

Ilya Grinberg

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4035375/publications.pdf>

Version: 2024-02-01

79
papers

5,223
citations

136950

32
h-index

82547

72
g-index

79
all docs

79
docs citations

79
times ranked

6377
citing authors

#	ARTICLE	IF	CITATIONS
19	Structural and Physical Parameters Controlling the Oxygen Reduction Reaction Selectivity with Carboxylic Acid-Substituted Cobalt Corroles Incorporated in a Porous Carbon Support. Journal of Physical Chemistry C, 2019, 123, 26351-26357.	3.1	23
20	Palladium-Ceria Catalysts with Enhanced Alkaline Hydrogen Oxidation Activity for Anion Exchange Membrane Fuel Cells. ACS Applied Energy Materials, 2019, 2, 4999-5008.	5.1	56
21	Ferroelectric barium titanate derivatives containing Mo and Mg for transparent photovoltaic applications. Journal of Applied Physics, 2019, 126, .	2.5	7
22	Scalable Silver Oxo-Sulfide Catalyst for Electrochemical Water Splitting. ACS Applied Energy Materials, 2019, 2, 788-796.	5.1	7
23	First-Principles Investigation of the Formation of Pt Nanorrafts on a Mo ₂ C Support and Their Catalytic Activity for Oxygen Reduction Reaction. Journal of Physical Chemistry Letters, 2018, 9, 2229-2234.	4.6	29
24	First-principles studies of the local structure and relaxor behavior of $Pb_{1-x}Bi_xO_3$. Physical Review B, 2018, 97, .	3.1	17
25	First-Principles Investigation of Black Phosphorus Synthesis. Journal of Physical Chemistry Letters, 2018, 9, 1759-1764.	4.6	25
26	Investigation of Si ₃ C-SiC interface properties using classical molecular dynamics. Journal of Applied Physics, 2018, 124, .	2.5	7
27	Seeing the forest and the trees. Nature Materials, 2018, 17, 657-658.	27.5	5
28	Na-ion battery cathode materials prepared by electrochemical ion exchange from alumina-coated Li _{1+x} Mn _{0.54} Co _{0.13} Ni _{0.1+y} O ₂ . Journal of Materials Chemistry A, 2018, 6, 14816-14827.	10.3	19
29	Resonant domain-wall-enhanced tunable microwave ferroelectrics. Nature, 2018, 560, 622-627.	27.8	82
30	Slush-like polar structures in single-crystal relaxors. Nature, 2017, 546, 391-395.	27.8	201
31	Getting a charge out of hybrid perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7191-7193.	7.1	12
32	Structural and ferroelectric phase evolution in $Pb_{1-x}Bi_xO_3$. Physical Review B, 2017, 96, .	3.1	17
33	Substantial bulk photovoltaic effect enhancement via nanolayering. Nature Communications, 2016, 7, 10419.	12.8	62
34	Intrinsic ferroelectric switching from first principles. Nature, 2016, 534, 360-363.	27.8	151
35	Photoferroelectric and Photopiezoelectric Properties of Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 1460-1465.	4.6	73
36	Asymmetric Response of Ferroelastic Domain-Wall Motion under Applied Bias. ACS Applied Materials & Interfaces, 2016, 8, 2935-2941.	8.0	11

#	ARTICLE	IF	CITATIONS
37	Ultrafast Terahertz Gating of the Polarization and Giant Nonlinear Optical Response in BiFeO ₃ Thin Films. <i>Advanced Materials</i> , 2015, 27, 6371-6375.	21.0	47
38	Materials Design of Visible-Light Ferroelectric Photovoltaics from First Principles. <i>Ferroelectrics</i> , 2015, 483, 1-12.	0.6	27
39	Ferroelectric polarization reversal via successive ferroelastic transitions. <i>Nature Materials</i> , 2015, 14, 79-86.	27.5	216
40	Band gap engineering strategy via polarization rotation in perovskite ferroelectrics. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	129
41	The structural diversity of AB ₃ compounds with d ⁰ electronic configuration for the B-cation. <i>Journal of Chemical Physics</i> , 2014, 140, 224703.	3.0	55
42	Atomic sublattice decomposition of piezoelectric response in tetragonal PbTiO ₃ and BaTiO ₃ . <i>Physical Review B</i> , 2014, 89, 080401.	3.2	31
43	Semiconducting ferroelectric perovskites with intermediate bands via chemical substitution. <i>Physical Review B</i> , 2014, 89, 080401.	3.2	23
44	Computational Studies of Lead-based Relaxor Ferroelectrics. <i>Ferroelectrics</i> , 2014, 469, 1-13.	0.6	8
45	Perovskite oxides for visible-light-absorbing ferroelectric and photovoltaic materials. <i>Nature</i> , 2013, 503, 509-512.	27.8	1,110
46	Development of a bond-valence based interatomic potential for BiFeO ₃ for accurate molecular dynamics simulations. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 102202.	1.8	47
47	Anisotropic Local Correlations and Dynamics in a Relaxor Ferroelectric. <i>Physical Review Letters</i> , 2013, 110, 147602.	7.8	74
48	Exploration of the intrinsic inertial response of ferroelectric domain walls via molecular dynamics simulations. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	13
49	PREDICTION OF DIELECTRIC DISPERSION FOR LEAD BASED PEROVSKITES AND STUDY OF LOCAL DIELECTRIC RESPONSE IN (0.75Pb(Mg _{1/3} Nb _{2/3})O ₃) _{1-x} (0.25PbTiO ₃) _x . <i>Journal of Advanced Dielectrics</i> , 2012, 02, 1241009.	2.4	5
50	Lattice normal modes and electronic properties of the correlated metal LaNiO ₃ . <i>Physical Review B</i> , 2011, 84, .	3.2	110
51	Multiple dielectric transitions in the PbTiO ₃ -Bi(Zn _{1/2} Ti _{1/2})O ₃ -Bi(Mg _{1/2} Ti _{1/2})O ₃ system. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	10
52	Multiple dielectric transitions in the PbTiO ₃ -Bi(Zn _{1/2} Ti _{1/2})O ₃ -Bi(Mg _{1/2} Ti _{1/2})O ₃ system. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	10
53	Studies of Perovskite Materials for High-Performance Storage Media, Piezoelectric, and Solar Energy Conversion Devices. , 2010, , .		3
54	Pb-free semiconductor ferroelectrics: A theoretical study of Pd-substituted Ba _{1-x} Pd _x TiO ₃ . <i>Physical Review B</i> , 2010, 82, .	3.2	48

#	ARTICLE	IF	CITATIONS
55	Correlations between tetragonality, polarization, and ionic displacement in PbTiO_3 ferroelectric perovskite solid solutions. <i>Physical Review B</i> , 2010, 82, .	3.2	76
56	Molecular Dynamics Study of Dielectric Response in a Relaxor Ferroelectric. <i>Physical Review Letters</i> , 2009, 103, 197601.	7.8	62
57	New Prospects for High Performance SONAR, Chemical Sensor, and Communication Device Materials. , 2009, , .		3
58	New Highly Polar Semiconductor Ferroelectrics through PbTiO_3 Cation-O Vacancy Substitution into PbTiO_3 : A Theoretical Study. <i>Journal of the American Chemical Society</i> , 2008, 130, 17409-17412.	13.7	167
59	Nonmonotonic Composition Dependence of the Dielectric Response of $\text{Ba}_{1-x}\text{Ca}_x\text{ZrO}_3$. <i>Chemistry of Materials</i> , 2008, 20, 5134-5138.	6.7	12
60	Modeling of Materials for Naval SONAR, Pollution Control and Nonvolatile Memory Application. , 2008, , .		0
61	Orbital-Specific Analysis of CO Chemisorption on Transition-Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2008, 112, 1963-1966.	3.1	27
62	Structure and Polarization in the High T_c Ferroelectric $\text{Bi}(\text{Zn},\text{Ti})\text{O}_3 \sim \text{PbTiO}_3$ Solid Solutions. <i>Physical Review Letters</i> , 2007, 98, 107601.	7.8	130
63	Polarization Effects on the Surface Chemistry of PbTiO_3 -Supported Pt Films. <i>Physical Review Letters</i> , 2007, 98, 166101.	7.8	86
64	Nonmonotonic Trends in Bi-Based Ferroelectric Perovskite Solid Solutions. <i>Physical Review Letters</i> , 2007, 98, 037603.	7.8	68
65	Relationship between Local Structure and Relaxor Behavior in Perovskite Oxides. <i>Physical Review Letters</i> , 2007, 99, 267603.	7.8	58
66	Nucleation and growth mechanism of ferroelectric domain-wall motion. <i>Nature</i> , 2007, 449, 881-884.	27.8	340
67	Ferroelectric Phase Transition in Individual Single-Crystalline BaTiO_3 Nanowires. <i>Nano Letters</i> , 2006, 6, 735-739.	9.1	371
68	Adsorbate-Adsorbate Interactions and Chemisorption at Different Coverages Studied by Accurate ab initio Calculations: A CO on Transition Metal Surfaces. <i>Journal of Physical Chemistry B</i> , 2006, 110, 3816-3822.	2.6	41
69	Predicting morphotropic phase boundary locations and transition temperatures in Pb- and Bi-based perovskite solid solutions from crystal chemical data and first-principles calculations. <i>Journal of Applied Physics</i> , 2005, 98, 094111.	2.5	199
70	Silver solid solution piezoelectrics. <i>Applied Physics Letters</i> , 2004, 85, 1760-1762.	3.3	53
71	Local structure and macroscopic properties in $\text{PbMg}_{1-3x}\text{Nb}_{2x}\text{O}_3 \sim \text{PbTiO}_3$ and $\text{PbZn}_{1-3x}\text{Nb}_{2x}\text{O}_3 \sim \text{PbTiO}_3$ solid solutions. <i>Physical Review B</i> , 2004, 70, .	3.2	119
72	Correlations between the Structure and Dielectric Properties of $\text{Pb}(\text{Sc}_{2/3}\text{W}_{1/3})\text{O}_3$ - $\text{Pb}(\text{Ti}/\text{Zr})\text{O}_3$ Relaxors. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	0

#	ARTICLE	IF	CITATIONS
73	Ab initio study of silver niobate. AIP Conference Proceedings, 2003, , .	0.4	19
74	Extending first principles modeling with crystal chemistry: a bond-valence based classical potential. AIP Conference Proceedings, 2003, , .	0.4	6
75	CO on Pt(111) puzzle: A possible solution. Journal of Chemical Physics, 2002, 117, 2264-2270.	3.0	102
76	Relationship between local structure and phase transitions of a disordered solid solution. Nature, 2002, 419, 909-911.	27.8	238
77	Accurate construction of transition metal pseudopotentials for oxides. AIP Conference Proceedings, 2001, , .	0.4	1
78	Quantitative criteria for transferable pseudopotentials in density functional theory. Physical Review B, 2001, 63, .	3.2	34
79	Transferable relativistic Dirac-Slater pseudopotentials. Physical Review B, 2000, 62, 2311-2314.	3.2	91