

S Prokhorenko

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

1,812
citations

394421

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Hidden phases with neuromorphic responses and highly enhanced piezoelectricity in an antiferroelectric prototype. <i>Physical Review B</i> , 2022, 105, .	3.2	8
2	High-density switchable skyrmion-like polar nanodomains integrated on silicon. <i>Nature</i> , 2022, 603, 63-67.	27.8	79
3	Domain-wall-induced electromagnons in multiferroics. <i>Physical Review Materials</i> , 2022, 6, .	2.4	2
4	Electrocaloric effects in multiferroics. <i>Physical Review B</i> , 2021, 103, .	3.2	4
5	Probing the dynamics of ferroelectric topological oscillators with the electron beam. <i>Microscopy and Microanalysis</i> , 2021, 27, 690-692.	0.4	2
6	Ferroelectric phase-transition frustration near a tricritical composition point. <i>Nature Communications</i> , 2021, 12, 5322.	12.8	18
7	Freestanding Ferroelectric Bubble Domains. <i>Advanced Materials</i> , 2021, 33, e2105432.	21.0	18
8	Controlling topological defect transitions in nanoscale lead zirconate titanate heterostructures. <i>Physical Review Materials</i> , 2021, 5, .	2.4	7
9	Inverse transition of labyrinthine domain patterns in ferroelectric thin films. <i>Nature</i> , 2020, 577, 47-51.	27.8	71
10	The Abinitproject: Impact, environment and recent developments. <i>Computer Physics Communications</i> , 2020, 248, 107042.	7.5	369
11	Topology and control of self-assembled domain patterns in low-dimensional ferroelectrics. <i>Nature Communications</i> , 2020, 11, 5779.	12.8	37
12	Evidence for Goldstone-like and Higgs-like structural modes in the model PbMg_3O_3 relaxor ferroelectric. <i>Physical Review B</i> , 2020, 102, .	3.2	5
13	Emergence of skyrmionium in a two-dimensional CrGe_2Te_4 Janus monolayer. <i>Physical Review B</i> , 2020, 102, .	3.2	5
14	Berezinskii-Kosterlitz-Thouless phase in two-dimensional ferroelectrics. <i>Physical Review B</i> , 2020, 101, .	3.2	16
15	ABINIT: Overview and focus on selected capabilities. <i>Journal of Chemical Physics</i> , 2020, 152, 124102.	3.0	179
16	Possible Kitaev Quantum Spin Liquid State in 2D Materials with S_3 . <i>Physical Review Letters</i> , 2020, 124, 087205.	7.8	88
17	Topological spin texture in Janus monolayers of the chromium trihalides CrI_3 . <i>Physical Review B</i> , 2020, 101, .	3.2	146
18	Atomic-scale measurement of polar entropy. <i>Physical Review B</i> , 2019, 100, .	3.2	7

#	ARTICLE	IF	CITATIONS
19	Prediction of a novel topological multidefect ground state. <i>Physical Review B</i> , 2019, 100, .	3.2	8
20	Deterministic Switching of Ferroelectric Bubble Nanodomains. <i>Advanced Functional Materials</i> , 2019, 29, 1808573.	14.9	30
21	Conformational Domain Wall Switch. <i>Advanced Functional Materials</i> , 2019, 29, 1807523.	14.9	47
22	Strain engineering of electro-optic constants in ferroelectric materials. <i>Npj Computational Materials</i> , 2019, 5, .	8.7	28
23	Topological Defects with Distinct Dipole Configurations in PbTiO_3 Multilayer Films. <i>Physical Review Letters</i> , 2018, 120, 177601.	7.8	55
24	Giant electrocaloric response in the prototypical $\text{Pb}(\text{Mg,Nb})\text{O}_3$ relaxor ferroelectric from atomistic simulations. <i>Physical Review B</i> , 2018, 97, .	3.2	24
25	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
26	Large scale hybrid Monte Carlo simulations for structure and property prediction. <i>Npj Computational Materials</i> , 2018, 4, .	8.7	12
27	Quantum-fluctuation-stabilized orthorhombic ferroelectric ground state in lead-free piezoelectric $\text{Ba}(\text{Zr,Ti})\text{O}_3$. <i>Physical Review B</i> , 2018, 98, .		
28	Nanoscale Bubble Domains and Topological Transitions in Ultrathin Ferroelectric Films. <i>Advanced Materials</i> , 2017, 29, 1702375.	21.0	110
29	Emergent Berezinskii-Kosterlitz-Thouless Phase in Low-Dimensional Ferroelectrics. <i>Physical Review Letters</i> , 2017, 119, 117601.	7.8	17
30	Fluctuations and Topological Defects in Proper Ferroelectric Crystals. <i>Physical Review Letters</i> , 2017, 118, 147601.	7.8	20
31	Electrocaloric effects in the lead-free $\text{Ba}(\text{Zr,Ti})\text{O}_3$ relaxor ferroelectric from atomistic simulations. <i>Physical Review B</i> , 2017, 96, .	3.2	24
32	Microscopic origins of the large piezoelectricity of leadfree $(\text{Ba,Ca})(\text{Zr,Ti})\text{O}_3$. <i>Nature Communications</i> , 2017, 8, 15944.	12.8	69
33	Electrical Control of Chiral Phases in Electrotoroidic Nanocomposites. <i>Advanced Electronic Materials</i> , 2016, 2, 1500218.	5.1	7
34	Topological Point Defects in Relaxor Ferroelectrics. <i>Physical Review Letters</i> , 2016, 116, 127601.	7.8	20
35	Frustration and Self-Ordering of Topological Defects in Ferroelectrics. <i>Physical Review Letters</i> , 2016, 116, 117603.	7.8	17
36	Discovery of stable skyrmionic state in ferroelectric nanocomposites. <i>Nature Communications</i> , 2015, 6, 8542.	12.8	154

#	ARTICLE	IF	CITATIONS
37	Ferroelectric-ferromagnetic multilayers: A magnetoelectric heterostructure with high output charge signal. Journal of Applied Physics, 2014, 116, . Finite-temperature properties of	2.5	8
38	Finite-temperature properties of $\chi = \frac{1}{\mu_0} \frac{\partial^2 \langle M \rangle}{\partial H^2} \Big _{T=0}$ $\chi = \frac{1}{\mu_0} \frac{\partial^2 \langle M \rangle}{\partial H^2} \Big _{T=0}$ $\chi = \frac{1}{\mu_0} \frac{\partial^2 \langle M \rangle}{\partial H^2} \Big _{T=0}$		