

# Alexander Belov

## List of Publications by Year in descending order

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41  
papers

530  
citations

687363

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677142

22  
g-index

41  
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41  
docs citations

41  
times ranked

402  
citing authors

| #  | ARTICLE                                                                                                                                                                                                  | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1  | Fast Polarization Reversal in Polycrystalline Ferroelectric Thin Films: The Origin of Size Effects. <i>Ferroelectrics</i> , 2019, 544, 27-32.                                                            | 0.6 | 1         |
| 2  | 1/E2 Law: Solution of the Unsolved Problem in the Physics of Ferroelectrics. <i>JETP Letters</i> , 2018, 108, 221-225.                                                                                   | 1.4 | 3         |
| 3  | First-principles estimate of Peierls energy in sodium chloride. <i>Crystallography Reports</i> , 2017, 62, 270-274.                                                                                      | 0.6 | 0         |
| 4  | Low-frequency spectra of dislocation paths in NaCl crystals in the electron spin resonance scheme. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2014, 78, 1086-1091.                    | 0.6 | 4         |
| 5  | Determination of the positions of impurity centers in a dislocation core in a NaCl crystal from magnetoplasticity spectra. <i>JETP Letters</i> , 2014, 99, 82-88.                                        | 1.4 | 13        |
| 6  | Strain and x-ray diffraction from axial nanowire heterostructures. <i>Physical Review B</i> , 2012, 85, .                                                                                                | 3.2 | 31        |
| 7  | The Evaluation of Activation Parameters for Ferroelectric Switching in Soft PZT Ceramics. <i>Ferroelectrics</i> , 2009, 391, 42-50.                                                                      | 0.6 | 7         |
| 8  | Creep in Soft PZT: The Effect of Internal Fields. <i>Ferroelectrics</i> , 2009, 391, 12-21.                                                                                                              | 0.6 | 12        |
| 9  | Micromechanics of Ferroelectrics: From Domain Walls to Piezoceramic Devices. <i>Ferroelectrics</i> , 2007, 351, 79-87.                                                                                   | 0.6 | 6         |
| 10 | Simulation of microstructure evolution in polycrystalline ferroelectricsâ€“ferroelasticsâ€†. <i>Acta Materialia</i> , 2006, 54, 3463-3469.                                                               | 7.9 | 24        |
| 11 | Viscoplastic models for ferroelectric ceramics. <i>Journal of the European Ceramic Society</i> , 2005, 25, 2567-2571.                                                                                    | 5.7 | 19        |
| 12 | Viscoplastic behaviour of perovskite type ferroelectrics. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 118, 7-11.                                   | 3.5 | 13        |
| 13 | Relaxation kinetics in amorphous carbon films: An insight from atomic scale simulation. <i>Thin Solid Films</i> , 2005, 482, 74-78.                                                                      | 1.8 | 5         |
| 14 | Formation and evolution of sp <sup>2</sup> clusters in amorphous carbon networks as predicted by molecular dynamics annealing simulations. <i>Diamond and Related Materials</i> , 2005, 14, 1014-1018.   | 3.9 | 9         |
| 15 | Evolution of sp <sup>2</sup> networks with substrate temperature in amorphous carbon films: Experiment and theory. <i>Physical Review B</i> , 2005, 72, .                                                | 3.2 | 61        |
| 16 | ta-C deposition simulations: Film properties and time-resolved dynamics of film formation. <i>Physical Review B</i> , 2003, 68, .                                                                        | 3.2 | 58        |
| 17 | Simulation of the non-equilibrium processes for tetrahedral amorphous carbon: Deposition and structural relaxation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 202, 242-248. | 1.4 | 10        |
| 18 | Atomistic study of ion-beam deposition conditions for hard amorphous carbon. <i>Computational Materials Science</i> , 2003, 27, 16-22.                                                                   | 3.0 | 4         |

| #  | ARTICLE                                                                                                                                                                                                                                 | IF  | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Atomic scale simulation of structural relaxation processes in tetrahedral amorphous carbon. Computational Materials Science, 2003, 27, 30-35.                                                                                           | 3.0 | 14        |
| 20 | Domain Wall Interactions and Transformation of Domain Pattern Near the Improper Ferroelastic Phase Transition of K <sub>2</sub> Ba(NO <sub>2</sub> ) <sub>4</sub> . Ferroelectrics, 2003, 290, 133-140.                                 | 0.6 | 6         |
| 21 | Calculation of intrinsic stresses in amorphous carbon films grown by molecular dynamics simulation: from atomic to macroscopic scale. Computational Materials Science, 2002, 24, 154-158.                                               | 3.0 | 17        |
| 22 | Atomic processes at bonded Si-interfaces studied by molecular dynamics: tailoring densities and bandgaps?. Computational Materials Science, 2002, 24, 33-41.                                                                            | 3.0 | 4         |
| 23 | Elastic constants of tetrahedral amorphous carbon films: the effect of intrinsic stresses. Surface and Coatings Technology, 2002, 151-152, 128-132.                                                                                     | 4.8 | 6         |
| 24 | Elastic Properties of Diamond-Like Amorphous Carbon Films Grown by Computer Simulation of Ion-Beam Deposition Process. Materials Research Society Symposia Proceedings, 2000, 648, 1.                                                   | 0.1 | 1         |
| 25 | Enhanced semi-empirical potentials in molecular dynamics simulations of wafer bonding. Materials Science in Semiconductor Processing, 2000, 3, 129-135.                                                                                 | 4.0 | 6         |
| 26 | Atomic structures of dislocation intersections at (001) low-angle twist and shear boundaries in silicon. Philosophical Magazine Letters, 1999, 79, 107-114.                                                                             | 1.2 | 2         |
| 27 | Dissociation of screw dislocations in (001) low-angle twist boundaries: A source of the 30° partial dislocations in silicon. Philosophical Magazine Letters, 1999, 79, 531-538.                                                         | 1.2 | 28        |
| 28 | Extended Point Defect Structures at Intersections of Screw Dislocations in Si: A Molecular Dynamics Study. Physica Status Solidi A, 1999, 171, 159-166.                                                                                 | 1.7 | 13        |
| 29 | Atomistic study of the (001), 90° twist boundary in silicon. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1998, 77, 55-65.                                                      | 0.6 | 16        |
| 30 | Atomistic study of the (001), 90° twist boundary in silicon. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1998, 77, 55-65.                                                      | 0.6 | 1         |
| 31 | Molecular dynamics modelling of silicon wafer bonding. Computational Materials Science, 1997, 9, 108-115.                                                                                                                               | 3.0 | 4         |
| 32 | Universal weight functions for elastically anisotropic, angularly inhomogeneous media with notches or cracks. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 73, 1621-1646. | 0.6 | 7         |
| 33 | Critical Angles in Bending of Rotationally Inhomogeneous Elastic Wedges. Journal of Applied Mechanics, Transactions ASME, 1995, 62, 429-440.                                                                                            | 2.2 | 11        |
| 34 | Higher order weight functions in fracture mechanics of inhomogeneous anisotropic solids. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 72, 1471-1483.                      | 0.6 | 6         |
| 35 | Scaling regimes and anomalies of wedge disclination stresses in anisotropic rotationally inhomogeneous media. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1993, 68, 1215-1231. | 0.6 | 10        |
| 36 | Anomalies of compatibility stresses in elastically anisotropic solids with wedge-like inhomogeneities. Physica Scripta, 1992, T44, 113-121.                                                                                             | 2.5 | 2         |

| #  | ARTICLE                                                                                                                                                                                                                              | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | A wedge disclination along the vertex of the wedge-like inhomogeneity in an elastically anisotropic solid. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1992, 65, 1429-1444. | 0.6 | 6         |
| 38 | Dislocations Emerging at Planar Boundaries. Modern Problems in Condensed Matter Sciences, 1992, 31, 391-446.                                                                                                                         | 0.1 | 19        |
| 39 | Real temperature of nanoparticles in electron microscope beams. Philosophical Magazine Letters, 1991, 63, 275-279.                                                                                                                   | 1.2 | 37        |
| 40 | The analogue of the Carothers' effect and stress anomalies in the theory of disclinations. Philosophical Magazine Letters, 1991, 64, 207-210.                                                                                        | 1.2 | 9         |
| 41 | Elastic fields of dislocations piercing the interface of an anisotropic bicrystal. Physica Status Solidi (B): Basic Research, 1983, 119, 565-578.                                                                                    | 1.5 | 25        |