

## Статьи в зарубежных журналах в 2009 г.

1. Aleksandrova I.P., Sukhovskiy A.A., Ivanov Yu.N., Yablonskaya Yu.E., Vakhrushev S.B. Local and average structure of relaxor  $\text{Na}_{1/2}\text{Bi}_{1/2}\text{TiO}_3$  from the point of view of NMR // *Ferroelectrics*. – 2009. – v.378. – pp. 16–22.
2. Aleksandrovskiy A.S., Vyunyshev A.M., Slabko V.V., Zaitsev A.I., Zamkov A.V. Tunable femtosecond frequency doubling in random domain structure of strontium tetraborate // *Opt. Commun.* – 2009. – Vol. 282. – pp. 2263-2266.
3. Antonova A.B., Chudin O.S., Vasiliev A.D., Pavlenko N.I., Sokolenko V.A., Rubaylo A.I., Semeikin O.V. Chemistry of vinylidene complexes. XVIII. Synthesis and molecular structure of the novel trinuclear  $\mu_3$ -vinylidene complex  $\text{CpReFePt}(\mu_3\text{-C=CHPh})(\text{Co})_6(\text{PPh})_3$  // *Journal of Organometallic Chemistry*. – 2009. – 694. – pp. 127-130.
4. Arkhipkin V.G., Myslivets S.A. Ultranarrow resonance peaks in the transmission and reflection spectra of a photonic crystal cavity with Raman gain // *Phys. Rev. A*. – 2009. – V. 80. – 061802(R)-1-061802(R)-4.
5. Avramov P.V., Fedorov D.G., Irle S., Kuzubov A.A., Morokuma K., Strong Electron Correlations Determine Energetic Stability and Electronic Properties of Er-Doped Goldberg-Type Silicon Quantum Dots, *J. Phys. Chem. C*, 113, 15964–15968 (2009), <http://pubs.acs.org/doi/abs/10.1021/jp904996e>.
6. Balaev A.D., Volkov N.V., Sapronova N.V., Sablina K.A., Vasilyev A.D. Magnetic properties of  $\text{MnGeO}_3$  single crystals with orthorhombic structure // *J. Phys.: Condens. Matter*. – 2009. – V.21. – p.336006.
7. Balaev D.A., Dubrovskiy A.A., Shaykhutdinov K.A., Popkov S.I., and Petrov M.I., The effect of magnetisation relaxation of superconducting grains on time relaxation of the resistance of granular HTSC in constant applied magnetic field. // *Journal of Physics: Conference Series* – 2009. – Vol. 150, pp. 052012.
8. Bolsunovskaya O., German A. Petrakovskii, Mikhail A. Popov. Interaction of two spin subsystems with different wavevectors // *Solid State Comm.* – 2009. – 149. – p. 35-36.
9. Bulgakov E.N. and A.F. Sadreev, Resonance induced by a bound state in the continuum in a two-level nonlinear Fano-Anderson model // *Phys. Rev. B* 80, 115308-7 (2009).
10. Chaudhury R. P., Yen F., Lorenz B., Sun Y. Y., Bezmaternykh L. N., Temerov V. L., and Chu C. W. Magnetoelectric Effect and Spontaneous Polarization in  $\text{HoFe}_3(\text{BO}_3)_4$  and  $\text{Ho}_{0.5}\text{Nd}_{0.5}\text{Fe}_3(\text{BO}_3)_4$  // *Phys. Rev. B*. – 2009. – v.80. – p.104424.
11. Chubukov A.V., Eremin I., and Korshunov M.M., Theory of Raman response of a superconductor with extended s-wave symmetry: Application to the iron pnictides // *Phys. Rev. B* 79, 220501(R) (2009).
12. Chzhan A.V., Patrino G.S., Isaeva T.N. Photo-induced relaxation self-oscillations of stripe structure in  $\text{FeBO}_3$ . // *Defect and Diffusion Forum*.-2009.-V.293.-P.113-117.
13. Chzhan A.V., Vasiliev V.N., Isaeva T.N., Patrino G.S. Research of features magnetic permeability and domain structure in  $\alpha\text{-Fe}_2\text{O}_3\text{:Ga}$  crystals near the Morin transition. // *Solid State Phenomena*.-2009.-V.152-153.-P.29-32.
14. Davydov V.Yu., Klochikhin A.A., Smirnov A.N., Strashkova I.Yu., Krylov A.S., Hai Lu, William J. Schaff, Lee H.-M., Hong Y.-L., Gwo S. Selective excitation of  $E_1(\text{LO})$  and  $A_1(\text{LO})$  phonons with large wave vectors in the Raman spectra of hexagonal  $\text{InN}$ . // *Phys. Rev. B*. – 2009. – V.80. – P. 081204.
15. Demontoux F., B. Le Crom, G. Ruffi, JP. Wigneron, J.P Grant, Mironov, V.L., Electromagnetic characterization of soil-litter media - Application to the simulation of the microwave emissivity of the

- ground surface in forests // *European Physical Journal - Applied Physics*, vol. 44, no. 3, pp. 303-315, 2008.
16. Donkov A., Eremin I., Knolle J., and Korshunov M.M., Electron-Phonon Interaction and Phonon Renormalization in the Lamellar Cobaltate  $\text{NaCoO}_2$  // *J. Supercond. Nov. Magn.* 22, 37 (2009).
  17. Drokina T., G. Petrakovskii, L. Keller, J. Schefer, D. Ivanov. Magnetic structure and properties of pyroxene  $\text{NaFeGe}_2\text{O}_6$  // *Rare Metals*. – 2009. - v.28. – pp. 398-400.
  18. Edelman Irina and Janis Kliava, Oxide glasses with magnetic nanoparticles: transparent magnets (Faraday rotation and electron magnetic resonance studies) // *Phys. Status Solidi B*, 246, No. 10, 2216–2231, DOI 10.1002/pssb.200945169.
  19. Fedorov A.S. and A.F. Sadreev, Ab-initio investigation of thermoactivated directional transport of hydrogen molecules inside narrow carbon nanotubes // *Physica Status Solidi (b)* Vol. 246, pp. 2598–2601 (2009).
  20. Fedorov A.S. and A.F. Sadreev, Thermoactivated transport of molecules  $\text{H}_2$  in narrow single-wall carbon nanotubes // *Eur. Phys. J. B*69, 363-368 (2009).
  21. Fedorov A.S., Sorokin P.B., Kuzubov A. A.. Ab-initio study of hydrogen chemical adsorption on the platinum surface/carbon nanotube join system // *Physica Status Solidi B*. – 2008. – V.245, №8. – P. 1546-1551.
  22. Fedorov D.G., Avramov P.V., Jensen J.H., Kitaura K., Analytic gradient for the adaptive frozen orbital bond detachment in the fragment molecular orbital method // *Chem. Phys. Lett.*, 477, 169-175 (2009).
  23. Fokina V.D., Gorev M.V., Kocharova A.G., Pogoreltsev E.I., Flerov I.N. Phase transitions and thermodynamic properties of  $(\text{NH}_4)_3\text{VO}_2\text{F}_4$  cryolite // *Solid State Sciences*. – 2009. – Vol. 11.- N 4. - pp. 836-840.
  24. Gavriiliuk A. P., Isaev I. L., Karpov S. V., Krasnov I. V., Shaparev N. Ya. Brownian Dynamic of Laser Cooling and Crystallization of Electron-ion Plasma // *Phys. Rev. E*. - 2009. - V. 80. - P.054401-1-054401-6.
  25. Gavriilyuk A.P., Karpov S.V. Processes in Resonant Domains of Metal Nanoparticle Aggregates and Optical Nonlinearity of Aggregates in Pulsed Laser Fields // *Applied Physics B*. - 2009. - V. 67, N4 - P. 163-173.
  26. Gorev M., Bondarev V., Flerov I., Maglione M., Simon A., Sciau Ph., Boulos M., Guillemet-Fritsch S. Thermal expansion, polarization and phase diagrams of  $\text{Ba}_{1-y}\text{Bi}_2\text{y}/_3\text{Ti}_{1-x}\text{Zr}_x\text{O}_3$  и  $\text{Ba}_{1-y}\text{La}_y\text{Ti}_{1-y}/_4\text{O}_3$  compounds // *J.Phys. Condens. Matter*.– 2009. – Vol.21. – N 7. – pp. 075902-075909.
  27. Haiding Mo, Nelson Christie S., Bezmaternykh L. N., and Temerov V. T. Magnetic structure of the field-induced multiferroic  $\text{GdFe}_3(\text{BO}_3)_4$  // *Phys. Rev. B*. – 2008. – v.78. – p.214407 (9pp).
  28. Hancock J. N., G. Chabot-Couture, Y. Li, G. A. Petrakovski, K. Ishii, I. Jarrige, J. Mizuki, T. P. Devereaux, and M. Greven. Resonant inelastic x-ray scattering in electronically quasi-zero-dimensional  $\text{CuB}_2\text{O}_4$  // *Phys. Rev. B*. – 2009.- v. 80. – p. 092509 (4pp).
  29. Isaenko L.I., Merkulov A.A., Melnikova S.V., Pashkov V.M., Tarasova A.Yu. Effect of the  $\text{K} \leftrightarrow \text{Rb}$  substitution on structure and phase transition in mixed  $\text{K}_x\text{Rb}_{1-x}\text{Pb}_2\text{Br}_5$  crystals // *Cryst.Growth and Design*. – 2009. - Vol. 9. – №5. - pp. 2248-2251.
  30. Ivanova O., Edelman I., Ivantsov R., Zabluda V., Zaikovskiy V., Stepanov S. Nanostructures based on glasses doped with 3d and 4f elements // *Solid State Phenomena* Vol. 152-153 (2009) pp. 221-224, <http://www.scientific.net> (2009) Trans Tech Publications, Switzerland.
  31. Kazak N.V., Ivanova N.B., Michel C.R., Ovchinnikov S.G., G.Pashkevich Yu., Balaev A.D., Bondarenko G.V. Magnetic and transport properties of  $\text{Gd}_{0.9}\text{A}_{0.1}\text{CoO}_{3-\delta}$  (A = Ba, Sr) // *JMMM*. 321, 1266-1271 (2009).

32. Kazak N.V., Ivanova N.B., Rudenko V.V., Ovchinnikov S.G., Vasil'ev A.D., Knyasev Yu.V. Conductivity study of  $\text{Co}_3\text{O}_2\text{BO}_3$  and  $\text{Co}_{3-x}\text{Fe}_x\text{O}_2\text{BO}_3$  oxyborates // *Solid State Phenomena*. – 2009. – V. 152-153. – pp. 104-107.
33. Kolovsky A.R., H.-J.Korsch, and E.-M.Graefe, Bloch oscillations of Bose-Einstein condensates: Quantum counterpart of dynamical instability // *Phys. Rev. A* 80, 023617 (2009).
34. Korshunov M.M., Eremin I., Efremov D.V., Maslov D.L., and Chubukov A.V., Nonanalytic Spin Susceptibility of a Fermi Liquid: The Case of Fe-Based Pnictides // *Phys. Rev. Lett.* 102, 236403 (2009).
35. Krakhalev M.N., Prishchepa O.O., Zyryanov V.Ya. Inverse mode of ionic-surfactant method of director reorientation inside nematic droplets // *Mol. Cryst. Liq. Cryst.* – 2009. - V. 512. – P. 152/[1998]–157/[2003].
36. Kveglis L.I., Abylkalykova R.B., Noskov F.M., Arkhipkin V.G., Musikhin V.A., Cherepanov V.N., Niavro A.V. Local electron structure and magnetization in  $\square$ - $\text{Fe}_{86}\text{Mn}_{13}\text{C}$  // *Superlattices and Microstructures*. – 2009.- V.46. - P.114-120.
37. Lyubutin I.S., Ovchinnikov S.G., Gavriluk A.G., Struzhkin V.V. Spin-crossover-induced Mott transition and the other scenarios of metallization in 3d metal compounds // *Phys. Rev. B* – (2009). – V.79.- P.085125.
38. Malakhovskii A.V., Edelman I.S., Sukhachev A.L., Voronov V.N. Magneto-optical activity of f-f transitions in elpasolite  $\text{Rb}_2\text{NaDyF}_6$  // *Optical Material*.- 2009. – V 32. – pp. 243-246.
39. Malakhovskii A.V., Sukhachev A.L., Gnatchenko S.L., Kachur I.S., Piryatinskaya V.G., Temerov V.L., Krylov A.S., Edelman I.S. Spectroscopic properties and energy levels of  $\text{Yb}^{3+}$  ion in huntite structure. // *Journal of Alloys and Compounds*. – 2009. – v.476. – pp. 64-69.
40. Malakhovskii A.V., Vasil'ev A.D., Zabluda N.V., Leont'ev A.A., Temerov V.L., Gudim I.A. Violation of axial symmetry of optical properties in the trigonal crystal  $\text{Nd}:\text{GdFe}_{2.1}\text{Ga}_{0.9}(\text{BO}_3)_4$  // *Phys. Letters A*. – 2009. – 373. – pp. 1683-1686.
41. Mazalov L.N., Sokolov V.V., Kryuchkova N.A., Vovk E., Filatova I.Yu., Abramova G.M. X-ray electron study of the structure of complex Copper–Chromium disulfides  $\text{CuCr}_{1-x}\text{V}_x\text{S}_2$  // *J. of Structural Chemistry*. – 2009. - V.50. - n.3 – p.461-468.
42. Mikhlin Y., Likhatski M., Karacharov A., Zaikovski V., Krylov A. Formation of gold and gold sulfide nanoparticles and mesoscale intermediate structures in the reactions of aqueous  $\text{HAuCl}_4$  with sulfide and citrate ions // *Physical chemistry chemical physics*. – 2009. – V. 11, No 26. – P.5445-5454.
43. Mironov V.L., Kosolapova L.G., and Fomin S.V., Physically and Mineralogically Based Spectroscopic Dielectric Model for Moist Soils // *IEEE Trans. Geosci. Remote Sens.*, vol. 47, no. 7, part 1, pp.2059-2070, 2009.
44. Myagkov V.G., O.A. Bayukov, L.E. Bykova, G.N. Bondarenko. The  $\gamma$ -Fe formation in epitaxial  $\text{Cu}(001)/\text{Fe}(001)$  thin films by the solid-state synthesis: Structural and magnetic features // *JMMM*. - 2009. - V.321. - № 14. – pp. 2260-2264.
45. Myagkov V.G., Zhigalov V.C., Bykova L.E., Bondarenko G.N. Long-range chemical interaction in solid-state synthesis: chemical interaction between Ni and Fe in epitaxial  $\text{Ni}(001)/\text{Ag}(001)/\text{Fe}(001)$  trilayers// *Int. J. SHS*.- 2009.-V.18, N2.- P. 117 – 124.
46. Nazmitdinov R. G., K. N. Pichugin, M. Valín-Rodríguez, Spin control in semiconductor quantum wires: Rashba and Dresselhaus interaction // *Phys. Rev. B* 79, 193303-4 (2009).
47. Nesterov A.I., Ovchinnikov S.G. Spin crossover: the quantum phase transition induced by high pressure // *Pis'ma v ZhETF*, vol. 90, iss. 7, pp.580-583 (2009).
48. Pankrats A., G. Petrakovskii, A. Kartashev, E. Eremin, and V. Temerov. Low-temperature magnetic phase diagram of  $\text{HoFe}_3(\text{BO}_3)_4$  holmium ferroborate: a magnetic and heat capacity study // *J. Phys.: Condens. Matter*. – 2009.- v. 21. – p. 436001 (5pp).

49. Parshin A.M., Nazarov V.G., Zyryanov V.Ya, Shabanov V.F. / Bipolyar-homogeneous structural phase transition in nematic droplets formed in the polymer matrix in a magnetic field // *Crystallography reports*, 2009, Vol. 54. No 7. P. 1191-1196.
50. Patrin G.S., Polyakova K.P., Patrusheva T.N., Velikanov D.A., Volkov N.V., Balaev D.A., Patrin K.G., and Klabukov A.A. Synthesis and Magnetic Properties of Pr<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub> Manganite Films. // *Solid State Phenomena*. – 2009. – V. 152-153. – pp. 100-103.
51. Popov A.K., Myslivets S.A. Transformable broad-band transparency and amplification in negative-index films // *Appl. Phys. Lett.* – 2008. – V. 93. – 191117-1 – 191117-3.
52. Popov A.K., Myslivets S.A. and Shalaev V.M. Resonant nonlinear optics of backward waves in negative-index metamaterials // *Applied Physics B: Lasers and Optics*. – 2009. – V. 96. P. 315–323.
53. Popov A.K., Myslivets S.A., and Shalaev V.M. Coherent nonlinear optics and quantum control in negative-index metamaterials // *J.Opt. A: Pure Appl.Opt.* – 2009. –V. 11. – P. 114028 -1 - 114028 - 13.
54. Popov A.K., Myslivets S.A., and Shalaev V.M. Microscopic mirrorless negative-index optical parametric oscillator // *Optics Letters*. – 2009. –V. 34, Issue 8. – P. 1165-1167.
55. Popov A.K., Myslivets S.A., and Shalaev V.M. Plasmonics: nonlinear optics, negative phase and transformable transparency. *Plasmonics: Nanoimaging, Nanofabrication, and their Applications V*, edited by Satoshi Kawata, Vladimir M. Shalaev, Din Ping Tsai. // *Proc. of SPIE*. – 2009. – V. 7395. –P. 73950Z1-73950Z1.
56. Popova M. N. and Stanislavchuk T. N., Malkin B. Z., Bezmaternykh L. N. Optical spectroscopy of PrFe<sub>3</sub>(BO<sub>3</sub>)<sub>4</sub>: Crystal-field and anisotropic Pr-Fe exchange interactions. // *Physical Review B*. – 2009. – v.80. – p.195101.
57. Popova M. N., Stanislavchuk T. N., Malkin B. Z., and Bezmaternykh L. N. Breaking of the selection Rules for Optical Transitions in the Dielectric PrFe<sub>3</sub>(BO<sub>3</sub>)<sub>4</sub> Crystal by a Praseodymium-Iron Exchange Interaction. // *PRL*. – 2009. – v.102. – p.187403.
58. Rasch J. C. E., Boehm M., Ritter C., Mutka H., Schefer J., Keller L., Abramova G. M., Cervellino A., and Leoffler J. F. Magnetoelastic coupling in triangular lattice antiferromagnet CuCrS<sub>2</sub> // *Phys.Rev.B*. – 2009. - v.80. - n10. – p.104431.
59. Rasch J. C.E., Sheptyakov D.V., Schefer J., Keller L., Boehm M., Gozzo F., Volkov N.V. , Sablina K.A., Petrakovskii G.A., Grimmer H., Conder K., Loffler J.F. Structural properties of Pb<sub>3</sub>Mn<sub>7</sub>O<sub>15</sub> determined from high-resolution synchrotron powder diffraction. // *Journal of Solid State Chemistry*. – 2009. – v. 182. – pp. 1188–1192.
60. Sadreev A.F., Vortices in the ground state of Spinor Bose-Einstein condensate, pp. 121-136, contributed article in book “Complex Phenomena in Nanoscale Systems”, Edited by G. Casati and D. Matrasulov // *Nato Science, Series B, Springer*, 2009.
61. Saprionova N.V., Volkov N.V., Sablina K.A., Petrakovskii G.A., Bayukov O.A., Vorotynov A.M., Velikanov D.A., Bovina A.F., Vasiliev A.D., Bondarenko G.V. Synthesis of MnGeO<sub>3</sub> polycrystalline and single-crystal samples and comparative analysis of their magnetic properties // *Phys. Status Solidi*. – 2009. – B246. - №1. – pp. 206-214.
62. Sheftel E.N., Iskhakov R.S, Komogortsev S.V., Sidorenko P.K., Perov N.S. Effects of heat treatment conditions on magnetic properties and structural features of nanocrystalline Fe<sub>79</sub>Zr<sub>10</sub>Ni<sub>11</sub> films // *Solid State Phenomena*.- 2009.-Vol.152-153.- pp 70-74.
63. Val'kov V.V. and Korovushkin M.M. Energy structure of high-temperature superconductors with the intersite Coulomb interaction // *European Physical Journal B* – 2009. – V.69. P.219.
64. Vasiliev A.D., Melnikova S.V., Isaenko L.I. Orthorhombic aluminium oxyfluoride AlOF // *Acta Cryst.* – 2009. – C65. – pp. i20-i22.

65. Volkov N.V., Eremin E.V., Patrin G.S., Kim P.D. Magnetic tunnel junction in the current-in-plane geometry: Magnetoresistance; photovoltaic effect. // *Rare Metals*. – 2009. – v. 28 (Spec. Issue). – pp. 170-173.
66. Volkov N.V., Eremin E.V., Tsikalov V.S., Patrin G.S., Kim P.D., Yu Seong-Cho, Dong-Hyun Kim, and Nguyen Chau. Current-driven channel switching and colossal positive magnetoresistance in the manganite-based structure, // *J. Phys. D: Appl. Phys.* – 2009. – V. 42. – p.065005 (6pp).
67. Volkov N.V., Lee C.G., Kim P.D., Eremin E.V. and Patrin G.S. Optically driven conductivity and magnetoresistance in a manganite-based tunnel structure. // *J. Phys. D: Appl. Phys.* – 2009. – v.42. – p. 205009 (4 pp).
68. Volova T.G., Mironov P.V., Vasiliev A.D. Physicochemical properties of multicomponent poly(hydroxyalkanoates) // *Biophysics*. – 2007. – V. 52. - №3. – pp. 293-297.
69. Vorotytnov A., Abramova G., Popov M., Petrakovskii G., Bovina A., Sokolov V., Mita Y. Magnetic resonance in  $\text{FexMn1-xS}$  single crystals // *Appl. Phys.*-2009. – V 106. – pp. 073909-073913.