

S Prokhorenko

List of Publications by Year in descending order

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Version: 2024-02-01

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1,812
citations

394421

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docs citations

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times ranked

2036
citing authors

#	ARTICLE	IF	CITATIONS
1	The Abinitproject: Impact, environment and recent developments. Computer Physics Communications, 2020, 248, 107042.	7.5	369
2	ABINIT: Overview and focus on selected capabilities. Journal of Chemical Physics, 2020, 152, 124102.	3.0	179
3	Discovery of stable skyrmionic state in ferroelectric nanocomposites. Nature Communications, 2015, 6, 8542.	12.8	154
4	Topological spin texture in Janus monolayers of the chromium trihalides Cr(I, Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (Physical Review B, 2020, 101, .	3.2	146
5	Nanoscale Bubble Domains and Topological Transitions in Ultrathin Ferroelectric Films. Advanced Materials, 2017, 29, 1702375.	21.0	110
6	Possible Kitaev Quantum Spin Liquid State in 2D Materials with S Physical Review Letters, 2020, 124, 087205.	7.8	88
7	Emergence of skyrmionium in a two-dimensional Janus monolayer. Physical Review B, 2020, 102, .	10.6	16
8	High-density switchable skyrmion-like polar nanodomains integrated on silicon. Nature, 2022, 603, 63-67.	27.8	79
9	Inverse transition of labyrinthine domain patterns in ferroelectric thin films. Nature, 2020, 577, 47-51.	27.8	71
10	Microscopic origins of the large piezoelectricity of leadfree (Ba,Ca)(Zr,Ti)O ₃ . Nature Communications, 2017, 8, 15944.	12.8	69
11	Topological Defects with Distinct Dipole Configurations in Multilayer Films. Physical Review Letters, 2018, 120, 177601.	7.8	55
12	Conformational Domain Wall Switch. Advanced Functional Materials, 2019, 29, 1807523.	14.9	47
13	Topology and control of self-assembled domain patterns in low-dimensional ferroelectrics. Nature Communications, 2020, 11, 5779.	12.8	37
14	Deterministic Switching of Ferroelectric Bubble Nanodomains. Advanced Functional Materials, 2019, 29, 1808573.	14.9	30
15	Strain engineering of electro-optic constants in ferroelectric materials. Npj Computational Materials, 2019, 5, .	8.7	28
16	Electrocaloric effects in the lead-free Ba(Zr,Ti)O ₃ relaxor ferroelectric from atomistic simulations. Physical Review B, 2017, 96, .	3.2	24
17	Giant electrocaloric response in the prototypical Pb(Mg,Nb)O ₃ relaxor ferroelectric from atomistic simulations. Physical Review B, 2018, 97, .	3.2	24
18	Topological Point Defects in Relaxor Ferroelectrics. Physical Review Letters, 2016, 116, 127601.	7.8	20

#	ARTICLE	IF	CITATIONS
19	Fluctuations and Topological Defects in Proper Ferroelectric Crystals. <i>Physical Review Letters</i> , 2017, 118, 147601.	7.8	20
20	Ferroelectric phase-transition frustration near a tricritical composition point. <i>Nature Communications</i> , 2021, 12, 5322.	12.8	18
21	Freestanding Ferroelectric Bubble Domains. <i>Advanced Materials</i> , 2021, 33, e2105432.	21.0	18
22	Frustration and Self-Ordering of Topological Defects in Ferroelectrics. <i>Physical Review Letters</i> , 2016, 116, 117603.	7.8	17
23	Emergent Berezinskii-Kosterlitz-Thouless Phase in Low-Dimensional Ferroelectrics. <i>Physical Review Letters</i> , 2017, 119, 117601.	7.8	17
24	Berezinskii-Kosterlitz-Thouless phase in two-dimensional ferroelectrics. <i>Physical Review B</i> , 2020, 101, .	3.2	16
25	Quantum-fluctuation-stabilized orthorhombic ferroelectric ground state in lead-free piezoelectric $\text{Ba} \left(\text{O} \right)_3$ <i>Physical Review B</i> , 2019, 99, .	3.2	16
26	Large scale hybrid Monte Carlo simulations for structure and property prediction. <i>Npj Computational Materials</i> , 2018, 4, .	8.7	12
27	Ferroelectric-ferromagnetic multilayers: A magnetoelectric heterostructure with high output charge signal. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	8
28	Prediction of a novel topological multidefect ground state. <i>Physical Review B</i> , 2019, 100, .	3.2	8
29	Hidden phases with neuromorphic responses and highly enhanced piezoelectricity in an antiferroelectric prototype. <i>Physical Review B</i> , 2022, 105, .	3.2	8
30	Electrical Control of Chiral Phases in Electrotoroidic Nanocomposites. <i>Advanced Electronic Materials</i> , 2016, 2, 1500218.	5.1	7
31	Atomic-scale measurement of polar entropy. <i>Physical Review B</i> , 2019, 100, .	3.2	7
32	Controlling topological defect transitions in nanoscale lead zirconate titanate heterostructures. <i>Physical Review Materials</i> , 2021, 5, .	2.4	7
33	$\left(\text{Tj ETQq1 1 0.784314 rgBT / Overflock 10 Tf 50 172 T} \right)$	3.2	5
34	Evidence for Goldstone-like and Higgs-like structural modes in the model $\text{Pb} \left(\text{Mg} \right)_3$ relaxor ferroelectri. <i>Physical Review B</i> , 2020, 102, .	3.2	5
35	Electrocaloric effects in multiferroics. <i>Physical Review B</i> , 2021, 103, .	3.2	4
36	Probing the dynamics of ferroelectric topological oscillators with the electron beam. <i>Microscopy and Microanalysis</i> , 2021, 27, 690-692.	0.4	2

#	ARTICLE	IF	CITATIONS
37	Domain-wall-induced electromagnons in multiferroics. <i>Physical Review Materials</i> , 2022, 6, .	2.4	2
38	Temperature and electric field control of the bandgap in electrotoroidic nanocomposites by large-scale ab initio methods. <i>Ferroelectrics</i> , 2018, 535, 93-105.	0.6	1