Bin Luo

List of Publications by Year
in descending order

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120 papers	11,033 citations	34016 52 h-index	30010 103 g-index
125 all docs	125 docs citations	125 times ranked	14177 citing authors

#	Article	IF	Citations
1	Recent advances in 2D materials for photocatalysis. Nanoscale, 2016, 8, 6904-6920.	2.8	680
2	Hollow Nanostructures for Photocatalysis: Advantages and Challenges. Advanced Materials, 2019, 31, e1801369.	11.1	506
3	Renewing Functionalized Graphene as Electrodes for Highâ€Performance Supercapacitors. Advanced Materials, 2012, 24, 6348-6355.	11.1	394
4	Adaptable Siliconâ€“Carbon Nanocables Sandwiched between Reduced Graphene Oxide Sheets as Lithium Ion Battery Anodes. ACS Nano, 2013, 7, 1437-1445.	7.3	392
5	Structural Evolution of 2D Microporous Covalent Triazine-Based Framework toward the Study of High-Performance Supercapacitors. Journal of the American Chemical Society, 2015, 137, 219-225.	6.6	390
6	Two dimensional grapheneâ€“SnS₂hybrids with superior rate capability for lithium ion storage. Energy and Environmental Science, 2012, 5, 5226-5230.	15.6	386
7	Chemical Approaches toward Grapheneâ€Based Nanomaterials and their Applications in Energyâ€Related Areas. Small, 2012, 8, 630-646.	5.2	368
8	Grapheneâ€Confined Sn Nanosheets with Enhanced Lithium Storage Capability. Advanced Materials, 2012, 24, 3538-3543.	11.1	271
9	An Innovative Freezeâ€Dried Reduced Graphene Oxide Supported SnS₂ Cathode Active Material for Aluminumâ€Ion Batteries. Advanced Materials, 2017, 29, 1606132.	11.1	263
10	A Binderâ€Free and Freeâ€Standing Cobalt Sulfide@Carbon Nanotube Cathode Material for Aluminumâ€Ion Batteries. Advanced Materials, 2018, 30, 1703824.	11.1	250
11	Design and construction of three dimensional graphene-based composites for lithium ion battery applications. Energy and Environmental Science, 2015, 8, 456-477.	15.6	243
12	Review on areal capacities and long-term cycling performances of lithium sulfur battery at high sulfur loading. Energy Storage Materials, 2019, 18, 289-310.	9.5	231
13	Contactâ€Engineered and Voidâ€Involved Silicon/Carbon Nanohybrids as Lithiumâ€ionâ€Battery Anodes. Advanced Materials, 2013, 25, 3560-3565.	11.1	227
14	The dimensionality of Sn anodes in Li-ion batteries. Materials Today, 2012, 15, 544-552.	8.3	222
15	Moltenâ€Saltâ€Mediated Synthesis of an Atomic Nickel Coâ€catalyst on TiO₂ for Improved Photocatalytic H₂ Evolution. Angewandte Chemie - International Edition, 2020, 59, 7230-7234.	7.2	221
16	Sandwichâ€Like Ultrathin TiS₂ Nanosheets Confined within N, S Codoped Porous Carbon as an Effective Polysulfide Promoter in Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1901872.	10.2	186
17	Reduced Graphene Oxideâ€Mediated Growth of Uniform Tinâ€Core/Carbonâ€Sheath Coaxial Nanocables with Enhanced Lithium Ion Storage Properties. Advanced Materials, 2012, 24, 1405-1409.	11.1	182
18	Recent Progress on Visible Light Responsive Heterojunctions for Photocatalytic Applications. Journal of Materials Science and Technology, 2017, 33, 1-22.	5.6	176

#	Article	IF	Citations
19	Recent advances in separators to mitigate technical challenges associated with re-chargeable lithium sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 6596-6615.	5.2	173
20	Terephthalonitrile-derived nitrogen-rich networks for high performance supercapacitors. Energy and Environmental Science, 2012, 5, 9747.	15.6	171
21	High Volumetric Capacity Silicon-Based Lithium Battery Anodes by Nanoscale System Engineering. Nano Letters, 2013, 13, 5578-5584.	4.5	170
22	Recent Progress on Integrated Energy Conversion and Storage Systems. Advanced Science, 2017, 4, 1700104.	5.6	162
23	Pyrolyzed Bacterial Cellulose: A Versatile Support for Lithium Ion Battery Anode Materials. Small, 2013, 9, 2399-2404.	5.2	158
24	Lithiationâ€Induced Vacancy Engineering of Co₃O₄ with Improved Faradic Reactivity for Highâ€Performance Supercapacitor. Advanced Functional Materials, 2020, 30, 2004172.	7.8	156
25	Application of graphene and graphene-based materials in clean energy-related devices. International Journal of Energy Research, 2009, 33, 1161-1170.	2.2	147
26	Solar energy conversion on g-C3N4 photocatalyst: Light harvesting, charge separation, and surface kinetics. Journal of Energy Chemistry, 2018, 27, 1111-1123.	7.1	144
27	Two-dimensional g-C3N4/Ca2Nb2TaO10 nanosheet composites for efficient visible light photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2017, 202, 184-190.	10.8	143
28	Cyclic Voltammetry in Lithiumâ€“Sulfur Batteriesâ€”Challenges and Opportunities. Energy Technology, 2019, 7, 1801001.	1.8	138
29	Tin nanoparticles encapsulated in graphene backboned carbonaceous foams as high-performance anodes for lithium-ion and sodium-ion storage. Nano Energy, 2016, 22, 232-240.	8.2	136
30	Engineering the trap effect of residual oxygen atoms and defects in hard carbon anode towards high initial Coulombic efficiency. Nano Energy, 2019, 64, 103937.	8.2	118
31	Controllable growth of SnS₂ nanostructures on nanocarbon surfaces for lithium-ion and sodium-ion storage with high rate capability. Journal of Materials Chemistry A, 2018, 6, 1462-1472.	5.2	117
32	Faster Activation and Slower Capacity/Voltage Fading: A Bifunctional Urea Treatment on Lithiumâ€Rich Cathode Materials. Advanced Functional Materials, 2020, 30, 1909192.	7.8	117
33	New Binderâ€Free Metal Phosphideâ€“Carbon Felt Composite Anodes for Sodiumâ€Ion Battery. Advanced Energy Materials, 2018, 8, 1801197.	10.2	113
34	Approaching the Downsizing Limit of Silicon for Surfaceâ€Controlled Lithium Storage. Advanced Materials, 2015, 27, 1526-1532.	11.1	110
35	MXene derived TiS2 nanosheets for high-rate and long-life sodium-ion capacitors. Energy Storage Materials, 2020, 26, 550-559.	9.5	108
36	Lattice distortion induced internal electric field in TiO2 photoelectrode for efficient charge separation and transfer. Nature Communications, 2020, 11, 2129.	5.8	108

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37	Chemical amination of graphene oxides and their extraordinary properties in the detection of lead ions. Nanoscale, 2011, 3, 5059.	2.8	104
38	Confining ultrafine tin monophosphide in Ti3C2Tx interlayers for rapid and stable sodium ion storage. EScience, 2021, 1, 203-211.	25.0	103
39	Yolk-shell Si/C composites with multiple Si nanoparticles encapsulated into double carbon shells as lithium-ion battery anodes. Journal of Energy Chemistry, 2019, 32, 124-130.	7.1	102
40	Biomimetic Sn₄P₃ Anchored on Carbon Nanotubes as an Anode for High-Performance Sodium-Ion Batteries. ACS Nano, 2020, 14, 8826-8837.	7.3	95
41	Au@MnO₂ Coreâ€“Shell Nanomesh Electrodes for Transparent Flexible Supercapacitors. Small, 2014, 10, 4136-4141.	5.2	93
42	Hydrogen reduced graphene oxide/metal grid hybrid film: towards high performance transparent conductive electrode for flexible electrochromic devices. Carbon, 2015, 81, 232-238.	5.4	91
43	Recent Progress and Future Trends of Aluminum Batteries. Energy Technology, 2019, 7, 86-106.	1.8	85
44	Surface Ligands Stabilized Lead Halide Perovskite Quantum Dot Photocatalyst for Visible Lightâ€Driven Hydrogen Generation. Advanced Functional Materials, 2019, 29, 1905683.	7.8	85
45	Singleâ€Crystalline Nanomesh Tantalum Nitride Photocatalyst with Improved Hydrogenâ€Evolving Performance. Advanced Energy Materials, 2018, 8, 1701605.	10.2	83
46	One-dimensional/two-dimensional hybridization for self-supported binder-free silicon-based lithium ion battery anodes. Nanoscale, 2013, 5, 1470.	2.8	80
47	Two-Dimensional Titanium Carbonitride Mxene for High-Performance Sodium Ion Batteries. ACS Applied Nano Materials, 2018, 1, 6854-6863.	2.4	71
48	The role of functional materials to produce high areal capacity lithium sulfur battery. Journal of Energy Chemistry, 2020, 42, 195-209.	7.1	67
49	Enriching CO₂ Activation Sites on Graphitic Carbon Nitride with Simultaneous Introduction of Electronâ€Transfer Promoters for Superior Photocatalytic CO₂â€toâ€Fuel Conversion. Advanced Sustainable Systems, 2017, 1, 1700003.	2.7	65
50	Design of twin junction with solid solution interface for efficient photocatalytic H2 production. Nano Energy, 2020, 69, 104410.	8.2	62
51	Fabricating highly efficient heterostructured CuBi₂O₄ photocathodes for unbiased water splitting. Journal of Materials Chemistry A, 2020, 8, 2498-2504.	5.2	57
52	High-Performance Porous Silicon/Nanosilver Anodes from Industrial Low-Grade Silicon for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 49080-49089.	4.0	57
53	Moltenâ€Saltâ€Mediated Synthesis of an Atomic Nickel Coâ€catalyst on TiO₂ for Improved Photocatalytic H₂ Evolution. Angewandte Chemie, 2020, 132, 7297-7301.	1.6	55
54	Sn4P3@Porous carbon nanofiber as a self-supported anode for sodium-ion batteries. Journal of Power Sources, 2020, 461, 228116.	4.0	55

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55	Tantalum (Oxy)Nitride: Narrow Bandgap Photocatalysts for Solar Hydrogen Generation. Engineering, 2017, 3, 365-378.	3.2	51
56	Intertwined Network of Si/C Nanocables and Carbon Nanotubes as Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2013, 5, 6467-6472.	4.0	50
57	Enhancing photocatalytic activity of tantalum nitride by rational suppression of bulk, interface and surface charge recombination. Applied Catalysis B: Environmental, 2019, 246, 195-201.	10.8	50
58	A Portable and Efficient Solarâ€Rechargeable Battery with Ultrafast Photoâ€Charge/Discharge Rate. Advanced Energy Materials, 2019, 9, 1900872.	10.2	49
59	PSi@SiOx/Nano-Ag composite derived from silicon cutting waste as high-performance anode material for Li-ion batteries. Journal of Hazardous Materials, 2021, 414, 125480.	6.5	49
60	Boosting the performance of hybrid supercapacitors through redox electrolyte-mediated capacity balancing. Nano Energy, 2020, 68, 104226.	8.2	48
61	Identifying dual functions of rGO in a BiVO₄/rGO/NiFe-layered double hydroxide photoanode for efficient photoelectrochemical water splitting. Journal of Materials Chemistry A, 2020, 8, 13231-13240.	5.2	48
62	Separator coatings as efficient physical and chemical hosts of polysulfides for high-sulfur-loaded rechargeable lithiumâ€“sulfur batteries. Journal of Energy Chemistry, 2020, 44, 51-60.	7.1	47
63	Recent Advances of Metalâ€Oxide Photoanodes: Engineering of Charge Separation and Transportation toward Efficient Solar Water Splitting. Solar Rrl, 2020, 4, 1900509.	3.1	45
64	Interlayer Space Engineering of MXenes for Electrochemical Energy Storage Applications. Chemistry - A European Journal, 2021, 27, 1921-1940.	1.7	45
65	Nanosphere Lithography: A Versatile Approach to Develop Transparent Conductive Films for Optoelectronic Applications. Advanced Materials, 2022, 34, e2103842.	11.1	45
66	Preparation of carbon-encapsulated metal magnetic nanoparticles by an instant pyrolysis method. New Carbon Materials, 2010, 25, 199-204.	2.9	38
67	Highâ€Efficiency and Roomâ€Temperature Reduction of Graphene Oxide: A Facile Green Approach Towards Flexible Graphene Films. Small, 2012, 8, 1180-1184.	5.2	36
68	Construction of point-line-plane (0-1-2 dimensional) Fe2O3-SnO2/graphene hybrids as the anodes with excellent lithium storage capability. Nano Research, 2017, 10, 121-133.	5.8	36
69	Oriented nanoporous MOFs to mitigate polysulfides migration in lithium-sulfur batteries. Nano Energy, 2020, 75, 105009.	8.2	33
70	Unlocking the potential of commercial carbon nanofibers as free-standing positive electrodes for flexible aluminum ion batteries. Journal of Materials Chemistry A, 2019, 7, 15123-15130.	5.2	32
71	A fast room-temperature strategy for direct reduction of graphene oxide films towards flexible transparent conductive films. Journal of Materials Chemistry A, 2014, 2, 10969-10973.	5.2	31
72	Polyethylenimine Expanded Graphite Oxide Enables High Sulfur Loading and Longâ€Term Stability of Lithiumâ€“Sulfur Batteries. Small, 2019, 15, e1804578.	5.2	30

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73	Hollow structured cathode materials for rechargeable batteries. Science Bulletin, 2020, 65, 496-512.	4.3	30
74	Longâ€Term Cycling Performance of Nitrogenâ€Doped Hollow Carbon Nanospheres as Anode Materials for Sodiumâ€Ion Batteries. European Journal of Inorganic Chemistry, 2016, 2016, 2051-2055.	1.0	29
75	Multifunctional Effects of Sulfonyl-Anchored, Dual-Doped Multilayered Graphene for High Areal Capacity Lithium Sulfur Batteries. ACS Central Science, 2019, 5, 1946-1958.	5.3	29
76	Trilayer Nanomesh Films with Tunable Wettability as Highly Transparent, Flexible, and Recyclable Electrodes. Advanced Functional Materials, 2020, 30, 2002556.	7.8	29
77	Sulfur-based redox chemistry for electrochemical energy storage. Coordination Chemistry Reviews, 2020, 422, 213445.	9.5	28
78	Large-scale fabrication of single crystalline tin nanowire arrays. Nanoscale, 2010, 2, 1661.	2.8	27
79	Heterocyclic Conjugated Polymer Nanoarchitectonics with Synergistic Redoxâ€Active Sites for Highâ€Performance Aluminium Organic Batteries. Angewandte Chemie - International Edition, 2022, 61, .	7.2	27
80	Reduced Graphene Oxide Nanoribbon Networks: A Novel Approach towards Scalable Fabrication of Transparent Conductive Films. Small, 2013, 9, 820-824.	5.2	26
81	Synergistically engineered self-standing silicon/carbon composite arrays as high performance lithium battery anodes. Journal of Materials Chemistry A, 2015, 3, 494-498.	5.2	26
82	Molten Salt Synthesis of Atomic Heterogeneous Catalysts: Old Chemistry for Advanced Materials. European Journal of Inorganic Chemistry, 2020, 2020, 2942-2949.	1.0	26
83	Graphene-templated formation of 3D tin-based foams for lithium ion storage applications with a long lifespan. Journal of Materials Chemistry A, 2016, 4, 362-367.	5.2	25
84	Noble-metal-free MoS2/Ta3N5 heterostructure photocatalyst for hydrogen generation. Progress in Natural Science: Materials International, 2018, 28, 189-193.	1.8	25
85	Nanoconfined Topochemical Conversion from MXene to Ultrathin Nonâ€Layered TiN Nanomesh toward Superior Electrocatalysts for Lithiumâ€Sulfur Batteries. Small, 2021, 17, e2101360.	5.2	25
86	A new sodium iron phosphate as a stable high-rate cathode material for sodium ion batteries. Nano Research, 2018, 11, 6197-6205.	5.8	24
87	Enhanced Safety and Performance of High-Voltage Solid-State Sodium Battery through Trilayer, Multifunctional Electrolyte Design. Energy Storage Materials, 2021, 41, 8-13.	9.5	23
88	Impact of Micropores and Dopants to Mitigate Lithium Polysulfides Shuttle over High Surface Area of ZIF-8 Derived Nanoporous Carbons. ACS Applied Energy Materials, 2020, 3, 5523-5532.	2.5	21
89	Covalently Stabilized Pd Clusters in Microporous Polyphenylene: An Efficient Catalyst for Suzuki Reactions Under Aerobic Conditions. Small, 2013, 9, 2460-2465.	5.2	20
90	Effect of heating rate on the electrochemical performance of MnO X @CNF nanocomposites as supercapacitor electrodes. Science Bulletin, 2014, 59, 1832-1837.	1.7	20

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91	Freestanding carbon-coated CNT/Sn(O₂) coaxial sponges with enhanced lithium-ion storage capability. Nanoscale, 2015, 7, 20380-20385.	2.8	20
92	Metallic Nanomesh with Disordered Dual-Size Apertures As Wide-Viewing-Angle Transparent Conductive Electrode. ACS Applied Materials & Interfaces, 2016, 8, 22768-22773.	4.0	19
93	Hierarchical macro/mesoporous NiO as stable and fast-charging anode materials for lithium-ion batteries. Microporous and Mesoporous Materials, 2017, 238, 78-83.	2.2	19
94	Recent advances of hollow-structured sulfur cathodes for lithiumâ€“sulfur batteries. Materials Chemistry Frontiers, 2020, 4, 2517-2547.	3.2	19
95	Shape Control of Periodic Metallic Nanostructures for Transparent Conductive Films. Particle and Particle Systems Characterization, 2017, 34, 1600262.	1.2	17
96	Facile fabrication of 3D TiO2 - graphene aerogel composite with enhanced adsorption and solar light-driven photocatalytic activity. Ceramics International, 2021, 47, 14290-14300.	2.3	17
97	Stable Interfaces in a Sodium Metal-Free, Solid-State Sodium-Ion Battery with Gradient Composite Electrolyte. ACS Applied Materials & Interfaces, 2021, 13, 39355-39362.	4.0	17
98	Poly (zinc phthalocyanine) Nanoribbons and Their Application in the Highâ€Sensitive Detection of Lead Ions. Macromolecular Chemistry and Physics, 2012, 213, 1051-1059.	1.1	16
99	ZIF-8 derived hollow carbon to trap polysulfides for high performance lithiumâ€“sulfur batteries. Nanoscale, 2021, 13, 11086-11092.	2.8	16
100	Synergistically tuning the graphitic degree, porosity, and the configuration of active sites for highly active bifunctional catalysts and Zn-air batteries. Nano Research, 2022, 15, 7959-7967.	5.8	15
101	An Integrated Strategy towards Enhanced Performance of the Lithiumâ€“Sulfur Battery and its Fading Mechanism. Chemistry - A European Journal, 2018, 24, 18544-18550.	1.7	14
102	Designing efficient Bi₂Fe₄O₉ photoanodes via bulk and surface defect engineering. Chemical Communications, 2020, 56, 9376-9379.	2.2	14
103	Two-dimensional heterojunction SnS2/SnO2 photoanode with excellent photoresponse up to near infrared region. Solar Energy Materials and Solar Cells, 2020, 207, 110342.	3.0	13
104	A stable high-power Na2Ti3O7/LiNi0.5Mn1.5O4 Li-ion hybrid energy storage device. Electrochimica Acta, 2018, 284, 30-37.	2.6	12
105	Bridging localized electron states of pyrite-type CoS2 cocatalyst for activated solar H2 evolution. Nano Research, 0, , 1.	5.8	12
106	Realizing highly stable zinc-ion batteries via electrolyte engineering with adsorbed molecular protective layer. Electrochimica Acta, 2022, 427, 140876.	2.6	11
107	Exploring the Interaction between Graphene Derivatives and Metal Ions as a Key Step towards Grapheneâ€“Inorganic Nanohybrids. Chemistry - an Asian Journal, 2013, 8, 410-413.	1.7	10
108	Will new aluminum-ion battery be a game changer?. Science Bulletin, 2015, 60, 1042-1044.	4.3	9

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109	Tuning the carbon content on TiO 2 nanosheets for optimized sodium storage. Electrochimica Acta, 2016, 219, 163-169.	2.6	9
110	Understanding the roles of carbon in carbon/g-C3N4 based photocatalysts for H2 evolution. Nano Research, 0, , 1.	5.8	9
111	One-pot synthesis of Bi-Ni nanowire and nanocable arrays by coelectrodeposition approach. Nanoscale Research Letters, 2012, 7, 130.	3.1	6
112	Photocatalysis: Singleâ€Crystalline Nanomesh Tantalum Nitride Photocatalyst with Improved Hydrogenâ€Evolving Performance (Adv. Energy Mater. 1/2018). Advanced Energy Materials, 2018, 8, 1770138.	10.2	4
113	Influence of iron, aluminum, calcium, titanium and vanadium impurities removal from silicon based on Cu-catalyzed chemical leaching. Journal of Materials Research and Technology, 2021, 10, 502-511.	2.6	4
114	Heterocyclic Conjugated Polymer Nanoarchitectonics with Synergistic Redoxâ€Active Sites for Highâ€Performance Aluminium Organic Batteries. Angewandte Chemie, 2022, 134, .	1.6	4
115	An orientated mass transfer in Ni-Cu tandem nanofibers for highly selective reduction of CO2 to ethanol. Fundamental Research, 2023, 3, 786-795.	1.6	3
116	Enhanced Transparent Conductive Properties of Graphene/Carbon Nano-Composite Films. Journal of Nanoscience and Nanotechnology, 2013, 13, 942-945.	0.9	2
117	Different Characterization Techniques to Evaluate Graphene and Its Properties. , 2012, , 118-161.		0
118	Frontispiece: Interlayer Space Engineering of MXenes for Electrochemical Energy Storage Applications. Chemistry - A European Journal, 2021, 27, .	1.7	0
119	Design of nanostructured sulfur cathodes for high-performance lithiumâ€“sulfur batteries. , 2022, , 425-452.		0
120	RÃ¼cktitelbild: Heterocyclic Conjugated Polymer Nanoarchitectonics with Synergistic Redoxâ€Active Sites for Highâ€Performance Aluminium Organic Batteries (Angew. Chem. 25/2022). Angewandte Chemie, 2022, 134, .	1.6	0