

Bingcheng Luo

List of Publications by Year in descending order

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55
papers

2,505
citations

304743

22
h-index

197818

49
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56
all docs

56
docs citations

56
times ranked

2427
citing authors

#	ARTICLE	IF	CITATIONS
1	BaTiO ₃ –BiYbO ₃ perovskite materials for energy storage applications. Journal of Materials Chemistry A, 2015, 3, 18146-18153.	10.3	393
2	Fabrication, characterization, properties and theoretical analysis of ceramic/PVDF composite flexible films with high dielectric constant and low dielectric loss. Journal of Materials Chemistry A, 2014, 2, 510-519.	10.3	375
3	High temperature lead-free BNT-based ceramics with stable energy storage and dielectric properties. Journal of Materials Chemistry A, 2020, 8, 683-692.	10.3	167
4	Enhanced Energy-Storage Density and High Efficiency of Lead-Free CaTiO ₃ –BiScO ₃ Linear Dielectric Ceramics. ACS Applied Materials & Interfaces, 2017, 9, 19963-19972.	8.0	145
5	Grain-size dependent dielectric properties in nanograin ferroelectrics. Journal of the American Ceramic Society, 2018, 101, 5487-5496.	3.8	121
6	Electronic structure, optical and dielectric properties of BaTiO ₃ /CaTiO ₃ /SrTiO ₃ ferroelectric superlattices from first-principles calculations. Journal of Materials Chemistry C, 2015, 3, 8625-8633.	5.5	96
7	P(VDF-HFP)/PMMA flexible composite films with enhanced energy storage density and efficiency. Composites Science and Technology, 2017, 151, 94-103.	7.8	93
8	Dielectric response and breakdown behavior of polymer-ceramic nanocomposites: The effect of nanoparticle distribution. Composites Science and Technology, 2017, 145, 105-113.	7.8	86
9	Synthesis, characterization and dielectric properties of surface functionalized ferroelectric ceramic/epoxy resin composites with high dielectric permittivity. Composites Science and Technology, 2015, 112, 1-7.	7.8	80
10	Structural and Electronic Engineering of Ir-Doped Ni-(Oxy)hydroxide Nanosheets for Enhanced Oxygen Evolution Activity. ACS Catalysis, 2021, 11, 5386-5395.	11.2	75
11	A Review on the Conventional Capacitors, Supercapacitors, and Emerging Hybrid Ion Capacitors: Past, Present, and Future. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	74
12	Central metal and ligand effects on oxygen electrocatalysis over 3d transition metal single-atom catalysts: A theoretical investigation. Chemical Engineering Journal, 2022, 427, 132038.	12.7	65
13	Preparation and characterization of carbon foams derived from aluminosilicate and phenolic resin. Carbon, 2011, 49, 1782-1786.	10.3	61
14	Giant permittivity and low dielectric loss of Fe doped BaTiO ₃ ceramics: Experimental and first-principles calculations. Journal of the European Ceramic Society, 2018, 38, 1562-1568.	5.7	54
15	Graphene-like monolayer monoxides and monochlorides. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17213-17218.	7.1	54
16	Multiphase Engineered BNT-Based Ceramics with Simultaneous High Polarization and Superior Breakdown Strength for Energy Storage Applications. ACS Applied Materials & Interfaces, 2021, 13, 28484-28492.	8.0	52
17	Dielectric Enhancement in Graphene/Barium Titanate Nanocomposites. ACS Applied Materials & Interfaces, 2016, 8, 3340-3348.	8.0	47
18	Superhierarchical Inorganic/Organic Nanocomposites Exhibiting Simultaneous Ultrahigh Dielectric Energy Density and High Efficiency. Advanced Functional Materials, 2021, 31, 2007994.	14.9	46

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19	Nanocomposites with enhanced dielectric permittivity and breakdown strength by microstructure design of nanofillers. <i>Composites Science and Technology</i> , 2017, 151, 109-114.	7.8	34
20	The properties of Al ₂ O ₃ coated fine-grain temperature stable BaTiO ₃ -based ceramics sintered in reducing atmosphere. <i>Journal of the American Ceramic Society</i> , 2018, 101, 1245-1254.	3.8	32
21	Multiscale design of high-voltage multilayer energy-storage ceramic capacitors. <i>Journal of the American Ceramic Society</i> , 2018, 101, 1607-1615.	3.8	31
22	Chemical composition and temperature dependence of the energy storage properties of Ba _{1-x} Sr _x TiO ₃ ferroelectrics. <i>Journal of the American Ceramic Society</i> , 2018, 101, 2976-2986.	3.8	24
23	Interfacial electronic properties of ferroelectric nanocomposites for energy storage application. <i>Materials Today Energy</i> , 2019, 12, 136-145.	4.7	23
24	Enhancement of strain by electrically-induced phase transitions in BNKT-based ceramics. <i>Journal of Alloys and Compounds</i> , 2018, 744, 535-543.	5.5	18
25	Influence of Fe doping on the crystal structure, electronic structure and supercapacitance performance of birnessite [(Na, K) _x (Mn ⁴⁺ , Mn ³⁺) ₂ O ₄ ·1.5H ₂ O] with high areal mass loading. <i>Electrochimica Acta</i> , 2018, 291, 31-40.	5.2	17
26	Ferroelectric properties of BaTiO ₃ -BiScO ₃ weakly coupled relaxor energy-storage ceramics from first-principles calculations. <i>Journal of Alloys and Compounds</i> , 2021, 866, 158933.	5.5	17
27	Electronic, dielectric and optical properties of orthorhombic lanthanum gallate perovskite. <i>Journal of Alloys and Compounds</i> , 2017, 708, 187-193.	5.5	16
28	Thermal mismatch strain induced disorder of Y ₂ Mo ₃ O ₁₂ and its effect on thermal expansion of Y ₂ Mo ₃ O ₁₂ /Al composites. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 11778-11785.	2.8	16
29	Hierarchical-structured dielectric permittivity and breakdown performances of polymer-ceramic nanocomposites. <i>Ceramics International</i> , 2018, 44, 843-848.	4.8	15
30	Structural and electronic properties of cubic KNbO ₃ (001) surfaces: A first-principles study. <i>Applied Surface Science</i> , 2015, 351, 558-564.	6.1	14
31	Vortex domain configuration for energy-storage ferroelectric ceramics design: A phase-field simulation. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	13
32	First-principles effective Hamiltonian simulation of ABO ₃ -type perovskite ferroelectrics for energy storage application. <i>Journal of Applied Physics</i> , 2016, 120, 074106.	2.5	11
33	Reentrant relaxor behavior in BaTiO ₃ -Bi(Zn _{2/3} Nb _{1/3})O ₃ ceramics. <i>Journal of the American Ceramic Society</i> , 2017, 100, 511-514.	3.8	11
34	Effect of final pyrolysis temperature on the mechanical and thermal properties of carbon foams reinforced by aluminosilicate. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 558, 446-450.	5.6	10
35	Mechanism of ferroelectric properties of (BaCa)(ZrTi)O ₃ from first-principles calculations. <i>Ceramics International</i> , 2018, 44, 9684-9688.	4.8	10
36	Enhanced temperature stability of electric-field-induced strain in KNN-based ceramics. <i>Journal of Alloys and Compounds</i> , 2019, 786, 498-506.	5.5	9

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37	Novel atomic-scale graphene metamaterials with broadband electromagnetic wave absorption and ultra-high elastic modulus. Carbon, 2022, 196, 146-153.	10.3	9
38	Thermal-mechanical-electrical coupled design of multilayer energy storage ceramic capacitors. Ceramics International, 2017, 43, 12882-12887.	4.8	8
39	Electronic structure, elastic and thermal properties of semiconductor GaX (X = N, P, As, Sb) with zinc blende from first-principles calculation. International Journal of Modern Physics B, 2014, 28, 1450183.	2.0	7
40	Laminated structure-induced high dielectric strength and energy storage density in dielectric composites. Composites Science and Technology, 2019, 173, 61-65.	7.8	7
41	Composition and ionic change capacity variation of surfactant-intercalated MgFe-layered double hydroxides in the one step synthesis. Journal of Sol-Gel Science and Technology, 2014, 69, 26-32.	2.4	6
42	Influence of BaO-CaO-SiO ₂ on dielectric properties and reliability of BaTiO ₃ -based ceramics. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1077-1081.	1.8	6
43	Dielectric, ferroelectric, and thermodynamic properties of silicone oil modified PVDF films for energy storage application. Applied Physics Letters, 2016, 108, .	3.3	6
44	A triatomic carbon and derived pentacarbides with superstrong mechanical properties. IScience, 2022, 25, 104712.	4.1	6
45	Layered Nanosheets: Superhierarchical Inorganic/Organic Nanocomposites Exhibiting Simultaneous Ultrahigh Dielectric Energy Density and High Efficiency (Adv. Funct. Mater. 8/2021). Advanced Functional Materials, 2021, 31, 2170050.	14.9	5
46	Interfacial electronic and structural properties of SiO ₂ (010)/BaTiO ₃ (001) from first-principles calculations. Ceramics International, 2017, 43, 12988-12991.	4.8	4
47	Interfacial Bonding and Electronic Structure between Copper Thiocyanate and Hybrid Organohalide Lead Perovskites for Photovoltaic Application. Journal of Physical Chemistry Letters, 2019, 10, 5609-5616.	4.6	4
48	Homogeneity quantification of nanoparticles dispersion in composite materials. Polymer Composites, 2019, 40, 1000-1005.	4.6	4
49	Enhanced near-ultraviolet and visible light absorption of organic-inorganic halide perovskites by co-doping with cesium and barium: Insight from first-principles calculations. Journal of Solid State Chemistry, 2020, 289, 121477.	2.9	4
50	Electronic, structural and optical properties of cerium and zinc co-doped organic-inorganic halide perovskites for photovoltaic application. Physica B: Condensed Matter, 2021, 603, 412703.	2.7	4
51	Thermally stimulated relaxation and behaviors of oxygen vacancies in SrTiO ₃ single crystals with (100), (110) and (111) orientations. Materials Research Express, 2020, 7, 046305.	1.6	3
52	Electronic structure and optical properties of SnO ₂ /HC(NH ₂) ₂ PbI ₃ interfaces from first-principles calculations. Surfaces and Interfaces, 2021, 23, 100913.	3.0	3
53	Structural, electronic, and optical properties of two-dimensional hafnium monoxide nanosheets. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 130, 114690.	2.7	3
54	Core-shell structure-induced high displacement response in piezoelectric ceramics: A theoretical design. Ceramics International, 2019, 45, 8940-8944.	4.8	2

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55	Tailoring the Dimension of Halide Perovskites Enables Quantum Wires with Enhanced Visible Light Absorption. <i>Journal of Physical Chemistry C</i> , 2020, 124, 11124-11131.	3.1	1