

Hongmei Luo

List of Publications by Year in descending order

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93
papers

5,515
citations

109321

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79698

73
g-index

96
all docs

96
docs citations

96
times ranked

9992
citing authors

#	ARTICLE	IF	CITATIONS
1	Functional Nanomaterials for Optoelectric Conversion and Energy Storage. Journal of Nanomaterials, 2013, 2013, 1-2.	2.7	1,394
2	Nanoscale Engineering of Heterostructured Anode Materials for Boosting Lithium-Ion Storage. Advanced Materials, 2016, 28, 7580-7602.	21.0	224
3	Reduced Graphene Oxide Wrapped FeS Nanocomposite for Lithium-Ion Battery Anode with Improved Performance. ACS Applied Materials & Interfaces, 2013, 5, 5330-5335.	8.0	199
4	Recent advances in nanostructured Nb-based oxides for electrochemical energy storage. Nanoscale, 2016, 8, 8443-8465.	5.6	172
5	High Capacity MoO ₂ /Graphite Oxide Composite Anode for Lithium-Ion Batteries. Journal of Physical Chemistry Letters, 2012, 3, 309-314.	4.6	151
6	Structural and Photoelectrochemical Properties of BiVO ₄ Thin Films. Journal of Physical Chemistry C, 2008, 112, 6099-6102.	3.1	144
7	Enhanced carrier multiplication in engineered quasi-type-II quantum dots. Nature Communications, 2014, 5, 4148.	12.8	143
8	Bismuth oxide: a new lithium-ion battery anode. Journal of Materials Chemistry A, 2013, 1, 12123.	10.3	132
9	Perovskite oxides as bifunctional oxygen electrocatalysts for oxygen evolution/reduction reactions – A mini review. Applied Materials Today, 2019, 16, 56-71.	4.3	122
10	SBA-15 confined synthesis of TiNb ₂ O ₇ nanoparticles for lithium-ion batteries. Nanoscale, 2013, 5, 11102.	5.6	119
11	High-Performance Photodetectors Based on Lead-Free 2D Ruddlesden-Popper Perovskite/MoS ₂ Heterostructures. ACS Applied Materials & Interfaces, 2019, 11, 8419-8427.	8.0	114
12	Phase-Transfer Ligand Exchange of Lead Chalcogenide Quantum Dots for Direct Deposition of Thick, Highly Conductive Films. Journal of the American Chemical Society, 2017, 139, 6644-6653.	13.7	112
13	Ultrafine Nb ₂ O ₅ Nanocrystal Coating on Reduced Graphene Oxide as Anode Material for High Performance Sodium Ion Battery. ACS Applied Materials & Interfaces, 2016, 8, 22213-22219.	8.0	108
14	Microwave-assisted synthesis of hybrid Co _x Ni _{1-x} (OH) ₂ nanosheets: Tuning the composition for high performance supercapacitor. Journal of Power Sources, 2014, 251, 338-343.	7.8	101
15	Temperature-Dependent Band Gap in Two-Dimensional Perovskites: Thermal Expansion Interaction and Electron-Phonon Interaction. Journal of Physical Chemistry Letters, 2019, 10, 2546-2553.	4.6	90
16	La _{0.8} Sr _{0.2} MnO ₃ -Based Perovskite Nanoparticles with the A-Site Deficiency as High Performance Bifunctional Oxygen Catalyst in Alkaline Solution. ACS Applied Materials & Interfaces, 2017, 9, 23820-23827.	8.0	87
17	Direct Identification of Surface Defects and Their Influence on the Optical Characteristics of Upconversion Nanoparticles. ACS Nano, 2018, 12, 3623-3628.	14.6	86
18	Simultaneous recovery of ammonium, potassium and magnesium from produced water by struvite precipitation. Chemical Engineering Journal, 2020, 382, 123001.	12.7	86

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19	A-site Excessive (La _{0.8} Sr _{0.2}) _{1-x} MnO ₃ Perovskite Oxides for Bifunctional Oxygen Catalyst in Alkaline Media. ACS Catalysis, 2019, 9, 5074-5083.	11.2	84
20	Polymer-assisted approach to LaCo _{1-x} Ni _x O ₃ network nanostructures as bifunctional oxygen electrocatalysts. Electrochimica Acta, 2019, 296, 945-953.	5.2	77
21	Facile synthesis of hierarchical MoS ₂ @carbon microspheres as a robust anode for lithium ion batteries. Journal of Materials Chemistry A, 2016, 4, 9653-9660.	10.3	73
22	Unprecedented performance of N-doped activated hydrothermal carbon towards C ₂ H ₆ /CH ₄ , CO ₂ /CH ₄ , and CO ₂ /H ₂ separation. Journal of Materials Chemistry A, 2016, 4, 2263-2276.	10.3	70
23	Fabrication of single phase 2D homologous perovskite microplates by mechanical exfoliation. 2D Materials, 2018, 5, 021001.	4.4	65
24	Optical and Structural Properties of Single Phase Epitaxial p-Type Transparent Oxide Thin Films. Advanced Materials, 2007, 19, 3604-3607.	21.0	64
25	Solvothermal route based in situ carbonization to Fe ₃ O ₄ @C as anode material for lithium ion battery. Nano Energy, 2014, 8, 126-132.	16.0	57
26	Self-Assembled Epitaxial Nanocomposite BaTiO ₃ ~NiFe ₂ O ₄ Films Prepared by Polymer-Assisted Deposition. Journal of the American Chemical Society, 2007, 129, 14132-14133.	13.7	54
27	Cation Deficiency Tuning of LaCoO ₃ Perovskite as Bifunctional Oxygen Electrocatalyst. ChemCatChem, 2020, 12, 2768-2775.	3.7	51
28	Porous TiO ₂ Conformal Coating on Carbon Nanotubes as Energy Storage Materials. Electrochimica Acta, 2015, 169, 73-81.	5.2	49
29	Polymer-assisted chemical solution synthesis of La _{0.8} Sr _{0.2} MnO ₃ -based perovskite with A-site deficiency and cobalt-doping for bifunctional oxygen catalyst in alkaline media. Electrochimica Acta, 2018, 273, 80-87.	5.2	45
30	Microstructural and magnetic properties of (La _{0.7} Sr _{0.3} MnO ₃) _{0.7} :(Mn ₃ O ₄) _{0.3} nanocomposite thin films. Journal of Applied Physics, 2011, 109, .	2.5	44
31	Ultrafine TiO ₂ nanoparticles on reduced graphene oxide as anode materials for lithium ion batteries. Applied Materials Today, 2017, 8, 31-34.	4.3	43
32	Hollow spherical rare-earth-doped yttrium oxysulfate: A novel structure for upconversion. Nano Research, 2014, 7, 1093-1102.	10.4	42
33	A facile microwave-assisted route to Co(OH) ₂ and Co ₃ O ₄ nanosheet for Li-ion battery. Journal of Alloys and Compounds, 2013, 578, 349-354.	5.5	41
34	Two-Dimensional Lead-Free Perovskite (C ₆ H ₅ C ₂ H ₄ NH ₃) ₂ CsSn ₂ with High Hole Mobility. Journal of Physical Chemistry Letters, 2019, 10, 7-12.	10.3	37
35	MOF-derived multifractal porous carbon with ultrahigh lithium-ion storage performance. Scientific Reports, 2017, 7, 40574.	3.3	36
36	Titanium Oxynitride Nanoparticles Anchored on Carbon Nanotubes as Energy Storage Materials. ACS Applied Materials & Interfaces, 2015, 7, 24212-24217.	8.0	35

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37	Bio-inspired synthesis of nanomaterials and smart structures for electrochemical energy storage and conversion. <i>Nano Materials Science</i> , 2020, 2, 264-280.	8.8	35
38	Nickel substituted LiMn ₂ O ₄ cathode with durable high-rate capability for Li-ion batteries. <i>RSC Advances</i> , 2013, 3, 18441.	3.6	33
39	A facile hydrothermal route to iron(III) oxide with conductive additives as composite anode for lithium ion batteries. <i>Journal of Power Sources</i> , 2014, 259, 227-232.	7.8	33
40	Enhancing the Electrocatalysis of LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ by Introducing Lithium Deficiency for Oxygen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 10496-10502.	8.0	33
41	A novel solvent-free thermal reaction of ferrocene and sulfur for one-step synthesis of iron sulfide and carbon nanocomposites and their electrochemical performance. <i>Journal of Power Sources</i> , 2014, 265, 1-5.	7.8	31
42	Two-Step Growth of 2D Organic-Inorganic Perovskite Microplates and Arrays for Functional Optoelectronics. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4532-4538.	4.6	31
43	Understanding Degradation at the Lithium-Ion Battery Cathode/Electrolyte Interface: Connecting Transition-Metal Dissolution Mechanisms to Electrolyte Composition. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 11930-11939.	8.0	31
44	Dielectric function of LaAlO ₃ from 0.8 to 6 eV between 77 and 700 K. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	2.1	30
45	Vapor-Phase Growth of CsPbBr ₃ Microstructures for Highly Efficient Pure Green Light Emission. <i>Advanced Optical Materials</i> , 2019, 7, 1801336.	7.3	30
46	PbE (E = S, Se) Colloidal Quantum Dot-Layered 2D Material Hybrid Photodetectors. <i>Nanomaterials</i> , 2020, 10, 172.	4.1	29
47	Electrodes with High Conductivities for High Performance Lithium/Sodium Ion Batteries. <i>Engineered Science</i> , 2018, .	2.3	27
48	Epitaxial Ternary Nitride Thin Films Prepared by a Chemical Solution Method. <i>Journal of the American Chemical Society</i> , 2008, 130, 15224-15225.	13.7	26
49	Highly Conductive Films of Layered Ternary Transition-Metal Nitrides. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 1490-1493.	13.8	26
50	Aqueous Solution-Deposited Molybdenum Oxide Films as an Anode Interfacial Layer for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 18218-18224.	8.0	26
51	MOF-derived ultrasmall CoSe ₂ nanoparticles encapsulated by an N-doped carbon matrix and their superior lithium/sodium storage properties. <i>Chemical Communications</i> , 2020, 56, 9218-9221.	4.1	24
52	Enhancing the Cooperative Catalytic Effect in Ni/Co Hydr(oxy)oxide Porous Electrodes for Overall Water Splitting and Glucose Sensing. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 11303-11312.	6.7	23
53	IrO ₂ -incorporated La _{0.8} Sr _{0.2} MnO ₃ as a bifunctional oxygen electrocatalyst with enhanced activities. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 1029-1039.	6.0	23
54	Lithium storage mechanisms of CdSe nanoparticles with carbon modification for advanced lithium ion batteries. <i>Chemical Communications</i> , 2019, 55, 2996-2999.	4.1	23

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55	Controllable Fabrication and Optical Properties of Uniform Gadolinium Oxysulfate Hollow Spheres. <i>Scientific Reports</i> , 2016, 5, 17934.	3.3	22
56	Engineering Molybdenum Diselenide and Its Reduced Graphene Oxide Hybrids for Efficient Electrocatalytic Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2018, 1, 2143-2152.	5.0	22
57	Polymer-assisted chemical solution approach to YVO ₄ :Eu nanoparticle networks. <i>Journal of Materials Chemistry</i> , 2012, 22, 5835.	6.7	21
58	Electric-Field-Induced Dynamic Electronic Junctions in Hybrid Organic-Inorganic Perovskites for Optoelectronic Applications. <i>ACS Omega</i> , 2018, 3, 1445-1450.	3.5	21
59	A new chemosensor for Ga ³⁺ detection by fluorescent nitrogen-doped graphitic carbon dots. <i>RSC Advances</i> , 2015, 5, 13036-13041.	3.6	20
60	Carbon Nanotube Supported Amorphous MoS ₂ via Microwave Heating Synthesis for Enhanced Performance of Hydrogen Evolution Reaction. <i>Energy Material Advances</i> , 2021, 2021, .	11.0	20
61	Structure and magnetotransport properties of epitaxial nanocomposite La _{0.67} Ca _{0.33} MnO ₃ :SrTiO ₃ thin films grown by a chemical solution approach. <i>Applied Physics Letters</i> , 2012, 100, 082403.	3.3	19
62	Biexcitons in 2D (iso-BA) ₂ PbI ₄ perovskite crystals. <i>Nanophotonics</i> , 2020, 9, 2001-2006.	6.0	19
63	Controlling morphology and enhancing electrochemical performance of cobalt oxide by addition of graphite. <i>Materials Letters</i> , 2013, 98, 59-62.	2.6	18
64	A general polymer-assisted solution approach to grow transition metal oxide nanostructures directly on nickel foam as anodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2013, 242, 604-609.	7.8	17
65	Recent progress of the optoelectronic properties of 2D Ruddlesden-Popper perovskites. <i>Journal of Semiconductors</i> , 2019, 40, 041901.	3.7	17
66	Photocatalytic Treatment of Desalination Concentrate Using Optical Fibers Coated With Nanostructured Thin Films: Impact of Water Chemistry and Seasonal Climate Variations. <i>Photochemistry and Photobiology</i> , 2016, 92, 379-387.	2.5	16
67	Enhancement of Low-field Magnetoresistance in Self-Assembled Epitaxial La _{0.67} Ca _{0.33} MnO ₃ :NiO and La _{0.67} Ca _{0.33} MnO ₃ :Co ₃ O ₄ Composite Films via Polymer-Assisted Deposition. <i>Scientific Reports</i> , 2016, 6, 26390.	3.3	16
68	An Unbalanced Battle in Excellence: Revealing Effect of Ni/Co Occupancy on Water Splitting and Oxygen Reduction Reactions in Triple-Conducting Oxides for Protonic Ceramic Electrochemical Cells. <i>Small</i> , 2022, 18, .	10.0	16
69	Facile chemical solution deposition of nanocrystalline CrN thin films with low magnetoresistance. <i>RSC Advances</i> , 2014, 4, 12568-12571.	3.6	14
70	Controllable growth of two-dimensional perovskite microstructures. <i>CrystEngComm</i> , 2018, 20, 6538-6545.	2.6	14
71	Preparation of porous SnO ₂ helical nanotubes and SnO ₂ sheets. <i>Materials Chemistry and Physics</i> , 2013, 140, 249-254.	4.0	13
72	Direct growth of mesoporous anatase TiO ₂ on nickel foam by soft template method as binder-free anode for lithium-ion batteries. <i>RSC Advances</i> , 2014, 4, 48938-48942.	3.6	13

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73	Surfactant-Templated Mesoporous Metal Oxide Nanowires. <i>Journal of Nanomaterials</i> , 2010, 2010, 1-6.	2.7	12
74	Surface depletion field in 2D perovskite microplates: Structural phase transition, quantum confinement and Stark effect. <i>Nano Research</i> , 2019, 12, 2858-2865.	10.4	11
75	Bio-crude oil production and valorization of hydrochar as anode material from hydrothermal liquefaction of algae grown on brackish dairy wastewater. <i>Fuel Processing Technology</i> , 2022, 227, 107119.	7.2	11
76	A ternary Ag@TiO ₂ /reduced graphene oxide nanocomposite as the anode material for lithium ion batteries. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 2126-2134.	6.0	10
77	Hierarchical Ni(HCO ₃) ₂ Nanosheets Anchored on Carbon Nanofibers as Binder-Free Anodes for Lithium-Ion Batteries. <i>Energy Technology</i> , 2019, 7, 1900094.	3.8	10
78	Exploring spent biomass-derived adsorbents as anodes for lithium ion batteries. <i>Materials Today Energy</i> , 2021, 19, 100580.	4.7	10
79	Polymer-assisted deposition of SrTiO ₃ film as cathode buffer layer in inverted polymer solar cells. <i>Applied Materials Today</i> , 2017, 9, 402-406.	4.3	9
80	Niobium-doped titanium dioxide on a functionalized carbon supported palladium catalyst for enhanced ethanol electro-oxidation. <i>RSC Advances</i> , 2017, 7, 34618-34623.	3.6	9
81	Waste-to-wealth application of wastewater treatment algae-derived hydrochar for Pb(II) adsorption. <i>MethodsX</i> , 2021, 8, 101263.	1.6	9
82	Preparation of Mesoporous Silica-Supported Palladium Catalysts for Biofuel Upgrade. <i>Journal of Nanotechnology</i> , 2012, 2012, 1-6.	3.4	6
83	Advanced Nanomaterials and Nanotechnologies for Solar Energy. <i>International Journal of Photoenergy</i> , 2019, 2019, 1-2.	2.5	6
84	A Generalized Synthesis Strategy for Binderless, Free-Standing Anode for Lithium/Sodium Ion Battery Comprised of Metal Selenides@Carbon Nanofibers. <i>ACS Applied Energy Materials</i> , 2022, 5, 842-851.	5.1	6
85	Nanocomposites. <i>Journal of Nanotechnology</i> , 2011, 2011, 1-2.	3.4	5
86	Synergistic Effect on the Improved Electrochemical Performance in the Case of Fe _{1-x} Cd _x CO ₃ . <i>Journal of Physical Chemistry C</i> , 2019, 123, 19333-19339.	3.1	5
87	Brightening upconverting nanocrystals using laser-induced surface reconstruction. <i>Materials Today Nano</i> , 2019, 8, 100055.	4.6	3
88	Functional Nanomaterials for Optoelectric Conversion and Energy Storage 2014. <i>Journal of Nanomaterials</i> , 2014, 2014, 1-2.	2.7	2
89	Carrier Density Modulation in PbSe Quantum Dot Films via In-Solution Ligand Exchange. <i>MRS Advances</i> , 2020, 5, 2091-2099.	0.9	2
90	Catalyst Nanomaterials. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-2.	2.7	1

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91	Nanocomposites 2012. Journal of Nanotechnology, 2012, 2012, 1-2.	3.4	0
92	Nanocomposites 2013. Journal of Nanotechnology, 2013, 2013, 1-1.	3.4	0
93	Self-Substitution and the Temperature Effects on the Electrochemical Performance in the High Voltage Cathode System $\text{LiMn}_{1.5+x}\text{Ni}_{0.5-x}\text{O}_4$ ($x=0.1$). Journal of Electrochemical Energy Conversion and Storage, 2017, 14, .	2.1	0