Bing Sun

List of Publications by Year
in descending order

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105 papers	10,054 citations	25423 59 h-index	38517 99 g-index
108 all docs	108 docs citations	108 times ranked	13443 citing authors

#	Article	IF	Citations
1	A long-life lithium-oxygen battery via a molecular quenching/mediating mechanism. Science Advances, 2022, 8, eabm1899.	4.7	26
2	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
3	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
4	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
5	Reaktionsmechanismen Lithiumâ€reicher Schichtâ€Kathodenmaterialien fÃ¼r Hochenergieâ€Lithiumâ€Ionenbatterien. Angewandte Chemie, 2021, 133, 2236-2248.	1.6	4
6	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
7	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
8	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
9	Nonâ€Flammable Liquid and Quasiâ€Solid Electrolytes toward Highlyâ€Safe Alkali Metalâ€Based Batteries. Advanced Functional Materials, 2021, 31, 2008644.	7.8	127
10	Nitronyl Nitroxide-Based Redox Mediators for Li-O2 Batteries. Journal of Physical Chemistry C, 2021, 125, 2824-2830.	1.5	10
11	Nanoengineering of Advanced Carbon Materials for Sodiumâ€Ion Batteries. Small, 2021, 17, e2007431.	5.2	72
12	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
13	Atomic-scale regulation of anionic and cationic migration in alkali metal batteries. Nature Communications, 2021, 12, 4184.	5.8	57
14	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
15	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
16	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
17	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
18	A Dualâ€Protective Artificial Interface for Stable Lithium Metal Anodes. Advanced Energy Materials, 2021, 11, 2102242.	10.2	35

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19	Nanomaterials for alkali metal/oxygen batteries. Frontiers of Nanoscience, 2021, 19, 199-227.	0.3	0
20	Design Strategies to Enable the Efficient Use of Sodium Metal Anodes in Highâ€Energy Batteries. Advanced Materials, 2020, 32, e1903891.	11.1	173
21	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
22	2D Superlattices for Efficient Energy Storage and Conversion. Advanced Materials, 2020, 32, e1902654.	11.1	117
23	K₂Ti₂O₅@C Microspheres with Enhanced K⁺ Intercalation Pseudocapacitance Ensuring Fast Potassium Storage and Longâ€Term Cycling Stability. Small, 2020, 16, e1906131.	5.2	49
24	MXeneâ€Based Dendriteâ€Free Potassium Metal Batteries. Advanced Materials, 2020, 32, e1906739.	11.1	244
25	Revitalising sodiumâ€“sulfur batteries for non-high-temperature operation: a crucial review. Energy and Environmental Science, 2020, 13, 3848-3879.	15.6	172
26	Immunizing lithium metal anodes against dendrite growth using protein molecules to achieve high energy batteries. Nature Communications, 2020, 11, 5429.	5.8	129
27	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
28	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
29	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
30	Strain engineering of two-dimensional multilayered heterostructures for beyond-lithium-based rechargeable batteries. Nature Communications, 2020, 11, 3297.	5.8	134
31	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
32	Highly disordered cobalt oxide nanostructure induced by sulfur incorporation for efficient overall water splitting. Nano Energy, 2020, 71, 104652.	8.2	105
33	TEMPO-Ionic Liquids as Redox Mediators and Solvents for Liâ€“O₂ Batteries. Journal of Physical Chemistry C, 2020, 124, 5087-5092.	1.5	23
34	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
35	A versatile functionalized ionic liquid to boost the solution-mediated performances of lithium-oxygen batteries. Nature Communications, 2019, 10, 602.	5.8	138
36	Temperatureâ€Dependent Nucleation and Growth of Dendriteâ€Free Lithium Metal Anodes. Angewandte Chemie - International Edition, 2019, 58, 11364-11368.	7.2	182

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37	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
38	Temperatureâ€Dependent Nucleation and Growth of Dendriteâ€Free Lithium Metal Anodes. Angewandte Chemie, 2019, 131, 11486-11490.	1.6	72
39	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
40	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
41	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
42	Ultra-stable sodium metal-iodine batteries enabled by an in-situ solid electrolyte interphase. Nano Energy, 2019, 57, 692-702.	8.2	72
43	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
44	Three-dimensional pie-like current collectors for dendrite-free lithium metal anodes. Energy Storage Materials, 2018, 11, 127-133.	9.5	124
45	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
46	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
47	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
48	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
49	Dendriteâ€Free Sodiumâ€Metal Anodes for Highâ€Energy Sodiumâ€Metal Batteries. Advanced Materials, 2018, 30, e1801334.	11.1	267
50	Challenges for Developing Rechargeable Roomâ€Temperature Sodium Oxygen Batteries. Advanced Materials Technologies, 2018, 3, 1800110.	3.0	29
51	Recent developments of aprotic lithium-oxygen batteries: functional materials determine the electrochemical performance. Science Bulletin, 2017, 62, 442-452.	4.3	54
52	Modified Tetrathiafulvalene as an Organic Conductor for Improving Performances of Liâ^'O₂ Batteries. Angewandte Chemie - International Edition, 2017, 56, 8505-8509.	7.2	90
53	Modified Tetrathiafulvalene as an Organic Conductor for Improving Performances of Liâ^'O 2 Batteries. Angewandte Chemie, 2017, 129, 8625-8629.	1.6	11
54	Hierarchical Porous Carbon Spheres for Highâ€Performance Naâ€“O₂ Batteries. Advanced Materials, 2017, 29, 1606816.	11.1	81

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55	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
56	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
57	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
58	3D Freeâ€Standing NiCo₂O₄@graphene Foam for Highâ€Performance Supercapacitors. Energy Technology, 2016, 4, 737-743.	1.8	18
59	Ruthenium decorated hierarchically ordered macroâ€“mesoporous carbon for lithium oxygen batteries. Journal of Materials Chemistry A, 2016, 4, 9774-9780.	5.2	42
60	Unraveling the catalytic activities of ruthenium nanocrystals in high performance aprotic Liâ€“O2 batteries. Nano Energy, 2016, 28, 486-494.	8.2	56
61	Porous carbon nanocages encapsulated with tin nanoparticles for high performance sodium-ion batteries. Energy Storage Materials, 2016, 5, 180-190.	9.5	61
62	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
63	A Bifunctional Organic Redox Catalyst for Rechargeable Lithiumâ€“Oxygen Batteries with Enhanced Performances. Advanced Science, 2016, 3, 1500285.	5.6	37
64	A free-standing LiFePO₄â€“carbon paper hybrid cathode for flexible lithium-ion batteries. Green Chemistry, 2016, 18, 2691-2698.	4.6	53
65	Advances in Electrochemical Energy Materials and Technologies. Electrochemical Energy Storage and Conversion, 2015, , 33-53.	0.0	0
66	Mesoporous Carbon Nanocube Architecture for Highâ€Performance Lithiumâ€“Oxygen Batteries. Advanced Functional Materials, 2015, 25, 4436-4444.	7.8	155
67	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
68	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
69	Graphene-Co3O4 nanocomposite as electrocatalyst with high performance for oxygen evolution reaction. Scientific Reports, 2015, 5, 7629.	1.6	234
70	Porous graphene wrapped CoO nanoparticles for highly efficient oxygen evolution. Journal of Materials Chemistry A, 2015, 3, 5402-5408.	5.2	79
71	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
72	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

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73	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
74	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
75	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
76	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
77	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
78	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
79	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
80	3D Hyperbranched Hollow Carbon Nanorod Architectures for Highâ€Performance Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2014, 4, 1301761.	10.2	154
81	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
82	Hierarchical 3D mesoporous silicon@graphene nanoarchitectures for lithium ion batteries with superior performance. Nano Research, 2014, 7, 85-94.	5.8	163
83	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
84	Multi-shelled hollow carbon nanospheres for lithiumâ€“sulfur batteries with superior performances. Journal of Materials Chemistry A, 2014, 2, 16199-16207.	5.2	116
85	An optimized LiNO3/DMSO electrolyte for high-performance rechargeable Liâ€“O2 batteries. RSC Advances, 2014, 4, 11115.	1.7	60
86	A simple approach to prepare nickel hydroxide nanosheets for enhanced pseudocapacitive performance. RSC Advances, 2014, 4, 19476-19481.	1.7	28
87	Hierarchical macroporous/mesoporous NiCo₂O₄nanosheets as cathode catalysts for rechargeable Liâ€“O₂batteries. Journal of Materials Chemistry A, 2014, 2, 12053.	5.2	82
88	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
89	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
90	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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91	Mesoporous graphene paper immobilised sulfur as a flexible electrode for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2013, 1, 13484.	5.2	103
92	Hierarchical NiCo2O4 nanorods as an efficient cathode catalyst for rechargeable non-aqueous Liâ€“O2 batteries. Electrochemistry Communications, 2013, 31, 88-91.	2.3	99
93	Coral-like V2O5 nanowhiskers as high-capacity cathode materials for lithium-ion batteries. RSC Advances, 2013, 3, 5069.	1.7	20
94	Conducting polymer-doped polyprrrole as an effective cathode catalyst for Li-O2 batteries. Materials Research Bulletin, 2013, 48, 4979-4983.	2.7	25
95	Ruthenium nanocrystals as cathode catalysts for lithium-oxygen batteries with a superior performance. Scientific Reports, 2013, 3, 2247.	1.6	158
96	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
97	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
98	Wintersweetâ€Flowerâ€Like CoFe₂O₄/MWCNTs Hybrid Material for Highâ€Capacity Reversible Lithium Storage. Chemistry - an Asian Journal, 2012, 7, 1940-1946.	1.7	50
99	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
100	Graphene nanosheets as cathode catalysts for lithium-air batteries with an enhanced electrochemical performance. Carbon, 2012, 50, 727-733.	5.4	238
101	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
102	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
103	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
104	Highly efficient and large-scale synthesis of graphene by electrolytic exfoliation. Carbon, 2009, 47, 3242-3246.	5.4	322
105	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