# Sergey B Vakhrushev

List of Publications by Year
in descending order



| 110 | 3,315 | 159585 30 | 149698 56 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 115 | 115 | 115 | 2079 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Phase transitions and soft modes in sodium bismuth titanate. Ferroelectrics, 1985, 63, 153-160. | 0.6 | 268 |
| 2 | Long-Time Relaxation of the Dielectric Response in Lead Magnoniobate. Physical Review Letters, 1995, 74, 1681-1684. | 7.8 | 263 |
| 3 | The origin of antiferroelectricity in PbZrO3. Nature Communications, 2013, 4, 2229. | 12.8 | 251 |
| 4 | Local and long range polar order in the relaxor-ferroelectric compoundsPbMg1/3Nb2/3O3andPbMg0.3Nb0.6Ti0.1O3. Physical Review B, 2001, 65, . | 3.2 | 183 |
| 5 | Inelastic neutron scattering study of the relaxor ferroelectric PbMg Nb O at high temperatures. European Physical Journal B, 1999, 11, 13-20. | 1.5 | 129 |
| 6 | Glassy phenomena in disordered perovskite-like crystals. Ferroelectrics, 1989, 90, 173-176. | 0.6 | 127 |
| 7 | Low-frequency dielectric response of PbMg1/3Nb2/3O3. Journal of Physics Condensed Matter, 1992, 4, 3671-3677. | 1.8 | 113 |
| 8 | Reassessment of the Burns temperature and its relationship to the diffuse scattering, lattice dynamics, and thermal expansion in relaxor‹ mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" | | |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The high-temperature structure of lead magnoniobate. Journal of Physics Condensed Matter, 1994, 6, 4021-4027. | 1.8 | 57 |
| 20 | Freezing and melting of mercury in porous glass. Physical Review B, 1995, 52, 4772-4774. | 3.2 | 50 |
| 21 | X-ray study of the kinetics of field induced transition from the glass-like to the ferroelectric phase in lead magnoniobate. Solid State Communications, 1997, 103, 477-482. | 1.9 | 48 |
| 22 | Diffuse neutron scattering in relaxor ferroelectric PbMg1/3Nb2/3O3. Physical Chemistry Chemical Physics, 2005, 7, 2340. | 2.8 | 43 |
| 23 | Structural Heterogeneity and Diffuse Scattering in Morphotropic Lead Zirconate-Titanate Single Crystals. Physical Review Letters, 2012, 109, 097603. | 7.8 | 43 |
| 24 | Critical scattering and incommensurate phase transition in antiferroelectric PbZrO3 under pressure. Scientific Reports, 2017, 7, 41512. | 3.3 | 43 |
| 25 | Calorimetric and dielectric studies of ferroelectric sodium nitrite confined in a nanoscale porous glass matrix. Journal of Chemical Physics, 2005, 123, 084708. | 3.0 | 42 |
| 26 | Lattice dynamics and antiferroelectricity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PbZrO</mml:mi><mml:mn>3</mml:mn></mml:msub></m by x-ray and Brillouin light scattering. Physical Review B, 2014, 90, . | 3.2 | 39 |
| 27 | Local atomic structure of relaxor ferroelectric solids determined by pulsed neutron and x-ray scattering. Ferroelectrics, 1997, 199, 103-113. | 0.6 | 36 |
| 28 | Na23spin-lattice relaxation of sodium nitrite in confined geometry. Physical Review B, 2004, 70, . | 3.2 | 36 |
| 29 | Ferroelectric phase transitions in sodium nitrite nanocomposites. Journal of Electroceramics, 2009, 22, 270-275. | 2.0 | 31 |
| 30 | Structure and properties of confined sodium nitrite. European Physical Journal E, 2003, 12, 21-24. | 1.6 | 30 |
| 31 | X-ray Analysis and Computer Modeling of the Structure of `Relaxor' Ferroelectrics Pb3MgNb2O9 and Pb2ScTaO6 in the Paraelectric State. Journal of Applied Crystallography, 1995, 28, 385-391. | 4.5 | 28 |
| 32 | Ferroelectric phase transitions in materials embedded in porous media. Scripta Materialia, 1999, 12, 963-966. | 0.5 | 27 |
| 33 | Effect of electric field on neutron scattering in lead magnoniobate. Physics of the Solid State, 1998, 40, 1728-1733. | 0.6 | 26 |
| 34 | Translational dynamics of water in the nanochannels of oriented chrysotile asbestos fibers. Physical Review E, 2005, 71, 061502. | 2.1 | 23 |
| 35 | Local and Average Structure of Relaxor Na<sub>1/2</sub>Bi<sub>1/2</sub>TiO<sub>3</sub>from the Point of View of NMR. Ferroelectrics, 2009, 378, 16-22. | 0.6 | 23 |
| 36 | Field induced kinetic ferroelectric phase transition in lead magnoniobate. Ferroelectrics, 1996, 184, 209-215. | 0.6 | 22 |

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| 37 | Ferroelectric phase transitions in materials embedded in porous media. Ferroelectrics, Letters Section, 1996, 20, 143-147. | 1.0 | 20 |
| 38 | Two-mode behavior of the PbMg1/3Nb2/3O3 relaxor. Physics of the Solid State, 2010, 52, 889-893. | 0.6 | 16 |
| 39 | Lattice dynamics in the paraelectric phase of PbHfO<sub>3</sub>studied by inelastic x-ray scattering. Journal of Physics Condensed Matter, 2015, 27, 335901. | 1.8 | 15 |
| 40 | Neutron diffraction study of NaNO2 ferroelectric nanowires. Physica B: Condensed Matter, 2004, 350, E1119-E1121. | 2.7 | 14 |
| 41 | Evolution of Structure of PbMg1/3Nb2/3O3 in the Vicinity of the Burns Temperature. AIP Conference Proceedings, 2002, , . | 0.4 | 13 |
| 42 | Diffusion of benzene confined in the oriented nanochannels of chrysotile asbestos fibers. Physical Review E, 2005, 72, 051502. | 2.1 | 13 |
| 43 | Temperature dependences of the order parameter for sodium nitrite embedded into porous glasses and opals. Physics of the Solid State, 2010, 52, 1092-1097. | 0.6 | 13 |
| 44 | Critical neutron scattering in a uniaxial relaxor Sr0.6Ba0.4Nb2O6. Physics of the Solid State, 2013, 55, 334-341. | 0.6 | 13 |
| 45 | Diffuse scattering anisotropy and inhomogeneous lattice deformations in the lead magnoniobate relaxor PMN above the Burns temperature. Physical Review B, 2012, 85, . | 3.2 | 12 |
| 46 | Structure evolution and formation of a pre-melted state in NaNO 2 confined within porous glass. Applied Physics A: Materials Science and Processing, 2002, 74, s1001-s1003. | 2.3 | 11 |
| 47 | Structure of KD 2 PO 4 Embedded in a Porous Glass. Ferroelectrics, 2003, 286, 213-219. | 0.6 | 11 |
| 48 | Phonons in PbMg 1/3 Nb 2/3 O 3 Measured by Inelastic Neutron Scattering. Ferroelectrics, 2003, 282, 9-19. | 0.6 | 10 |
| 49 | Temperature Dependence of the Local Structure in Pb Containing Relaxor Ferroelectrics. AIP Conference Proceedings, 2003, , . | 0.4 | 10 |
| 50 | Atomic motion in Se nanoparticles embedded into a porous glass matrix. European Physical Journal B, 2006, 54, 211-216. | 1.5 | 10 |
| 51 | Structure and dielectric response of Na1 â^' x K x NO2 nanocomposite solid solutions. Physics of the Solid State, 2008, 50, 1548-1554. | 0.6 | 10 |
| 52 | Low-temperature evolution of local polarization properties of PbZr0.65Ti0.35O3 thin films probed by piezoresponse force microscopy. Applied Physics Letters, 2014, 104, . | 3.3 | 10 |
| 53 | Dielectric response of potassium nitrate in a restricted geometry. Composites Part B: Engineering, 2016, 94, 322-326. | 12.0 | 10 |
| 54 | Temperature dependent conductivity and broadband dielectric response of precursor-derived Nb2O5. Ceramics International, 2020, 46, 9512-9518. | 4.8 | 10 |

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| 55 | Electric field control of antiferroelectric domain pattern. Physical Review B, 2021, 103, . | 3.2 | 10 |
| 56 | 23Na NMR in the relaxor ferroelectric Na1/2Bi1/2TiO3. Physics of the Solid State, 2006, 48, 1120-1123. | 0.6 | 9 |
| 57 | 23Na NMR study of the local order in the Na1/2Bi1/2TiO3 structure in a weak magnetic field. Physics of the Solid State, 2008, 50, 496-501. | 0.6 | 9 |
| 58 | Acoustic phonons in chrysotile asbestos probed by high-resolution inelastic x-ray scattering. Solid State Communications, 2009, 149, 589-592. | 1.9 | 9 |
| 59 | Magnetic phase transition in confined MnO nanoparticles studied by polarized neutron scattering. Physical Review B, 2010, 81, . | 3.2 | 9 |
| 60 | Neutron powder diffraction and single crystal X-ray magnetic resonant and non-resonant scattering studies of the doped multiferroic Tb(Bi)MnO3. European Physical Journal B, 2012, 85, 1. | 1.5 | 9 |
| 61 | Structural peculiarities of (PbMg1/3Nb2/3O3)1-x-(PbTiO3)xsolid solutions. Ferroelectrics, 1999, 235, 143-149. | 0.6 | 8 |
| 62 | Investigation of longitudinal vibrations of -O-H groups in chrysotile asbestos by neutron scattering and polarized infrared spectroscopy. Physics of the Solid State, 2011, 53, 416-420. | 0.6 | 7 |
| 63 | Glass-like structure of a lead-based relaxor ferroelectric. Journal of Applied Crystallography, 2012, 45, 1309-1313. | 4.5 | 7 |
| 64 | Dielectric properties of magnetic-ferroelectric CoOâ€“NaNO2â€“porous glass nanocomposite. Physics of the Solid State, 2017, 59, 2036-2044. | 0.6 | 7 |
| 65 | The Technique of Studying X-Ray Scattering over Wide Temperature Range in an Electric Field. Physics of the Solid State, 2018, 60, 963-966. | 0.6 | 7 |
| 66 | Inelastic and critical neutron scattering in the ergodic phase of the relaxor ferroelectric PbMg 1/3 Nb 2/3 O 3. Applied Physics A: Materials Science and Processing, 2002, 74, s989-s991. | 2.3 | 6 |
| 67 | Lattice Dynamics of PbMg 1/3 Nb 2/3 O 3 (PMN): Shell-Model Calculations. Ferroelectrics, 2003, 282, 21-27. | 0.6 | 6 |
| 68 | Low-temperature dynamics of ferroelectric domains in PbZr0.3Ti0.7O3 epitaxial thin films studied by piezoresponse force microscopy. Applied Physics Letters, 2015, 107, . | 3.3 | 6 |
| 69 | Critical scattering of synchrotron radiation in lead zirconateâ€“titanate with low titanium concentrations. Physics of the Solid State, 2015, 57, 2441-2446. | 0.6 | 6 |
| 70 | Structural Peculiarities of the Intermediate Phase in Zr-Rich Lead Zirconate Titanate. Physics of the Solid State, 2019, 61, 1772-1778. | 0.6 | 6 |
| 71 | Structure of disordered lead indoniobate PbIn1/2Nb1/2O3. Journal of Structural Chemistry, 1997, 38, 486-487. | 1.0 | 5 |
| 72 | Multiscale local ordering in the prototypical uniaxial relaxor Sr<sub>0.6</sub>Ba<sub>0.4</sub>Nb<sub>2</sub>O<sub>6</sub> single crystal at room temperature. Journal of Physics Condensed Matter, 2019, 31, 175401. | 1.8 | 5 |

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| 73 | Thermally tunable dielectric performance of t-ZrO2 stabilized amorphous Si(Pb,Zr)OC ceramic nanocomposites. Materials Chemistry and Physics, 2022, 277, 125495. | 4.0 | 5 |
| 74 | Critical X-Ray Scattering in Mixed Piezoelectric Material PbZr<sub>0</sub><sub>.6</sub>Ti<sub>0.4</sub>O<sub>3</sub>. Solid State Phenomena, 2015, 245, 211-216. | 0.3 | 4 |
| 75 | Pre-transitional evolution of central peaks and transverse acoustic phonon branch in single crystal lead zirconate titanate with Ti concentration 0.7%. Journal of Physics: Conference Series, 2016, 769, 012070. | 0.4 | 4 |
| 76 | Space-charge polarisation dielectric behaviour of precursor derived monoclinic HfO2. Ceramics International, 2022, 48, 13063-13070. | 4.8 | 4 |
| 77 | Peculiar electric properties of polarized layer in alkaline silicate glasses. Journal of the American Ceramic Society, 2022, 105, 3418-3427. | 3.8 | 4 |
| 78 | Anomalous structural behaviour of the high-temperature superconducting compound La1.8Sr0.2CuO4-y. Solid State Communications, 1988, 65, 1167-1170. | 1.9 | 3 |
| 79 | Disorder and anharmonicity in simple and complex perovskites. Ferroelectrics, 1999, 235, 87-96. | 0.6 | 3 |
| 80 | Unique features of the crystal structure of the (PbMg1/3Nb2/3O3)0.6-(PbTiO3)0.4 solid solution. Physics of the Solid State, 1999, 41, 1172-1174. | 0.6 | 3 |
| 81 | E-T Phase Diagrams for PbMg1/3Nb2/3O3-PbTiO3 Single Crystals. Ferroelectrics, 2006, 339, 137-146. | 0.6 | 3 |
| 82 | Investigation into the evolution of the structure of K1â^'x LixTa1â^'y NbyO3 single crystals under variations in temperature. Crystallography Reports, 2007, 52, 440-446. | 0.6 | 3 |
| 83 | The negative phonon confinement effect in nanoscopic sodium nitrite. Nanotechnology, 2009, 20, 395706. | 2.6 | 3 |
| 84 | Inelastic and Quasielastic Neutron Scattering in PbMg1/3Nb2/3O3Above the Burns Temperature. Ferroelectrics, 2010, 400, 372-386. | 0.6 | 3 |
| 85 | Peculiarities of diffuse synchrotron radiation scattering in the SBN-60 single crystal at room temperature. St Petersburg Polytechnical University Journal Physics and Mathematics, 2015, 1, 235-238. | 0.3 | 3 |
| 86 | Domain structures and correlated out-of-plane and in-plane polarization reorientations in Pb(Zr0.96Ti0.04)O3 single crystal via piezoresponse force microscopy. AIP Advances, 2016, 6, . | 1.3 | 3 |
| 87 | Composition dependence of the diffuse scattering in cubic PbZr<sub>1-x</sub>Ti<sub>x</sub>O<sub>3</sub>. Ferroelectrics, 2016, 503, 45-51. | 0.6 | 3 |
| 88 | Structural study of Pb(Mg1/3Nb2/3)O3at low temperatures. Ferroelectrics, Letters Section, 1997, 23, 45-53. | 1.0 | 2 |
| 89 | X-Ray Mn K line shifts in manganese oxide nanoparticles. Technical Physics Letters, 2015, 41, 1205-1207. | 0.7 | 2 |
| 90 | Neutron diffraction study of the (BiFeO3)1â^'x(PbTiO3)xsolid solution: nanostructured multiferroic system. Journal of Physics Condensed Matter, 2015, 27, 046004. | 1.8 | 2 |

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| 91 | Incommensurate instability and diffuse scattering at Brillouin zone boundary in Zr-rich lead zirconate titanate. Ferroelectrics, 2019, 538, 65-73. | 0.6 | 2 |
| 92 | Combined Real-Time Study of Dielectric Response and Piezoresponse of Pb(Mg1/3Nb2/3)O3 Relaxor in an Electric Field. Physics of the Solid State, 2020, 62, 1873-1879. | 0.6 | 2 |
| 93 | Infralow Frequency Dielectric Spectroscopy of PMN Relaxor. Springer Proceedings in Physics, 2021, , 45-53. | 0.2 | 2 |
| 94 | Study of the formation processes of a domain nanostructure in relaxor ferroelectrics. Physics of Particles and Nuclei Letters, 2011, 8, 1061-1062. | 0.4 | 1 |
| 95 | Temperature Dependence of Ferroelectric Properties of the Potassium Lithium Tantalate K<sub>1â^'x</sub>Li<sub>x</sub>TaO<sub>3</sub>Obtained with Piezoresponse Force Microscopy Technique. Ferroelectrics, 2014, 469, 73-78. | 0.6 | 1 |
| 96 | Influence of a Poling Procedure on Dynamics of Ferroelectric Domains in Thin PbZr<sub>0.3</sub>Ti<sub>0.7</sub>O<sub>3</sub> Film at Low Temperatures. Solid State Phenomena, 0, 245, 217-222. | 0.3 | 1 |
| 97 | Phonon dispersion calculations using the Vaks model in antiferroelectric lead zirconate. Journal of Advanced Dielectrics, 2015, 05, 1550016. | 2.4 | 1 |
| 98 | Shell model analysis of the low-energy lattice dynamics in PbHfO3. Ferroelectrics, 2018, 534, 110-113. | 0.6 | 1 |
| 99 | X-Ray Scattering by Antiphase Ferroelectric Domain Walls in the Antiferroelectric Phase of the PbZr$$_{0.985}$$Ti$$_{0.015}$$O$$_3$$. Lecture Notes in Computer Science, 2018, , 683-690. | 1.3 | 1 |
| 100 | Mechanism of ferroelectric phase transition in ultra-dispersed sodium nitrite particles. Ferroelectrics, 2021, 575, 75-83. | 0.6 | 1 |
| 101 | Inelastic Neutron Scattering by TA Phonons in Heavily Doped Gallium Arsenide. Physics of the Solid State, 2005, 47, 1060. | 0.6 | 0 |
| 102 | Monte carlo simulation and optimization of three-axis neutron spectrometer for the PIK reactor. Crystallography Reports, 2007, 52, 552-557. | 0.6 | 0 |
| 103 | Tribute to Professor Alexander S. Sigov. Ferroelectrics, 2016, 503, 3-3. | 0.6 | 0 |
| 104 | An analysis of the phonon dispersion curves of lead hafnate in the cubic phase using lattice-dynamical models. St Petersburg Polytechnical University Journal Physics and Mathematics, 2016, 2, 171-174. | 0.3 | 0 |
| 105 | Structural Evolution in Morphotropic Lead Zirconate Titanate. , 2018, , . | | 0 |
| 106 | Crystallography Based on Synchrotron Radiation: Experiments of Russian Users of the ESRF BM01 Diffraction Beam Line. Journal of Surface Investigation, 2018, 12, 395-407. | 0.5 | 0 |
| 107 | 10.1007/s11451-008-3017-5. , 2010, 50, 496. | | 0 |
| 108 | A System for Simultaneous Application of Uniaxial Strain and Electric Field to the Crystal Sample in Wide Temperature Range for X-Ray Scattering Experiments. , 2021, , . | | 0 |

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| 109 | Mode Coupling at around M-Point in PZT. Materials, 2022, 15, 79. | 2.9 | 0 |
| 110 | Antiferrodistortive Soft Mode in PbZr0.024Ti0.976O3 Crystal. Physics of the Solid State, 2021, 63, 1840-1846. | 0.6 | 0 |