

Sergey Lisenkov

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

2,045
citations

279798

23
h-index

233421

45
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50
all docs

50
docs citations

50
times ranked

2205
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite-Temperature Properties of Multiferroic BiFeO_3 . Physical Review Letters, 2007, 99, 227602.	7.8	210
2	Bridging the Macroscopic and Atomistic Descriptions of the Electrocaloric Effect. Physical Review Letters, 2012, 108, 167604.	7.8	209
3	Phase stability and structural temperature dependence in powdered multiferroic BiFeO_3 . Physical Review B, 2008, 78, .	3.2	154
4	Ferromagnetism in multiferroic BiFeO_3 . A first-principles-based study. Physical Review B, 2010, 81, .	3.2	116
5	Competing phases in BiFeO_3 films under compressive epitaxial strain. Physical Review B, 2010, 81, .	3.2	98
6	Multicaloric effect in ferroelectric PbTiO_3 from first principles. Physical Review B, 2013, 87, .	3.2	83
7	Finite-temperature properties of $(\text{Ba,Sr})\text{TiO}_3$ systems from atomistic simulations. Physical Review B, 2006, 73, .	3.2	80
8	Geometric frustration in compositionally modulated ferroelectrics. Nature, 2011, 470, 513-517.	27.8	75
9	Phase diagrams of BaTiO_3 superlattices. Physical Review B, 2013, 87, .	3.2	67
10	Strain dependence of polarization and piezoelectric response in epitaxial BiFeO_3 thin films. Journal of Physics Condensed Matter, 2012, 24, 162202.	1.8	66
11	Elastic excitations in BaTiO_3 single crystals and ceramics: Mobile domain boundaries and polar nanoregions observed by resonant ultrasonic spectroscopy. Physical Review B, 2013, 87, .	3.2	63
12	Electric-Field-Induced Paths in Multiferroic BiFeO_3 from Atomistic Simulations. Physical Review Letters, 2009, 103, 047204.	7.8	62
13	Strain dependence of polarization and piezoelectric response in epitaxial SrTiO_3 thin films. Journal of Physics Condensed Matter, 2012, 24, 162202.	3.2	62
14	Thickness-Dependent Polarization of Strained BiFeO_3 Films with Constant Tetragonality. Physical Review Letters, 2012, 109, 267601.	7.8	58
15	Intrinsic electrocaloric effect in ferroelectric alloys from atomistic simulations. Physical Review B, 2009, 80, .	3.2	50
16	Magnetic Anisotropy and Engineering of Magnetic Behavior of the Edges in Co Embedded Graphene Nanoribbons. Physical Review Letters, 2012, 108, 187208.	7.8	50
17	Critical Thickness for Antiferroelectricity in PbZrO_3 . Physical Review Letters, 2015, 115, 097601.	7.8	48
18	Finite-temperature properties of antiferroelectric PbZrO_3 from atomistic simulations. Physical Review B, 2015, 91, .	3.2	48

#	ARTICLE	IF	CITATIONS
19	Properties of multiferroic BiFeO_3 thin films under high magnetic fields from first principles. <i>Physical Review B</i> , 2009, 79, .	3.2	12
20	Calculation of the LSDA+ U functional using the hybrid B3LYP and HSE functionals. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 356-363.	1.5	35
21	Unusual static and dynamical characteristics of domain evolution in ferroelectric superlattices. <i>Physical Review B</i> , 2009, 79, .	3.2	34
22	Kittel Law in BiFeO_3 Ultrathin Films: A First-Principles-Based Study. <i>Physical Review Letters</i> , 2010, 105, 147603.	7.8	26
23	Effects of codoping on the ferromagnetic enhancement in ZnO. <i>Physical Review B</i> , 2011, 83, .	3.2	26
24	Elastocaloric Effect in Carbon Nanotubes and Graphene. <i>Nano Letters</i> , 2016, 16, 7008-7012.	9.1	24
25	Pyro-paraelectric and flexocaloric effects in barium strontium titanate: A first principles approach. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	22
26	Emergence of central mode in the paraelectric phase of ferroelectric perovskites. <i>MRS Communications</i> , 2013, 3, 41-45.	1.8	20
27	Thermally Mediated Mechanism to Enhance Magnetoelectric Coupling in Multiferroics. <i>Physical Review Letters</i> , 2015, 114, 177205.	7.8	20
28	Scaling law for electrocaloric temperature change in antiferroelectrics. <i>Scientific Reports</i> , 2016, 6, 19590.	3.3	20
29	Electrocaloric effect in PbZrO_3 thin films with antiferroelectric-ferroelectric phase competition. <i>Computational Materials Science</i> , 2017, 129, 44-48.	3.0	20
30	Phase Switching as the Origin of Large Piezoelectric Response in Organic-Inorganic Perovskites: A First-Principles Study. <i>Physical Review Letters</i> , 2020, 125, 207601.	7.8	20
31	Phase evolution in the ferroelectric relaxor $\text{Ba}_0.7\text{Sr}_0.3\text{TiO}_3$ from atomistic simulations. <i>Physical Review B</i> , 2019, 99, .	3.2	14
32	Highly tunable piezocaloric effect in antiferroelectric PbZrO_3 . <i>Physical Review B</i> , 2016, 93, .	3.2	11
33	Prediction of high-strain polar phases in antiferroelectric PbZrO_3 from a multiscale approach. <i>Physical Review B</i> , 2020, 102, .	3.2	11
34	Tunability of Structure, Polarization, and Band Gap of High TC Organic-Inorganic Ferroelectrics by Hydrostatic Pressure: First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16296-16303.	3.1	11
35	Lattice dynamics in $\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3$: study by THz and IR spectroscopy and <i>ab initio</i> simulations. <i>Phase Transitions</i> , 2010, 83, 955-965.	1.3	10
36	Emergence of ferroelectricity in antiferroelectric nanostructures. <i>Nanotechnology</i> , 2016, 27, 195705.	2.6	10

#	ARTICLE	IF	CITATIONS
37	Magnetic graphene: A new class of cages formed from graphene sheets and carbon nanotubes. Physical Review B, 2010, 82, .	3.2	9
38	Depolarizing field in ultrathin electrocalorics. Physical Review B, 2015, 92, .	3.2	9
39	Unveiling Electrocaloric Potential of Antiferroelectrics with Phase Competition. Advanced Theory and Simulations, 2018, 1, 1800096.	2.8	9
40	High-frequency intrinsic dynamics of the electrocaloric effect from direct atomistic simulations. Physical Review B, 2018, 97, .	3.2	9
41	Enhancement of electrocaloric response through quantum effects. Physical Review B, 2017, 96, . Tuning the electrocaloric effect by varying Sr concentration in ferroelectric $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$	3.2	7
42	Comparative study of ferroelectric functional performance on ferroelectric BaTiO_3 and PbTiO_3	2.4	7
43	Unusual Properties of Hydrogen-Bonded Ferroelectrics: The Case of Cobalt Formate. Physical Review Letters, 2022, 128, 077601.	2.4	6
44	Structural, Electrical, and Electromechanical Properties of Inverse Hybrid Perovskites from First-Principles: The Case of $(\text{CH}_3\text{NH}_3)_3\text{Bi}_2\text{O}_7$. Journal of Physical Chemistry C, 2021, 125, 8794-8802.	7.8	6
45	Chemically and electrically tunable spin polarization in ferroelectric Cd-based hybrid organic-inorganic perovskites. Physical Review B, 2021, 104, .	3.1	5
46	Nanoscale properties of PbZrO_3 nanowires: Phase competition for enhanced energy conversion and storage. Computational Materials Science, 2016, 117, 468-471.	3.2	5
47	Isentropic magnetoelectric coupling in planar heterostructures. Applied Physics Letters, 2017, 111, .	3.0	3
48	Ba_3O relaxors: Dynamic ferroelectrics in the gigahertz frequ. Physical Review B, 2020, 102, .	3.3	2
49	Tackling Complex Phenomena in Nanoscale Multiferroics. , 2010, , .	3.2	2
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