Bing Sun

List of Publications by Year
in descending order

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105	10,054	22099	33814
papers	citations	59 h-index	99 g-index

108	108	108	11580
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highly Ordered Mesoporous MoS₂ with Expanded Spacing of the (002) Crystal Plane for Ultrafast Lithium Ion Storage. Advanced Energy Materials, 2012, 2, 970-975.	10.2	455
2	â€œSuperaerophobicâ€•Nickel Phosphide Nanoarray Catalyst for Efficient Hydrogen Evolution at Ultrahigh Current Densities. Journal of the American Chemical Society, 2019, 141, 7537-7543.	6.6	401
3	Porous Graphene Nanoarchitectures: An Efficient Catalyst for Low Charge-Overpotential, Long Life, and High Capacity Lithiumâ€“Oxygen Batteries. Nano Letters, 2014, 14, 3145-3152.	4.5	329
4	Highly efficient and large-scale synthesis of graphene by electrolytic exfoliation. Carbon, 2009, 47, 3242-3246.	5.4	322
5	Synthesis of Mesoporous Î±-Fe₂O₃ Nanostructures for Highly Sensitive Gas Sensors and High Capacity Anode Materials in Lithium Ion Batteries. Journal of Physical Chemistry C, 2010, 114, 18753-18761.	1.5	311
6	MnO/C coreâ€“shell nanorods as high capacity anode materials for lithium-ion batteries. Journal of Power Sources, 2011, 196, 3346-3349.	4.0	303
7	Dendriteâ€Free Sodiumâ€Metal Anodes for Highâ€Energy Sodiumâ€Metal Batteries. Advanced Materials, 2018, 30, e1801334.	11.1	267
8	MXeneâ€Based Dendriteâ€Free Potassium Metal Batteries. Advanced Materials, 2020, 32, e1906739.	11.1	244
9	Graphene nanosheets as cathode catalysts for lithium-air batteries with an enhanced electrochemical performance. Carbon, 2012, 50, 727-733.	5.4	238
10	Graphene-Co3O4 nanocomposite as electrocatalyst with high performance for oxygen evolution reaction. Scientific Reports, 2015, 5, 7629.	1.6	234
11	Sn@CNT nanopillars grown perpendicularly on carbon paper: A novel free-standing anode for sodium ion batteries. Nano Energy, 2015, 13, 208-217.	8.2	185
12	Temperatureâ€Dependent Nucleation and Growth of Dendriteâ€Free Lithium Metal Anodes. Angewandte Chemie - International Edition, 2019, 58, 11364-11368.	7.2	182
13	Design Strategies to Enable the Efficient Use of Sodium Metal Anodes in Highâ€Energy Batteries. Advanced Materials, 2020, 32, e1903891.	11.1	173
14	Revitalising sodiumâ€“sulfur batteries for non-high-temperature operation: a crucial review. Energy and Environmental Science, 2020, 13, 3848-3879.	15.6	172
15	Reaction Mechanisms of Layered Lithiumâ€Rich Cathode Materials for Highâ€Energy Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2021, 60, 2208-2220.	7.2	170
16	Microwave-assisted Synthesis of Mesoporous Co₃O₄ Nanoflakes for Applications in Lithium Ion Batteries and Oxygen Evolution Reactions. ACS Applied Materials & Interfaces, 2015, 7, 3306-3313.	4.0	169
17	Stable Conversion Chemistryâ€Based Lithium Metal Batteries Enabled by Hierarchical Multifunctional Polymer Electrolytes with Nearâ€Single Ion Conduction. Angewandte Chemie - International Edition, 2019, 58, 6001-6006.	7.2	167
18	Honeycomb-like porous gel polymer electrolyte membrane for lithium ion batteries with enhanced safety. Scientific Reports, 2014, 4, 6007.	1.6	165

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19	Hierarchical 3D mesoporous silicon@graphene nanoarchitectures for lithium ion batteries with superior performance. Nano Research, 2014, 7, 85-94.	5.8	163
20	Ruthenium nanocrystals as cathode catalysts for lithium-oxygen batteries with a superior performance. Scientific Reports, 2013, 3, 2247.	1.6	158
21	Mesoporous Carbon Nanocube Architecture for Highâ€Performance Lithiumâ€“Oxygen Batteries. Advanced Functional Materials, 2015, 25, 4436-4444.	7.8	155
22	3D Hyperbranched Hollow Carbon Nanorod Architectures for Highâ€Performance Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2014, 4, 1301761.	10.2	154
23	Towards high-energy-density lithium-ion batteries: Strategies for developing high-capacity lithium-rich cathode materials. Energy Storage Materials, 2021, 34, 716-734.	9.5	149
24	A versatile functionalized ionic liquid to boost the solution-mediated performances of lithium-oxygen batteries. Nature Communications, 2019, 10, 602.	5.8	138
25	In Situ Construction of Protective Films on Zn Metal Anodes via Natural Protein Additives Enabling High-Performance Zinc Ion Batteries. ACS Nano, 2022, 16, 11392-11404.	7.3	137
26	Strain engineering of two-dimensional multilayered heterostructures for beyond-lithium-based rechargeable batteries. Nature Communications, 2020, 11, 3297.	5.8	134
27	Multi-chambered micro/mesoporous carbon nanocubes as new polysulfides reserviors for lithiumâ€“sulfur batteries with long cycle life. Nano Energy, 2015, 16, 268-280.	8.2	132
28	Nitrogenâ€Doped Porous Carbon Nanosheets from Ecoâ€Friendly Eucalyptus Leaves as High Performance Electrode Materials for Supercapacitors and Lithium Ion Batteries. Chemistry - A European Journal, 2017, 23, 3683-3690.	1.7	132
29	Porous Ti₃C₂T_x MXene for Ultrahigh-Rate Sodium-Ion Storage with Long Cycle Life. ACS Applied Nano Materials, 2018, 1, 505-511.	2.4	132
30	Immunizing lithium metal anodes against dendrite growth using protein molecules to achieve high energy batteries. Nature Communications, 2020, 11, 5429.	5.8	129
31	Nonâ€Flammable Liquid and Quasiâ€Solid Electrolytes toward Highlyâ€Safe Alkali Metalâ€Based Batteries. Advanced Functional Materials, 2021, 31, 2008644.	7.8	127
32	Three-dimensional pie-like current collectors for dendrite-free lithium metal anodes. Energy Storage Materials, 2018, 11, 127-133.	9.5	124
33	2D Superlattices for Efficient Energy Storage and Conversion. Advanced Materials, 2020, 32, e1902654.	11.1	117
34	Multi-shelled hollow carbon nanospheres for lithiumâ€“sulfur batteries with superior performances. Journal of Materials Chemistry A, 2014, 2, 16199-16207.	5.2	116
35	Two-Dimensional Unilamellar Cation-Deficient Metal Oxide Nanosheet Superlattices for High-Rate Sodium Ion Energy Storage. ACS Nano, 2018, 12, 12337-12346.	7.3	111
36	Soft-template synthesis of 3D porous graphene foams with tunable architectures for lithiumâ€“O₂ batteries and oil adsorption applications. Journal of Materials Chemistry A, 2014, 2, 7973-7979.	5.2	108

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37	Highly disordered cobalt oxide nanostructure induced by sulfur incorporation for efficient overall water splitting. Nano Energy, 2020, 71, 104652.	8.2	105
38	Mesoporous graphene paper immobilised sulfur as a flexible electrode for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2013, 1, 13484.	5.2	103
39	Hierarchical NiCo2O4 nanorods as an efficient cathode catalyst for rechargeable non-aqueous Liâ€“O2 batteries. Electrochemistry Communications, 2013, 31, 88-91.	2.3	99
40	Phosphorus and Oxygen Dualâ€Doped Porous Carbon Spheres with Enhanced Reaction Kinetics as Anode Materials for Highâ€Performance Potassiumâ€Ion Hybrid Capacitors. Advanced Functional Materials, 2021, 31, 2102060.	7.8	96
41	3D mesoporous hybrid NiCo₂O₄@graphene nanoarchitectures as electrode materials for supercapacitors with enhanced performances. Journal of Materials Chemistry A, 2014, 2, 8103-8109.	5.2	94
42	The Rise of Prussian Blue Analogs: Challenges and Opportunities for Highâ€Performance Cathode Materials in Potassiumâ€Ion Batteries. Small Structures, 2021, 2, 2000054.	6.9	91
43	Constructing Atomic Heterometallic Sites in Ultrathin Nickel-Incorporated Cobalt Phosphide Nanosheets via a Boron-Assisted Strategy for Highly Efficient Water Splitting. Nano Letters, 2021, 21, 823-832.	4.5	91
44	Nanocomposites of CoO and a mesoporous carbon (CMK-3) as a high performance cathode catalyst for lithium-oxygen batteries. Nano Research, 2012, 5, 460-469.	5.8	90
45	Modified Tetrathiafulvalene as an Organic Conductor for Improving Performances of Liâ€“O₂ Batteries. Angewandte Chemie - International Edition, 2017, 56, 8505-8509.	7.2	90
46	Construction of Hierarchical K_{1.39}Mn₃O₆ Spheres via AlF₃ Coating for Highâ€Performance Potassiumâ€Ion Batteries. Advanced Energy Materials, 2019, 9, 1803757.	10.2	83
47	Hierarchical macroporous/mesoporous NiCo₂O₄nanosheets as cathode catalysts for rechargeable Liâ€“O₂batteries. Journal of Materials Chemistry A, 2014, 2, 12053.	5.2	82
48	Hierarchical Porous Carbon Spheres for Highâ€Performance Naâ€“O₂ Batteries. Advanced Materials, 2017, 29, 1606816.	11.1	81
49	Porous graphene wrapped CoO nanoparticles for highly efficient oxygen evolution. Journal of Materials Chemistry A, 2015, 3, 5402-5408.	5.2	79
50	Porous poly(vinylidene fluoride-co-hexafluoropropylene) polymer membrane with sandwich-like architecture for highly safe lithium ion batteries. Journal of Membrane Science, 2014, 472, 133-140.	4.1	75
51	Enhancement of the Rate Capability of LiFePO₄ by a New Highly Graphitic Carbon-Coating Method. ACS Applied Materials & Interfaces, 2016, 8, 15225-15231.	4.0	74
52	Aegis of Lithium-Rich Cathode Materials via Heterostructured LiAlF₄ Coating for High-Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 33260-33268.	4.0	74
53	3D Interconnected Carbon Fiber Networkâ€Enabled Ultralong Life Na₃V₂(PO₄)₃@Carbon Paper Cathode for Sodiumâ€Ion Batteries. Small, 2017, 13, 1603318.	5.2	72
54	Temperatureâ€Dependent Nucleation and Growth of Dendriteâ€Free Lithium Metal Anodes. Angewandte Chemie, 2019, 131, 11486-11490.	1.6	72

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55	Ultra-stable sodium metal-iodine batteries enabled by an in-situ solid electrolyte interphase. Nano Energy, 2019, 57, 692-702.	8.2	72
56	Nanoengineering of Advanced Carbon Materials for Sodiumâ€Ion Batteries. Small, 2021, 17, e2007431.	5.2	72
57	3D Networked Tin Oxide/Graphene Aerogel with a Hierarchically Porous Architecture for Highâ€Rate Performance Sodiumâ€Ion Batteries. ChemSusChem, 2015, 8, 2948-2955.	3.6	70
58	Selfâ€Assembling Synthesis of Freeâ€standing Nanoporous Grapheneâ€“Transitionâ€Metal Oxide Flexible Electrodes for Highâ€Performance Lithiumâ€Ion Batteries and Supercapacitors. Chemistry - an Asian Journal, 2014, 9, 206-211.	1.7	62
59	Ni/YSZ and Niâ€“CeO2/YSZ anodes prepared by impregnation for solid oxide fuel cells. Journal of Power Sources, 2007, 169, 253-258.	4.0	61
60	Porous carbon nanocages encapsulated with tin nanoparticles for high performance sodium-ion batteries. Energy Storage Materials, 2016, 5, 180-190.	9.5	61
61	An optimized LiNO3/DMSO electrolyte for high-performance rechargeable Liâ€“O2 batteries. RSC Advances, 2014, 4, 11115.	1.7	60
62	Enhancement of stability for lithium oxygen batteries by employing electrolytes gelled by poly(vinylidene fluoride-co-hexafluoropropylene) and tetraethylene glycol dimethyl ether. Electrochimica Acta, 2015, 183, 56-62.	2.6	58
63	Atomic-scale regulation of anionic and cationic migration in alkali metal batteries. Nature Communications, 2021, 12, 4184.	5.8	57
64	Unraveling the catalytic activities of ruthenium nanocrystals in high performance aprotic Liâ€“O2 batteries. Nano Energy, 2016, 28, 486-494.	8.2	56
65	Recent developments of aprotic lithium-oxygen batteries: functional materials determine the electrochemical performance. Science Bulletin, 2017, 62, 442-452.	4.3	54
66	A free-standing LiFePO₄â€“carbon paper hybrid cathode for flexible lithium-ion batteries. Green Chemistry, 2016, 18, 2691-2698.	4.6	53
67	Wintersweetâ€Flowerâ€Like CoFe₂O₄/MWCNTs Hybrid Material for Highâ€Capacity Reversible Lithium Storage. Chemistry - an Asian Journal, 2012, 7, 1940-1946.	1.7	50
68	Achieving Highâ€Performance 3D K⁺â€Preâ€intercalated Ti₃C₂T_x MXene for Potassiumâ€Ion Hybrid Capacitors via Regulating Electrolyte Solvation Structure. Angewandte Chemie - International Edition, 2021, 60, 26246-26253.	7.2	50
69	K₂Ti₂O₅@C Microspheres with Enhanced K⁺ Intercalation Pseudocapacitance Ensuring Fast Potassium Storage and Longâ€Term Cycling Stability. Small, 2020, 16, e1906131.	5.2	49
70	Morphology control and electrochemical properties of nanosize LiFePO4 cathode material synthesized by co-precipitation combined with in situ polymerization. Journal of Alloys and Compounds, 2011, 509, 1040-1044.	2.8	42
71	Ruthenium decorated hierarchically ordered macroâ€“mesoporous carbon for lithium oxygen batteries. Journal of Materials Chemistry A, 2016, 4, 9774-9780.	5.2	42
72	Dendrite-Free Sodium Metal Batteries Enabled by the Release of Contact Strain on Flexible and Sodiophilic Matrix. Nano Letters, 2020, 20, 6112-6119.	4.5	42

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73	Dual Protection of Sulfur by Carbon Nanospheres and Graphene Sheets for Lithiumâ€“Sulfur Batteries. Chemistry - A European Journal, 2014, 20, 5224-5230.	1.7	39
74	A Bifunctional Organic Redox Catalyst for Rechargeable Lithiumâ€“Oxygen Batteries with Enhanced Performances. Advanced Science, 2016, 3, 1500285.	5.6	37
75	Mixed Lithium Oxynitride/Oxysulfide as an Interphase Protective Layer To Stabilize Lithium Anodes for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 39695-39704.	4.0	35
76	A Dualâ€Protective Artificial Interface for Stable Lithium Metal Anodes. Advanced Energy Materials, 2021, 11, 2102242.	10.2	35
77	Synthesis of Singleâ€Crystalline Spinel LiMn₂O₄ Nanorods for Lithiumâ€Ion Batteries with High Rate Capability and Long Cycle Life. Chemistry - A European Journal, 2014, 20, 17125-17131.	1.7	32
78	A multi-functional gel co-polymer bridging liquid electrolyte and solid cathode nanoparticles: An efficient route to Liâ€“O 2 batteries with improved performance. Energy Storage Materials, 2017, 7, 1-7.	9.5	30
79	Stable Conversion Chemistryâ€Based Lithium Metal Batteries Enabled by Hierarchical Multifunctional Polymer Electrolytes with Nearâ€Single Ion Conduction. Angewandte Chemie, 2019, 131, 6062-6067.	1.6	30
80	Challenges for Developing Rechargeable Roomâ€Temperature Sodium Oxygen Batteries. Advanced Materials Technologies, 2018, 3, 1800110.	3.0	29
81	A simple approach to prepare nickel hydroxide nanosheets for enhanced pseudocapacitive performance. RSC Advances, 2014, 4, 19476-19481.	1.7	28
82	A long-life lithium-oxygen battery via a molecular quenching/mediating mechanism. Science Advances, 2022, 8, eabm1899.	4.7	26
83	Conducting polymer-doped polyprrrole as an effective cathode catalyst for Li-O2 batteries. Materials Research Bulletin, 2013, 48, 4979-4983.	2.7	25
84	High-efficiency cathode potassium compensation and interfacial stability improvement enabled by dipotassium squarate for potassium-ion batteries. Energy and Environmental Science, 2022, 15, 3015-3023.	15.6	25
85	Oxygen redox chemistry in lithium-rich cathode materials for Li-ion batteries: Understanding from atomic structure to nano-engineering. Nano Materials Science, 2022, 4, 322-338.	3.9	24
86	TEMPO-Ionic Liquids as Redox Mediators and Solvents for Liâ€“O₂ Batteries. Journal of Physical Chemistry C, 2020, 124, 5087-5092.	1.5	23
87	Coral-like V2O5 nanowhiskers as high-capacity cathode materials for lithium-ion batteries. RSC Advances, 2013, 3, 5069.	1.7	20
88	Atomic-scale identification of influencing factors of sodium dendrite growth on different current collectors. Journal of Materials Chemistry A, 2020, 8, 10199-10205.	5.2	20
89	3D Freeâ€Standing NiCo₂O₄@graphene Foam for Highâ€Performance Supercapacitors. Energy Technology, 2016, 4, 737-743.	1.8	18
90	Ultrathin Porous NiCo₂O₄ Nanosheets for Lithiumâ€“Oxygen Batteries: An Excellent Performance Deriving from an Enhanced Solution Mechanism. ACS Applied Energy Materials, 2019, 2, 4215-4223.	2.5	18

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91	Hierarchical Mn₃O₄ Anchored on 3D Graphene Aerogels via Câ”Oâ”Mn Linkage with Superior Electrochemical Performance for Flexible Asymmetric Supercapacitor. Chemistry - A European Journal, 2020, 26, 9314-9318.	1.7	15
92	Unraveling the Promotion Effects of a Soluble Cobaltocene Catalyst with Respect to Liâ€“O₂ Battery Discharge. Journal of Physical Chemistry Letters, 2020, 11, 7028-7034.	2.1	14
93	Biomass-Derived P/N-Co-Doped Carbon Nanosheets Encapsulate Cu3P Nanoparticles as High-Performance Anode Materials for Sodiumâ€“Ion Batteries. Frontiers in Chemistry, 2020, 8, 316.	1.8	13
94	Modified Tetrathiafulvalene as an Organic Conductor for Improving Performances of Liâ”O 2 Batteries. Angewandte Chemie, 2017, 129, 8625-8629.	1.6	11
95	Nitronyl Nitroxide-Based Redox Mediators for Li-O2 Batteries. Journal of Physical Chemistry C, 2021, 125, 2824-2830.	1.5	10
96	Scalable Preparation of LiFePO₄/C Nanocomposites with sp²â€Coordinated Carbon Coating as Highâ€Performance Cathode Materials for Lithiumâ€Ion Batteries. ChemElectroChem, 2015, 2, 2096-2103.	1.7	9
97	Hydrothermal synthesis of FeP4 and Fe2P-loaded Î±-Fe2O3 hollow spheres and applications in gas sensors. Sensors and Actuators B: Chemical, 2014, 194, 27-32.	4.0	6
98	Porous LiFePO4/C Microspheres as High-Power Cathode Materials for Lithium Ion Batteries. Journal of Nanoscience and Nanotechnology, 2013, 13, 3655-3659.	0.9	4
99	Reaktionsmechanismen Lithiumâ€reicher Schichtâ€Kathodenmaterialien fÃ¼r Hochenergieâ€Lithiumâ€Ionenbatterien. Angewandte Chemie, 2021, 133, 2236-2248.	1.6	4
100	Achieving Highâ€Performance 3D K⁺â€Preâ€intercalated Ti₃C₂T_x MXene for Potassiumâ€Ion Hybrid Capacitors via Regulating Electrolyte Solvation Structure. Angewandte Chemie, 2021, 133, 26450-26457.	1.6	3
101	Batteries: 3D Hyperbranched Hollow Carbon Nanorod Architectures for High-Performance Lithium-Sulfur Batteries (Adv. Energy Mater. 8/2014). Advanced Energy Materials, 2014, 4, n/a-n/a.	10.2	2
102	Next-Generation Rechargeable Batteries: Challenges for Developing Rechargeable Room-Temperature Sodium Oxygen Batteries (Adv. Mater. Technol. 9/2018). Advanced Materials Technologies, 2018, 3, 1870035.	3.0	2
103	Stable and Dendriteâ€Free Lithium Metal Anodes Enabled by Ionic/Electronic Li₂S/Mo Interlayer. Advanced Energy and Sustainability Research, 2021, 2, 2100051.	2.8	1
104	Advances in Electrochemical Energy Materials and Technologies. Electrochemical Energy Storage and Conversion, 2015, , 33-53.	0.0	0
105	Nanomaterials for alkali metal/oxygen batteries. Frontiers of Nanoscience, 2021, 19, 199-227.	0.3	0