar on Calorimetry, June 15-20, 2014, Rostock, Germany, poster report.
94. Tropin T.V., M.V. Avdeev, O.A. Kyzyma, N. Jargalan, M.V. Korobov, V.L. Aksenov, Formation and growth of clusters in fullerene solutions: experimental and theoretical aspects. International Conference on Physics and Advanced Materials ICPAM-10, September 22-28, 2014, Iasi, Romania, invited report.
95. Tropin T.V., M.V. Avdeev, O.A. Kyzyma, N. Jargalan, M.V. Korobov, V.L. Aksenov, SANS investigation and modeling of cluster growth in polar fullerene C60 solutions. 17th International Seminar "Neutron Scattering Investigation in Condensed Matter", May 21-23, 2014, Poznan, Poland, oral report.
96. Ullemeyer K., Lokajicek T., Keppler R., Vasin R., Behrmann J.H. Bulk rock elastic moduli at high pressures, derived from the mineral textures and from extrapolated laboratory data. 17th International Conference on Textures of Materials, August 24-29, 2014, Dresden, Germany, oral presentation.
97. Ullemeyer, K., T. Lokajicek, R. Keppler, R. Vasin, J. H. Behrmann. Bulk rock elastic moduli at high pressures, derived from the mineral textures and from extrapolated laboratory data. 17th International Conference on Textures of Materials, August 24-29, 2014, Dresden, Germany, poster report.
98. Vasin R.N. Neutron diffraction texture analysis: application to minerals and rocks. International Conference International Conference "Condensed Matter Research at the IBR-2", June 23-24, 2014, Dubna, Russia, oral presentation.
99. Vasin, R.N., T. Lokajicek, K. Ullemeyer. The influence of pore systems on the elastic properties of muscovite-bearing quartzite: insights from ultrasonic measurements and microstructure-based modeling. 17th International Conference on Textures of Materials, August 24-29, 2014, Dresden, Germany, oral presentation.
100. Vovk M.A., A. Kwocz, T. Kozlecki, P. Tretyakov, P.M. Tolstoy, A. Filarowski NMR study of hindered internal rotation in  $\beta$ -hydroxynaphthylamides. Central European School on Physical Organic Chemistry, Modeling, molecules, processes and properties, May 26-30, 2014, Przesieka, Poland, poster report.
101. Walter, J.M., C. Randau, M. Stipp, B. Leiss, K. Ullemeyer, H. Klein, B. T. Hansen, W. F. Kuhs. Textures along the Deformation or Recrystallisation Path – New Experimental Perspectives with the POWTEX Neutron Diffractometer at FRM II Garching, Germany. 17th International Conference on Textures of Materials, August 24-29, 2014, Dresden, Germany, oral presentation.
102. Авдеев М.В., Малоугловое рассеяние нейтронов в структурных исследованиях биорелевантных дисперсных систем. Сoвeщaниe OИКС ПИЯФ пo мaлoуглoвoмy рacceянию и рeфлeктoмeтpии МУРoмeц-2014, 18-19 ceнтябpя 2014, Гaтчинa, Poccия, ycтнoй дoклaд.
103. Авдеев М.В., Структура магнетоферритина: синхротронные и нейтронные исследования. Сoвeщaниe пo иcпoльзoвaнию рacceяния нейтронoв и синхрoтроннoгo иcлyчeния в кoндeнсирoвaннoй cрeдe РНСИ-КC-2014, 27-31 oктябpя 2014, Пeтepбyрг, Poccия, пpиглaшeнный дoклaд.
104. Балагуров А.М., Применение рассеяния нейтронов для анализа процессов в Li-источниках электрического тока. XIII Международная



### 3. ПУБЛИКАЦИИ

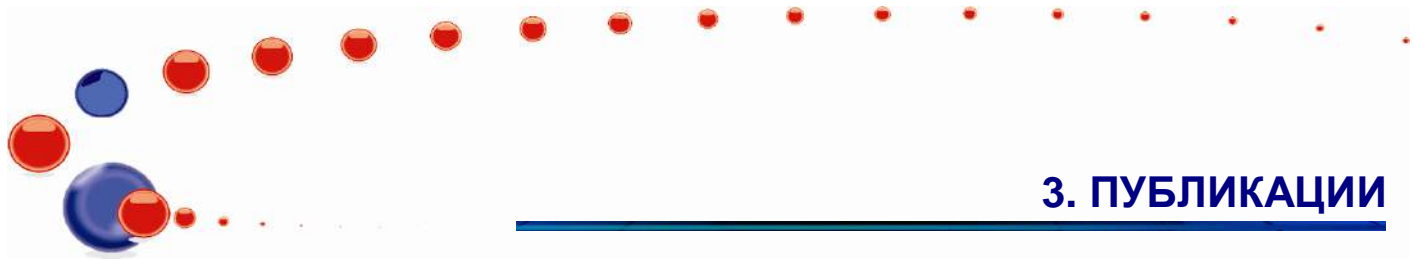
- конференция “Фундаментальные проблемы преобразования энергии в литиевых электрохимических системах”, 16-19 сентября 2014, Алматы, Казахстан, устный доклад.
105. Балагуров А.М., Рассеяние нейтронов для анализа процессов в Li-ионных аккумуляторах. XXII Международное совещание “Использование рассеяния нейтронов и синхротронного излучения в конденсированных средах”, 27-31 октября 2014, Петергоф, Россия, приглашенный доклад
  106. Балашов М.А., В.Т. Лебедев, И. Бика, С.С. Абрамчук, Ю.Л. Райхер, Исследование магнитных эластомеров синтезированных в продольном магнитном поле методом МУРН. VIII Научно-практическое совещания “Актуальные проблемы физики конденсированных сред”, 8-10 октября 2014 года, Пермь, Россия, устный доклад.
  107. Бескровный А.И. Нейтронная дифракция в реальном времени. Совещание. Дифракция нейтронов и синхротронного излучения. Перспективы развития в ПИЯФ, 20 - 21 февраля 2014, Гатчина, Россия, устный доклад.
  108. Благовещенский Н.М., Нейтронография жидкого галлия. XXII Международное совещание “Использование рассеяния нейтронов и синхротронного излучения в конденсированных средах”, 27-31 октября 2014, Петергоф, Россия, приглашенный доклад.
  109. Бобриков И.А., Analysis of charging/discharging processes in Li-ion batteries by neutron diffraction at pulsed neutron source. XXII Международное совещание “Использование рассеяния нейтронов и синхротронного излучения в конденсированных средах”, 27-31 октября 2014, Петергоф, Россия, устный доклад.
  110. Бобриков И.А., Взаимосвязь структурного и магнитного фазового перехода в феррите меди. Конференция ОМУС-2014, 24-28 февраля 2014, Дубна, Россия, устный доклад.
  111. Бобриков И.А., Косова Н.В., Карпов И.Д., Neutron diffraction study of substitution and size effects on the structure of 5 V spinel cathode materials  $\text{LiNi}_{0.5}\text{-xMn}_{1.5}\text{-yMx-yO}_4$ . XXII Международное совещание “Использование рассеяния нейтронов и синхротронного излучения в конденсированных средах”, 27-31 октября 2014, Петергоф, Россия, стендовый доклад.
  112. Бокучава Г.Д., Петров П.И., Папушкин И.В., Применение нейтронной стресс-дифрактометрии для исследования образцов-свидетелей, восстановленных различными методами сварки. XXII Международное совещание “Использование рассеяния нейтронов и синхротронного излучения в конденсированных средах”, 27-31 октября 2014, Петергоф, Россия, приглашенный доклад.
  113. Васин Р.Н. Нейтронографический текстурный анализ горных пород и конструкционных материалов в ЛНФ ОИЯИ. Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах, 27-31 октября 2014, Петергоф, Россия, устный доклад.
  114. Горковенко Е.А., Кичанов С.Е., Д.П.Козленко, Я.В.Вонсицки, Е.В. Лукин, К. Лате, Б.Н.Савенко, Исследование полиморфных фазовых переходов в сложном молекулярном кристалле флуконазола при высоком давлении, ОМУС-2014, 24-28 февраля 2014 года, Дубна, Россия, устный доклад.
  115. Еремин Р.А., Холмуродов Х.Т., Петренко В.И., Рошта Л., Авдеев М.В., Молекулярно-динамическое моделирование в анализе малоуглового рассеяния нейтронов органическими растворами, ОМУС-2014., 24-28 февраля 2014 г., Дубна, Россия, устный доклад.
  116. Карпов И.Д., Нейтронное дифракционное исследование влияния замещения катионов на микроструктуру литий-марганцевых шпинелей, ОМУС-2014, 24-28 февраля 2014, Дубна, Россия, устный доклад. Устный доклад.
  117. Кичанов С.Е., Козленко Д.П., Руткаускас А.В., ЛукЕ.В., Бокучава Г.Д., Савенко Б.Н. Экспериментальная станция для нейтронной радиографии и томографии на реакторе ИБР-2: текущий статус и перспективы. Научная конференция “Практическая микротомография”, 1 - 4 октября 2014 года, Санкт-Петербург, Россия, устный доклад.
  118. Кичанов С.Е., Джабаров С.Г., Козленко Д.П., Лукин Е.В., Савенко Б.Н. Оксидные сегнетоэлектрики при высоком давлении: структурный аспект. Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах РНСИ-КС-2014, 27-31 октября 2014, Санкт-Петербург, Россия, устный доклад.
  119. Кожевников С.В., Neutron methods for direct determination of magnetic induction, III Школа полярных нейтронов, 18-19 декабря 2014, Гатчина, Россия, устный доклад.
  120. Кожевников С.В., В.К. Игнатович, Т. Келлер, Ф. Отт, Ф. Раду, Ю.Н. Хайдуков, Канализация нейтронов в слоистых волноводах, Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах, 27-31 октября 2014, Санкт-Петербург, Россия, устный доклад.
  121. Козленко Д.П., Комплекс спектрометров модернизированного реактора ИБР-2: текущее состояние и перспективы развития. XXII Международное совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах РНСИ-КС-2014, 27-31 октября 2014, Петергоф, приглашенный доклад.
  122. Лукин Е.В., Кичанов С.Е., Козленко Д.П., Руткаускас А.В., Бокучава Г.Д., Савенко Б.Н. Текущий статус дифрактометра для исследований при высоких давлениях ДН-6. Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах РНСИ-КС-2014, 27-31 октября 2014, Санкт-Петербург, Россия, устный доклад.
  123. Нагорный А.В., Структура полярного феррофлюида с избытком молекул кислоты по данным малоуглового рассеяния нейтронов, ОМУС-2014, 24-28 февраля 2014, Дубна, Россия, стендовый доклад.
  124. Нагорный А.В., Петренко В.И., Иваньков О.И., Томчук О.В., Авдеев М.В., Булавин Л.А., Vekas L., Изучение межчастичного взаимодействия в полярной феррожидкости с помощью метода малоуглового рассеяния нейтронов. 48-ая Школа ПИЯФ по физике конденсированного состояния» (ФКС-2014). 10-15 марта 2014, Зеленогорск, Россия, стендовый доклад.
  125. Никитенко Ю.В., Метод стоячих волн в рефлектометрии слоистых наноструктур сверхпроводник/ферромагнетик. III Школа

### 3. ПУБЛИКАЦИИ

- поляризованных нейтронов, 18-19 декабря 2014, Гатчина, Россия, устный доклад.
126. Руткаускас А.В., Д.П. Козленко, С.Е. Кичанов, Б.Н. Савенко, Е.В. Лукин, N.T. Dang, И.О. Троянчук Исследование лантан бариевых оксидов кобальта под высокими давлениями. Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах (РНСИ-КС-2014), 27-31 октября 2014, Санкт-Петербург, Россия, устный доклад.
127. Руткаускас А.В., Д.П. Козленко, С.Е. Кичанов, Б.Н. Савенко, Е.В. Лукин, N.T. Dang, И.О. Троянчук Структурные и магнитные фазовые переходы в сложном оксиде кобальта  $\text{La}_{0.5}\text{Ba}_{0.5}\text{CoO}_{2.8}$  при высоких давлениях. ОМУС-2014, 24-28 февраля 2014, Дубна, Россия, устный доклад.
128. Сумников С.В., Исследование атомной и магнитной структуры твердых растворов  $\text{Ni}_{1-x}\text{Mg}_x\text{O}$ , ОМУС-2014, 24-28 февраля 2014, Дубна, Россия, устный доклад.
129. Томчук А.А., Кизима О.А., Авдеев М.В., Булавин Л.А., Петренко В.И., Алмаши Л., Коробов М.В., Кошлань И.В., Корреляция структуры и токсичности водных растворов фуллерена  $\text{C}_{60}$ . 48-я Школа ПИЯФ по физике конденсированного состояния (ФКС-2014), 10-15 марта 2014, Гатчина, Россия, стендовый доклад.
130. Томчук А.В., Авдеев М.В., Булавин Л.А., Фрактальные модели кластеров в анализе малоуглового рассеяния наноалмазами. 48-я Школа ПИЯФ по физике конденсированного состояния (ФКС-2014), 10-15 марта 2014, Гатчина, Россия, стендовый доклад.
131. Шверёв С., Real-time diffractometer на 6 канале реактора ИБР-2: текущее состояние. Совещание по использованию рассеяния нейтронов и синхротронного излучения в конденсированных средах РНСИ-КС-2014, 27-31 октября 2014, Санкт-Петербург, Россия, устный доклад.

### ОТДЕЛЕНИЕ ЯДЕРНОЙ ФИЗИКИ

132. Barandovski L., Frontasyeva M.V., Stafilov T., Šajn R., Bačeva K., Dmitriev A.Yu., Air pollution study in Macedonia by using moss biomonitring technique, NAA, ICP-AES, AND AAS. *The 27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
133. Chietera A., Stuttge L., Goennenwein F., Kopatch Y., Mutterer M., Guseva I., Gagarski A., Chernysheva E., Dorvaux O., Hamsch F.J., Hanappe F., Telezhnikov S., Mezentseva Zh., Neutron emission anisotropy in fission. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27-30, 2014, Dubna, Dubna, Russia, oral presentation.
134. Culicov O., Setnescu T., Setnescu R., Zinicovscaia I., Frontasyeva M., Neutron activation analysis of sewage sludge from Dambovita county, Romania. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27-30, 2014, Dubna, Dubna, Russia, oral presentation.
135. Culicov O.A., Tarcău D., Cucu-Man S.M., Zinicovscaia I., Vintu V., Samuil C., Frontasyeva M.V., Epithermal neutron activation analysis of forages from permanent grasslands of north-eastern Romania. *RadChem-2014*, May 11-16, 2014, Marianske Lazne, Czech Republic, oral presentation.
136. Culicov O.A., Zinicovscaia I., Setnescu T., Setnescu R., Frontasyeva M.V., Neutron activation analysis of elemental content of sunflower and olive oils. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27-30, 2014, Dubna, Dubna, Russia, oral presentation.
137. Dmitriev A.Yu., Pavlov S.S., Frontasyeva M.V., Software complex for automation of reactor neutron activation analysis. *The 3rd International Conference on Circuits, Systems, Communications, Computers and Applications (CSCCA '14)*, November 22-24, 2014, Florence, Italy.
138. Dmitriev A.Yu., Pavlov S.S., Chepurchenko I.A., Frontasyeva M.V., Automation system for measurement of gamma spectra in mass neutron activation analysis in the radioanalytical complex regata at the reactor ИБР-2 of FLNP JINR. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27-30, 2014, Dubna, Dubna, Russia, oral presentation.
139. Duliu O.G., Szabo G., Frontasyeva M.V., Culicov O.A., Oaie G., Gradinaru J., The Geochemistry of the Black Sea. Sediments Belonging to the First and to the Second Stratigraphic Units: (I) Major Elements Vertical Profile. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27-30, 2014, Dubna, Dubna, Russia, oral presentation.
140. Dunaev A.M., Frontasyeva M.V., Grinevich V.I., Biomonitoring of trace elements in Ivanovo Region, Central Russia. *The 27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
141. Frank A., Interaction of neutrons with birefringent medium moving with acceleration. *Polarized Neutrons for Condensed Matter Investigations (PNCMI 2014)*, September 15-19, 2014, Sydney, Australia, oral presentation.
142. Frontasyeva M. V., Long-range transboundary air pollution studied by nuclear and related analytical techniques. *Global Environmental Change and Population Health: Progress and Challenges*. November 19-21, 2014, Budapest, Hungary.
143. Frontasyeva M., Moss biomonitring of trace elements and radionuclides in rural and urban areas experiencing environmental stress. *The 27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
144. Frontasyeva M.V., Long-range transboundary air pollution studied by nuclear and related analytical techniques in Europe. *The VIth Euroasian Conference on Nuclear Science and its Application*, October 21-24, 2014, Baku, Azerbaijan.
145. Frontasyeva M.V., Nuclear and related analytical techniques in microbial biotechnology. *The 5th World Congress Biotechnology-2014*, July 25-27, 2014, Valencia, Spain, invited talk.
146. Frontasyeva M.V., The moss biomonitring, nuclear and related analytical techniques, and GIS technology used to study atmospheric deposition of trace elements and radionuclides in the areas under strong anthropogenic impact. *The 2nd International Conference "Lichenology in Russia: problems and perspectives"*. November 5-8, 2014, Saint-Petersburg, Russia.
147. Frontasyeva M.V., The moss biomonitring, nuclear and related analytical techniques, and GIS technology used to study atmospheric deposition of trace elements and

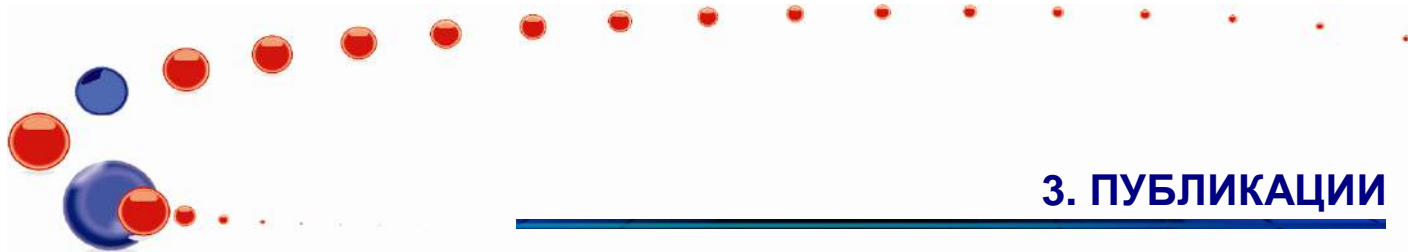


### 3. ПУБЛИКАЦИИ

- radionuclides in the areas under strong anthropogenic impact. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia, oral presentation.
148. Frontasyeva M.V., Moss survey in 2015/2016: tentative plans in Europe and Asia. *The 33rd session of the Working Group on Effects (WGE) under the Convention on Long-range Transboundary Air Pollution*. September 17-19, 2014, Geneva, Switzerland.
  149. Gorelova S.V., Frontasyeva M.V., Gorbunov A.V., Lyapunov S.M., Okina O.I., Bioindication and monitoring of atmospheric deposition using trees and shrubs. *The 27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
  150. Gorelova S.V., Frontasyeva M.V., Lyapunov S.M., Gorbunov A.V., Okina O.I., Perspectives of woody plant implementation in phytoremediation of toxic elements in industrial cities. *The 11th International Phytotechnologies Conference*, September 30 – October 3, 2014, Heraklion, Crete, Greece.
  151. Grozdanov D., Sariev N.D., Ruskov I., Kopach Yu.N., Negovellov S.I., Mareev Yu.D., Comparison of two NaI(Tl) multi-detector systems. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Dubna, Russia,
  152. Grozdanov D.N., Issatov A.T., Kopach Yu.N., Skoy V.R., Negovellov S.I., Ruskov I.N., Energy- and Time- resolution of gamma-ray detectors”, *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
  153. Huran J., Boháček P., Kulikov S.A., Shabalin E.P., Sasinková V., Kleinová A., Kobzev A.P., Sekáčová M., Arbet J. Radiation Hardness Investigation of PECVD Silicon Carbide Layers for PV Application. *40th IEEE Photovoltaic Specialist Conference*, June 8-13, 2014, Denver, Colorado. Oral presentation.
  154. Ignatovich V.K., Nesvizhevsky V.V., Reflection of slow neutrons from powder of nanorods. *ICANS XXI*, September 29- October 04, 2014 Mito, Japan.
  155. Ignatovich V.K., Salamatin I.M., Salamatin K.M., Senner A.E., Automation of neutron spectrometry experiments using network technologies. *ICANS XXI*, September 29- October 04, 2014 Mito, Japan.
  156. Kalabegishvili T.L., Murusidze I.G., Kirkesali E.I., Rcheulishvili A.N., Ginturi E.N., Gelagutashvili E., Kuchava N., Bagdavadze N., Janjalia M., Pataraya D.T., Gurielidze M.A., Frontasyeva M.V., Zinicovscaia I.I., Pavlov S.S., Tsertsvadze G., Gabunia V. Possibilities of physical methods in development of microbial nanotechnology. *Nano 2014*, October 20-24, 2014, Tbilisi, Georgia.
  157. Khuukhenkhuu G., Gledenov Yu.M., Guohui Zhang, Sedysheva M.V., Munkhsaikhan J., Odsuren M., Systematics of (n,α) cross sections for 4-6 MeV neutrons. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia, poster report
  158. Khuukhenkhuu G., Gledenov Yu.M., Turbold A., Baatarkhuu D., Munkhsaikhan J., Odsuren M., Some Peculiarity of the Photon Activation Analysis By Bremsstrahlung Gamma-Ray. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia, poster report.
  159. Kopatch Y., Chietera A., Stuttgart L, Goennenwein F, Mutterer M., Guseva I., Gagarski A., Chernysheva E., Dorvaux O, Hamsch F.J., Hanappe F., Telezhnikov S., Mezentseva Zh., Detailed study of the angular correlations in the prompt neutron emission in spontaneous fission of <sup>252</sup>Cf, *THEORY-3: Scientific Workshop on Nuclear Fission dynamics and the Emission of Prompt Neutrons and Gamma Rays, EC-JRC-IRMM, Opatija, Croatia*, oral presentation...
  160. Kopatch Yu. For the TANGRA collaboration, Development of the tagged neutron method for elemental analysis and nuclear reaction studies - TANGRA project. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia, oral presentation.
  161. Kravtsova A.V., Frontasyeva M.V., Milchakova N.A., Neutron activation analysis of macroalgae *Cystoseira* from coastal zone of marine protected areas (the Black Sea, Crimea). *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia,
  162. Kulik M., Kołodyńska M.D., Kobzev A.P., Komarov F.F. and Pyszniak K. Chemical composition of native oxides on noble gases ion implanted GaAs. *X-th international conference - Ion Implantation and Other Applications of Ions and Electrons*, June 23-26, 2014, Kazimierz Dolny, Poland, oral presentation.
  163. Kulik M., Kołodyńska M.D., Komarov F.F. and M. Turek M. Effect of increase of the implanted In+ ion fluence on chemical composition of near surface GaAs layer. *X-th international conference - Ion Implantation and Other Applications of Ions and Electrons*, June 23-26, 2014, Kazimierz Dolny, Poland, poster.
  164. Kulik M., Kołodyńska M.D., Rzedkiewicz W., Żuk J., Kobzev A.P. Komarov F.F., Maćzka D. Dielectric function of In+ ion implanted GaAs after rapid thermal annealing. *X-th international conference - Ion Implantation and Other Applications of Ions and Electrons*, June 23-26, 2014, Kazimierz Dolny, Poland, poster.
  165. Kulik M., Surowiec Z., Rzedkiewicz W., Filijs F. and Drozdziel A. Effect of N<sup>2+</sup> ion implantation and thermal annealing on near-surface layers of implanted GaAs. *X-th international conference - Ion Implantation and Other Applications of Ions and Electrons*, June 23-26, 2014, Kazimierz Dolny, Poland, poster.
  166. Kulin G Diffraction on moving grating and systematic effects in gravity experiment. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
  167. Lazo P., Qarri F., Bektishi L., Stafilov T., Frontasyeva M., Harmens H., Multi-elements atmospheric deposition study in Albania. *The 5th EuChemS – Chemistry Congress*, August 31- September 4, 2014, Istanbul, Turkey.
  168. Lazo P., Qarri F., Stafilov T., Frontasyeva M., Bektishi L., Baceva K., Marka J., The survey of atmospheric deposition of Al, Cr, Fe, Ni, V and Zn in Albania by using moss biomonitoring and ICP-AES. *27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
  169. Lychagin E., Helium UCN source in an external beam of thermal neutrons. *GRANIT-2014, Ecole de Physique des Houches*, March 2-7, 2014, Les Houches, France.
  170. Lychagin E.V., Muzychka A.Yu., Nekhaev G.V., Nesvizhevsky V.V., Strelkov A.V., Helium UCN source at the extracted beam of thermal neutrons, *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
  171. Maňková B., Oszlányi J., Izakovičová Z., Florek M., Holý K., Masarik J., Sýkora I., Tučeková A., Andráš P., Dubiel L., Frontasyeva M., Moss biomonitoring of trace

### 3. ПУБЛИКАЦИИ

- elements in Slovak industrial areas, mining country, and national parks experiencing environmental stress. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
172. Maňkovská B., Oszlányi J., Izakovičová Z., Florek M., Holý K., Tučeková A., Frontasyeva M.V., Ostrovnyaya T.M., Andráš P., Dubiel J., Chemical and morphological characteristics of key tree species of mining country by toxic element at selected Cu- deposits. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
173. Maňkovská B., Oszlányi J., Izakovičová Z., Frontasyeva M.V., Critical evaluation of ecosystem pollution. *27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
174. Nekhoroshkov P.S., Tokarev Yu.N., Kravtsova A.V., Frontasyeva M.V., Neutron activation analysis of plankton from coastal zone of Crimea. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
175. Oprea A. I., Oprea C. Neutron capture cross sections and strength functions in neutron reactions on  $^{147}\text{Sm}$  nucleus. *Conference of Physics*, June 20, 2014, Bucharest, Romania, oral presentation.
176. Oprea A. I., Oprea C., Gledenov Yu. M., Sedyshev P. V., Sedysheva M. V., Cross sections evaluation in nuclear reactions with fast neutrons. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster.
177. Oprea A. I., Oprea C., Sedyshev P.V., Gledenov Yu. M. PV effects in neutron reactions with slow neutrons on  $^{204}\text{Pb}$  nucleus. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster.
178. Oprea C., Gustova M. V., Oprea A. I., Szalanski P. J., Ciofu R., Mihul A., Determination of essential elements and trace heavy metals in agricrops by photon neutron activation method. *Conference of Physics*, June 20, 2014, Bucharest, Romania, oral presentation.
179. Oprea C., Oprea A. I., Cross section of Gd isotopes in neutron transmission simulated experiments with slow neutrons up to some hundreds eV. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster.
180. Oprea C., Oprea A. I., Numerical evaluation of Sn isotope cross sections by photoneutron activation method. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster.
181. Oprea C., Oprea A., Gruia I., Isomer ratio in photofission of  $\text{U}^{238}$ . *Conference of Physics*, June 20, 2014, Bucharest, Romania, oral presentation.
182. Oprea C., Oprea A., Mihul A., Photonuclear cross section and isomer ratio in photoneutron reactions on natural Sn. *Conference of Physics*, June 20, 2014, Bucharest, Romania, oral presentation.
183. Oprea C., Oprea I., Mihul A., Numerical evaluation of light nuclei cross-sections by new neutron activation method. *Conference of Physics*, June 20, 2014, Bucharest, Romania, oral presentation.
184. Popescu I., Stihi C., Ene A., Cucu-Man S., Todoran R., Radulescu C., Dulama I.D., Chilian A., Atmospheric deposition of major and trace elements in Romania studied by NAA and AAS: Moss Survey 2010/2011. *27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
185. Qarri F., Lazo P., Bekteshi L., Stafilov T., Frontasyeva M., Harmens H., the effect of sampling scheme in the survey of atmospheric deposition of heavy metals in albania by using moss biomonitoring. The 5th EuCheMS – Chemistry Congress, August 31- September 4, 2014, Istanbul, Turkey.
186. Ruskov I., Development of universal monitor of low intensity neutron+gamma radiation fields”, *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
187. Ruskov I., TANGRA - a setup for basic and applied neutron-nuclear research, *EC-JRC-IRMM*, July 22, 2014, Retieseweg, Geel, Belgium, invited talk.
188. Ruskov I., TANGRA–setup for Investigation of Standard Nuclear Reactions Induced by 14.1 MeV Tagged Neutrons. THEORY-3: Scientific Workshop on Nuclear Fission dynamics and the Emission of Prompt Neutrons and Gamma Rays, *EC-JRC-IRMM*, Opatija, Croatia, invited talk,
189. Skoy V.R. Kopatch Yu.N., Ruskov I., A versatile multi-detector gamma-ray spectrometry system for investigation of neutron induced reactions. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
190. Špirić Z., Stafilov T., Vučković I., Kušan V., Barišić D., Vekić B., Šmit Z., Glad M., Frontasyeva M., Croatia participated in the ICP Vegetation survey since 2005. *27th UNECE ICP Task Force Meeting*, January 28-30, 2014, Paris, France.
191. Telezhnikov S.A., Ahmadov G., Kopatch Yu.N., Granja C., Pospisil S., Energy calibration of timepix pixels below 60 keV. *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster.
192. Toderas M, Oprea A., Cadar. D., Oprea M., Transboundary cooperation in watershed areas (Danube Basin case). *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster
193. Vary M., Huran J., Perny M., Micolack M., Aly V., Packa J., Kobzev A.P. Study of Al/a-SiC/c-Si(p)/Al structure by PECVD. *40th IEEE Photovoltaic Specialist Conference*. June 8-13, 2014, Denver, Colorado, oral presentation.
194. Zeynalov SH., Zeynalova O., Sedyshev P., Shvetsov V., Novel approach to prompt fission neutron investigation, *22nd International Seminar on Interaction of Neutrons with Nuclei (ISINN-22)*, May 27–30, 2014, Dubna, Russia.
195. Zinicovscaia I., Cepoi L., Chiriac T., Valuta A., Rudi L., Mitina T., Frontasyeva M.V., Kirkesali E.I., Culicov O., Gundorina S., Biotechnology for wastewater treatment. Book of Abstracts, *The 5th World Congress Biotechnology-2014*, July 25-27, 2014, Valencia, Spain.
196. Zinicovscaia I., Cepoi L., Valuta A., Rudi L., Frontasyev M., Culicov O., Gundorina S., Mitina T., Biosorption of chromium and nickel from wastewater by microalgae *Nostoc linckia*. *RadChem-2014*, May 11-16, 2014, Marianske Lazne, Czech Republic.
197. Zinicovscaia I., Cepoi L., Valuta A., Rudi L., Frontasyeva M.V., Culicov O., Biosynthesis of selenium and titanium nanoparticles by *Nostoc linckia*. Book of Abstracts, *2nd International Conference on Microbial Biotechnology*, October 9-10, 2014, Chisinau, Moldova.
198. Zontikov A.O., Grozdanov D., Ruskov I., Kopatch Yu.N., Neutron-gamma field intensity and absorbed doses simulation at some points of “Romashka” experimental setup. *22nd International Seminar on Interaction of*



### 3. ПУБЛИКАЦИИ

- Neutrons with Nuclei (ISINN-22)*, Dubna, May 27–30, 2014, Dubna, Russia, poster.
199. Василев А., Хростозова Г., Евстатиева Л., Стрелкова Л.П., Фронтасьева М.В., Изучение элементного состава некоторых болгарских медицинских растений методом эпитеплового нейтронного активационного анализа. *Международная научно-практическая конференция «Аптекарские огороды – вчера, сегодня»*. 19-20 декабря 2014, Москва, Россия.
  200. Кравцова А.В., Накопление тяжелых металлов и других микроэлементов макроводорослями рода *Cystoseira* из прибрежной зоны заповедных акваторий Крыма. *3-я Международная научно-практическая конференция «Биоразнообразия и устойчивое развитие»*, 15-19 сентября, 2014, Симферополь, Россия.
  201. Франк А.И., Оптический эффект ускоряющегося вещества и длинноволновые нейтроны. *XVIII Международного симпозиум «Нанофизика и наноэлектроника»*, 10-14 марта 2014, Нижний Новгород, Россия, приглашенный пленарный доклад.
  202. Фронтасьева М.В., Бояркина А.П., Прокофьев В.Б., Гиндилис Л.М., Поиск космической пыли в природных планшетах с использованием ядерно-физических аналитических методов. *Круглый стол. «Актуальные проблемы общей и космической радиобиологии и астробиологии»*, 28-29 октября 2014, Дубна, Россия, приглашенный доклад.