

# Pavel Borisov

## List of Publications by Year in descending order

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65  
papers

3,363  
citations

201385

27  
h-index

138251

58  
g-index

68  
all docs

68  
docs citations

68  
times ranked

4482  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetoelectric Switching of Exchange Bias. Physical Review Letters, 2005, 94, 117203.	2.9	417
2	Antiferromagnetic Spin Seebeck Effect. Physical Review Letters, 2016, 116, 097204.	2.9	248
3	Tilt engineering of spontaneous polarization and magnetization above 300 K in a bulk layered perovskite. Science, 2015, 347, 420-424.	6.0	181
4	Crystal structure and multiferroic properties of Gd-substituted BiFeO <sub>3</sub> . Applied Physics Letters, 2008, 93, .	1.5	172
5	Magnetoelectric exchange bias systems in spintronics. Applied Physics Letters, 2006, 89, 202508.	1.5	163
6	Doping strategies for increased performance in BiFeO <sub>3</sub> . Journal of Magnetism and Magnetic Materials, 2009, 321, 1692-1698.	1.0	161
7	Coexistence of Antiferromagnetic and Spin Cluster Glass Order in the Magnetoelectric Relaxor Multiferroic $\text{PbFe}_{0.5}\text{Nb}_{1.5}\text{O}_3$ . Physical Review Letters, 2010, 105, 257202.	2.9	156
8	(Sr,Mn)TiO <sub>3</sub> : A Magnetoelectric Multiglass. Physical Review Letters, 2008, 101, 165704.	2.9	151
9	Effect of Gd substitution on the crystal structure and multiferroic properties of BiFeO <sub>3</sub> . Acta Materialia, 2009, 57, 5137-5145.	3.8	144
10	Electric in-plane polarization in multiferroic CoFe <sub>2</sub> O <sub>4</sub> /BaTiO <sub>3</sub> nanocomposite tuned by magnetic fields. Nature Communications, 2013, 4, 2051.	5.8	126
11	Designing switchable polarization and magnetization at room temperature in an oxide. Nature, 2015, 525, 363-366.	13.7	122
12	Effect of Sm substitution on ferroelectric and magnetic properties of BiFeO <sub>3</sub> . Scripta Materialia, 2010, 62, 238-241.	2.6	95
13	Large off-diagonal magnetoelectric coupling in the quantum paraelectric antiferromagnet $\text{EuTiO}_3$ . Physical Review B, 2010, 81, .	11.91	91
14	Converse magnetoelectric effect in CoFe <sub>2</sub> O <sub>4</sub> /BaTiO <sub>3</sub> composites with a core-shell structure. Smart Materials and Structures, 2011, 20, 075006.	1.8	74
15	Electrically controlled exchange bias for spintronic applications. Journal of Applied Physics, 2005, 97, 10C514.	1.1	73
16	Superconducting quantum interference device setup for magnetoelectric measurements. Review of Scientific Instruments, 2007, 78, 106105.	0.6	68
17	Spin-lattice coupling in multiferroic $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$ thin films. Applied Physics Letters, 2009, 94, .	1.5	54
18	Magnetoelectric properties of 500-nm $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$ films. Physical Review B, 2016, 93, .	1.1	46

#	ARTICLE	IF	CITATIONS
19	Multiglass order and magnetoelectricity in Mn <sup>2+</sup> doped incipient ferroelectrics. European Physical Journal B, 2009, 71, 407-410.	0.6	44
20	Structural, ferroelectric and magnetic properties of Bi <sub>0.85</sub> Sm <sub>0.15</sub> FeO <sub>3</sub> perovskite. Crystal Research and Technology, 2011, 46, 238-242.	0.6	43
21	Crystal structure and magnetic properties of Bi <sub>0.8</sub> (Gd <sub>1-x</sub> Ba <sub>x</sub> ) <sub>0.2</sub> FeO <sub>3</sub> (x= 0, 0.5, 1) multiferroics. Journal Physics D: Applied Physics, 2009, 42, 045418.	1.3	40
22	Preparation, characterization, and electrical properties of epitaxial NbO <sub>2</sub> thin film lateral devices. Journal Physics D: Applied Physics, 2015, 48, 335308.	1.3	38
23	Structural and magnetic properties of epitaxial delafossite CuFeO <sub>2</sub> thin films grown by pulsed laser deposition. Journal of Applied Physics, 2015, 117, .	1.1	37
24	Electrically induced insulator to metal transition in epitaxial SmNiO <sub>3</sub> thin films. Applied Physics Letters, 2014, 105, .	1.5	35
25	(Sr,Mn)TiO <sub>3</sub> a magnetoelectrically coupled multiglass. Journal of Physics Condensed Matter, 2008, 20, 434216.	0.7	34
26	Engineered spatial inversion symmetry breaking in an oxide heterostructure built from isosymmetric room-temperature magnetically ordered components. Chemical Science, 2014, 5, 1599-1610.	3.7	30
27	Artificial Construction of the Layered Ruddlesden-Popper Manganite La <sub>2</sub> Sr <sub>2</sub> Mn <sub>3</sub> O <sub>10</sub> by Reflection High Energy Electron Diffraction Monitored Pulsed Laser Deposition. Journal of the American Chemical Society, 2012, 134, 7700-7714.	6.6	29
28	Study of Ni <sup>2+</sup> Mn <sup>2+</sup> Ga phase formation by magnetron sputtering film deposition at low temperature onto Si substrates and LaNiO <sub>3</sub> Pb(Ti,Zr)O <sub>3</sub> buffer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 6-10.	0.9	27
29	Coherent control of injection currents in high-quality films of Bi <sub>2</sub> Se <sub>3</sub> . Applied Physics Letters, 2015, 106, .	1.5	26
30	ENHANCED MAGNETIZATION IN BiFeO <sub>3</sub> /BaTiO <sub>3</sub> MULTILAYERS: AN INTERFACE EFFECT?. Integrated Ferroelectrics, 2008, 100, 165-176.	0.3	25
31	Exchange bias and ferromagnetic coercivity in heterostructures with antiferromagnetic Cr <sub>2</sub> O <sub>3</sub> . Journal of Applied Physics, 2011, 110.	1.1	25
32	Magnetic and polar phases and dynamical clustering in multiferroic layered solid solutions CuCr <sub>1-x</sub> Mn <sub>x</sub> O <sub>3</sub> . Journal of Applied Physics, 2011, 110.	1.1	23
33	Perpendicular exchange bias and its control by magnetic, stress and electric fields. European Physical Journal B, 2005, 45, 197-201.	0.6	22
34	MAGNETOELECTRIC Cr <sub>2</sub> O <sub>3</sub> FOR SPINTRONIC APPLICATIONS. Integrated Ferroelectrics, 2008, 99, 69-76.	0.3	21
35	Epitaxial growth and magnetoelectric relaxor behavior in multiferroic 0.8Pb(Fe <sub>1/2</sub> Nb <sub>1/2</sub> )O <sub>3</sub> 0.2Pb(Mg <sub>1/2</sub> W <sub>1/2</sub> )O <sub>3</sub> thin films. Applied Physics Letters, 2009, 95, 132507.	1.5	19
36	Multiferroic and magnetoelectric materials—novel developments and perspectives. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2228-2232.	1.7	19

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37	Room temperature ferroelectricity in fluoroperovskite thin films. <i>Scientific Reports</i> , 2017, 7, 7182.	1.6	19
38	Structural and electrical characterization of polycrystalline NbO <sub>2</sub> thin film vertical devices grown on TiN-coated SiO <sub>2</sub> /Si substrates. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	19
39	Coexistence of spontaneous ferroelectricity and weak ferromagnetism in Bi <sub>0.8</sub> Pb <sub>0.2</sub> FeO <sub>2.9</sub> perovskite. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 155207.	0.7	18
40	Comparative study of the structural and optical properties of epitaxial CuFeO <sub>2</sub> and CuFe <sub>1-x</sub> GaxO <sub>2</sub> delafossite thin films grown by pulsed laser deposition methods. <i>Thin Solid Films</i> , 2017, 626, 110-116.	0.8	18
41	Spin cluster glass and magnetoelectricity in Mn-doped KTaO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	17
42	Multiferroically composed exchange bias systems. <i>Phase Transitions</i> , 2006, 79, 1123-1133.	0.6	16
43	Application of the magnetoelectric effect to exchange bias. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 2313-2315.	1.0	16
44	Thin Cr <sub>2</sub> O <sub>3</sub> Films for Magnetoelectric Data Storage Deposited by Reactive E-beam Evaporation. <i>Ferroelectrics</i> , 2008, 370, 147-152.	0.3	16
45	Growth of M-type hexaferrite thin films with conical magnetic structure. <i>Applied Physics Letters</i> , 2013, 102, 032902.	1.5	16
46	Multiferroic BaCoF <sub>4</sub> in Thin Film Form: Ferroelectricity, Magnetic Ordering, and Strain. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 2694-2703.	4.0	16
47	Search for the Magnetic Monopole at a Magnetoelectric Surface. <i>Physical Review X</i> , 2019, 9, .	2.8	15
48	Multiferroic and magnetoelectric materials – Developments and perspectives. <i>EPJ Web of Conferences</i> , 2012, 29, 00046.	0.1	14
49	Comment on “The Origin of Magnetism in Mn-Doped SrTiO <sub>3</sub> ”, <i>Advanced Functional Materials</i> , 2013, 23, 2229-2230.	7.8	11
50	Deterministic mechanisms of spiking in diffusive memristors. <i>Chaos, Solitons and Fractals</i> , 2021, 149, 110997.	2.5	10
51	Interface-driven magnetoelectric effects in granular CrO <sub>2</sub> . <i>Europhysics Letters</i> , 2010, 91, 17006.	0.7	8
52	Optical detection of carbon dioxide adsorption on epitaxial CuFe <sub>1-x</sub> GaxO <sub>2</sub> Delafossite film grown by pulse laser deposition. <i>Surface Science</i> , 2016, 648, 23-28.	0.8	8
53	Structural properties of Bi <sub>2-x</sub> Mn <sub>x</sub> Se <sub>3</sub> thin films grown via molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	6
54	Phase Diagram of a Three-Dimensional Antiferromagnet with Random Magnetic Anisotropy. <i>Physical Review Letters</i> , 2015, 114, 097201.	2.9	6

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55	Transition from noise-induced to self-sustained current spiking generated by a NbOx thin film threshold switch. Applied Physics Letters, 2021, 118, .	1.5	6
56	Weak ferromagnetism and short range polar order in NaMnF3 thin films. Applied Physics Letters, 2017, 110, 092901.	1.5	5
57	Magnetoelectricity in multiferroically composed multilayers and multiglasses. Journal of Magnetism and Magnetic Materials, 2009, 321, 1785-1789.	1.0	4
58	The role of defects in the electrical properties of NbO2 thin film vertical devices. AIP Advances, 2016, 6, 125006.	0.6	4
59	Multiferroic and Magnetoelectric Materials for Spintronics. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 3-11.	0.2	4
60	Successive antiferromagnetic phase transitions in $\hat{\Gamma}_2$ -MnS probed by the exchange bias effect. Applied Physics Letters, 2009, 94, .	1.5	3
61	Magnetic Anomaly and Dielectric Tunability of (Sr,Mn)TiO <sub>3</sub> Thin Films. Ferroelectrics, 2012, 426, 274-281.	0.3	3
62	Interfacial Magnetoelectric Switching in Multiferroic Heterostructures. Materials Science Forum, 0, 783-786, 1623-1627.	0.3	2
63	STEM Video of Electronically-Driven Metal-Insulator Transitions in Nanoscale NbO <sub>2</sub> Devices. Microscopy and Microanalysis, 2016, 22, 1254-1255.	0.2	2
64	STEM EBIC Mapping of the Metal-Insulator Transition in Thin-film NbO <sub>2</sub> . Microscopy and Microanalysis, 2017, 23, 1428-1429.	0.2	1
65	Terahertz time-domain spectroscopy of magnons in antiferromagnetic MnF <sub>2</sub> (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50		