

Xin-Bo Zhang

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

226
papers

25,643
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158
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237
ext. papers

28,238
ext. citations

13.5
avg, IF

7.56
L-index

#	Paper	IF	Citations
226	Oxygen electrocatalysts in metal-air batteries: from aqueous to nonaqueous electrolytes. <i>Chemical Society Reviews</i> , 2014 , 43, 7746-86	58.5	1073
225	Electrochemical Reduction of N under Ambient Conditions for Artificial N Fixation and Renewable Energy Storage Using N /NH Cycle. <i>Advanced Materials</i> , 2017 , 29, 1604799	24	762
224	ZIF-8 derived graphene-based nitrogen-doped porous carbon sheets as highly efficient and durable oxygen reduction electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 14235-9	16.4	724
223	In Situ Coupling of Strung Co ₄ N and Intertwined N-C Fibers toward Free-Standing Bifunctional Cathode for Robust, Efficient, and Flexible Zn-Air Batteries. <i>Journal of the American Chemical Society</i> , 2016 , 138, 10226-31	16.4	710
222	Advances and challenges for flexible energy storage and conversion devices and systems. <i>Energy and Environmental Science</i> , 2014 , 7, 2101	35.4	650
221	Nitrogen-doped porous carbon nanosheets as low-cost, high-performance anode material for sodium-ion batteries. <i>ChemSusChem</i> , 2013 , 6, 56-60	8.3	558
220	Metal-organic framework (MOF) as a template for syntheses of nanoporous carbons as electrode materials for supercapacitor. <i>Carbon</i> , 2010 , 48, 456-463	10.4	537
219	Tailoring deposition and morphology of discharge products towards high-rate and long-life lithium-oxygen batteries. <i>Nature Communications</i> , 2013 , 4, 2438	17.4	478
218	Integrated Three-Dimensional Carbon Paper/Carbon Tubes/Cobalt-Sulfide Sheets as an Efficient Electrode for Overall Water Splitting. <i>ACS Nano</i> , 2016 , 10, 2342-8	16.7	471
217	Synthesis of perovskite-based porous La(0.75)Sr(0.25)MnO ₃ nanotubes as a highly efficient electrocatalyst for rechargeable lithium-oxygen batteries. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 3887-90	16.4	455
216	One-step seeding growth of magnetically recyclable Au@Co core-shell nanoparticles: highly efficient catalyst for hydrolytic dehydrogenation of ammonia borane. <i>Journal of the American Chemical Society</i> , 2010 , 132, 5326-7	16.4	425
215	Iron-nanoparticle-catalyzed hydrolytic dehydrogenation of ammonia borane for chemical hydrogen storage. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 2287-9	16.4	409
214	Engraving copper foil to give large-scale binder-free porous CuO arrays for a high-performance sodium-ion battery anode. <i>Advanced Materials</i> , 2014 , 26, 2273-9, 2284	24	395
213	Artificial Protection Film on Lithium Metal Anode toward Long-Cycle-Life Lithium-Oxygen Batteries. <i>Advanced Materials</i> , 2015 , 27, 5241-7	24	383
212	In situ fabrication of porous graphene electrodes for high-performance energy storage. <i>ACS Nano</i> , 2013 , 7, 2422-30	16.7	374
211	Graphene Oxide Gel-Derived, Free-Standing, Hierarchically Porous Carbon for High-Capacity and High-Rate Rechargeable Li-O ₂ Batteries. <i>Advanced Functional Materials</i> , 2012 , 22, 3699-3705	15.6	371
210	Liquid-phase chemical hydrogen storage: catalytic hydrogen generation under ambient conditions. <i>ChemSusChem</i> , 2010 , 3, 541-9	8.3	345

209	Electrospun materials for lithium and sodium rechargeable batteries: from structure evolution to electrochemical performance. <i>Energy and Environmental Science</i> , 2015 , 8, 1660-1681	35.4	326
208	C and N Hybrid Coordination Derived Co-C-N Complex as a Highly Efficient Electrocatalyst for Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15070-3	16.4	315
207	Homogeneous CoO on Graphene for Binder-Free and Ultralong-Life Lithium Ion Batteries. <i>Advanced Functional Materials</i> , 2013 , 23, 4345-4353	15.6	313
206	Boron- and nitrogen-based chemical hydrogen storage materials. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 2303-2311	6.7	308
205	3D ordered macroporous LaFeO ₃ as efficient electrocatalyst for LiO ₂ batteries with enhanced rate capability and cyclic performance. <i>Energy and Environmental Science</i> , 2014 , 7, 2213	35.4	306
204	Materials Design and System Construction for Conventional and New-Concept Supercapacitors. <i>Advanced Science</i> , 2017 , 4, 1600382	13.6	289
203	An efficient three-dimensional oxygen evolution electrode. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 5248-53	16.4	284
202	Reactive Multifunctional Template-Induced Preparation of Fe-N-Doped Mesoporous Carbon Microspheres Towards Highly Efficient Electrocatalysts for Oxygen Reduction. <i>Advanced Materials</i> , 2016 , 28, 7948-7955	24	279
201	Tailored Aromatic Carbonyl Derivative Polyimides for High-Power and Long-Cycle Sodium-Organic Batteries. <i>Advanced Energy Materials</i> , 2014 , 4, 1301651	21.8	267
200	Flexible lithium-oxygen battery based on a recoverable cathode. <i>Nature Communications</i> , 2015 , 6, 7892	17.4	259
199	Synergistic Effect between Metal-Nitrogen-Carbon Sheets and NiO Nanoparticles for Enhanced Electrochemical Water-Oxidation Performance. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10530-4	16.4	257
198	Novel DMSO-based electrolyte for high performance rechargeable Li-O ₂ batteries. <i>Chemical Communications</i> , 2012 , 48, 6948-50	5.8	255
197	A Biodegradable Polydopamine-Derived Electrode Material for High-Capacity and Long-Life Lithium-Ion and Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 10662-6	16.4	254
196	Room-temperature hydrogen generation from hydrous hydrazine for chemical hydrogen storage. <i>Journal of the American Chemical Society</i> , 2009 , 131, 9894-5	16.4	248
195	Self-assembly of ultrathin porous NiO nanosheets/graphene hierarchical structure for high-capacity and high-rate lithium storage. <i>Journal of Materials Chemistry</i> , 2012 , 22, 2844		236
194	Facile, mild and fast thermal-decomposition reduction of graphene oxide in air and its application in high-performance lithium batteries. <i>Chemical Communications</i> , 2012 , 48, 976-8	5.8	216
193	Functional and stability orientation synthesis of materials and structures in aprotic Li-O batteries. <i>Chemical Society Reviews</i> , 2018 , 47, 2921-3004	58.5	206
192	Converting cobalt oxide subunits in cobalt metal-organic framework into agglomerated Co ₃ O ₄ nanoparticles as an electrode material for lithium ion battery. <i>Journal of Power Sources</i> , 2010 , 195, 857-867	8.9	204

191	Prevention of dendrite growth and volume expansion to give high-performance aprotic bimetallic Li-Na alloy-O batteries. <i>Nature Chemistry</i> , 2019 , 11, 64-70	17.6	198
190	Electrostatic induced stretch growth of homogeneous Ni(OH) ₂ on graphene with enhanced high-rate cycling for supercapacitors. <i>Scientific Reports</i> , 2014 , 4, 3669	4.9	197
189	Three-dimensionally ordered macroporous FeF ₃ and its in situ homogenous polymerization coating for high energy and power density lithium ion batteries. <i>Energy and Environmental Science</i> , 2012 , 5, 8538-8544	35.4	193
188	Cathode Surface-Induced, Solvation-Mediated, Micrometer-Sized Li O Cycling for Li-O Batteries. <i>Advanced Materials</i> , 2016 , 28, 9620-9628	24	192
187	Surfactant-Free Aqueous Synthesis of Pure Single-Crystalline SnSe Nanosheet Clusters as Anode for High Energy- and Power-Density Sodium-Ion Batteries. <i>Advanced Materials</i> , 2017 , 29, 1602469	24	192
186	Transformation of Rusty Stainless-Steel Meshes into Stable, Low-Cost, and Binder-Free Cathodes for High-Performance Potassium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 7881-7885	16.4	191
185	Recent Progress in Electrocatalyst for Li-O ₂ Batteries. <i>Advanced Energy Materials</i> , 2017 , 7, 1700875	21.8	187
184	General and controllable synthesis strategy of metal oxide/TiO ₂ hierarchical heterostructures with improved lithium-ion battery performance. <i>Scientific Reports</i> , 2012 , 2, 701	4.9	187
183	Rhodium-Nickel nanoparticles grown on graphene as highly efficient catalyst for complete decomposition of hydrous hydrazine at room temperature for chemical hydrogen storage. <i>Energy and Environmental Science</i> , 2012 , 5, 6885	35.4	187
182	Bimetallic Au-Ni nanoparticles embedded in SiO ₂ nanospheres: synergetic catalysis in hydrolytic dehydrogenation of ammonia borane. <i>Chemistry - A European Journal</i> , 2010 , 16, 3132-7	4.8	184
181	Room temperature hydrolytic dehydrogenation of ammonia borane catalyzed by Co nanoparticles. <i>Journal of Power Sources</i> , 2010 , 195, 1091-1094	8.9	184
180	Generating Defect-Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9464-9469	16.4	178
179	Synthesis of longtime water/air-stable Ni nanoparticles and their high catalytic activity for hydrolysis of ammonia-borane for hydrogen generation. <i>Inorganic Chemistry</i> , 2009 , 48, 7389-93	5.1	177
178	Magnetically recyclable Fe@Pt core-shell nanoparticles and their use as electrocatalysts for ammonia borane oxidation: the role of crystallinity of the core. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2778-9	16.4	164
177	Advanced catalysts for sustainable hydrogen generation and storage via hydrogen evolution and carbon dioxide/nitrogen reduction reactions. <i>Progress in Materials Science</i> , 2018 , 92, 64-111	42.2	161
176	Preparation and catalysis of poly(N-vinyl-2-pyrrolidone) (PVP) stabilized nickel catalyst for hydrolytic dehydrogenation of ammonia borane. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 3816-3822	6.7	159
175	High-Energy-Density Flexible Potassium-Ion Battery Based on Patterned Electrodes. <i>Joule</i> , 2018 , 2, 736-746	24.6	158
174	Facile synthesis of a Co ₃ O ₄ /carbon nanotube composite and its superior performance as an anode material for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1141-1147	13	157

173	Facile and effective synthesis of reduced graphene oxide encapsulated sulfur via oil/water system for high performance lithium sulfur cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 11452		151
172	Magnetically recyclable Fe/Ni alloy catalyzed dehydrogenation of ammonia borane in aqueous solution under ambient atmosphere. <i>Journal of Power Sources</i> , 2009 , 194, 478-481	8.9	149
171	In Situ Construction of Stable Tissue-Directed/Reinforced Bifunctional Separator/Protection Film on Lithium Anode for Lithium-Oxygen Batteries. <i>Advanced Materials</i> , 2017 , 29, 1606552	24	148
170	In situ anchoring of Co ₉ S ₈ nanoparticles on N and S co-doped porous carbon tube as bifunctional oxygen electrocatalysts. <i>NPG Asia Materials</i> , 2016 , 8, e308-e308	10.3	147
169	Macroporous Interconnected Hollow Carbon Nanofibers Inspired by Golden-Toad Eggs toward a Binder-Free, High-Rate, and Flexible Electrode. <i>Advanced Materials</i> , 2016 , 28, 7494-500	24	145
168	In Situ Activating Ubiquitous Rust towards Low-Cost, Efficient, Free-Standing, and Recoverable Oxygen Evolution Electrodes. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 9937-41	16.4	142
167	Electrospun V ₂ O ₅ nanostructures with controllable morphology as high-performance cathode materials for lithium-ion batteries. <i>Chemistry - A European Journal</i> , 2012 , 18, 8987-93	4.8	142
166	In situ synthesis of magnetically recyclable graphene-supported Pd@Co core-shell nanoparticles as efficient catalysts for hydrolytic dehydrogenation of ammonia borane. <i>Journal of Materials Chemistry</i> , 2012 , 22, 12468		136
165	Challenges and perspectives for manganese-based oxides for advanced aqueous zinc-ion batteries. <i>Information Materials</i> , 2020 , 2, 237-260	23.1	136
164	Multi-ring aromatic carbonyl compounds enabling high capacity and stable performance of sodium-organic batteries. <i>Energy and Environmental Science</i> , 2015 , 8, 3160-3165	35.4	133
163	Gelatin-derived sustainable carbon-based functional materials for energy conversion and storage with controllability of structure and component. <i>Science Advances</i> , 2015 , 1, e1400035	14.3	130
162	Hollow Ni ₃ BiO ₂ nanosphere-catalyzed hydrolytic dehydrogenation of ammonia borane for chemical hydrogen storage. <i>Journal of Power Sources</i> , 2009 , 191, 209-216	8.9	130
161	Flexible Electrodes for Sodium-Ion Batteries: Recent Progress and Perspectives. <i>Advanced Materials</i> , 2017 , 29, 1703012	24	126
160	Reconstructed Orthorhombic V ₂ O ₅ Polyhedra for Fast Ion Diffusion in K-Ion Batteries. <i>Chem</i> , 2019 , 5, 168-179	16.2	123
159	A Biodegradable Polydopamine-Derived Electrode Material for High-Capacity and Long-Life Lithium-Ion and Sodium-Ion Batteries. <i>Angewandte Chemie</i> , 2016 , 128, 10820-10824	3.6	121
158	Flexible Metal-Air Batteries: Progress, Challenges, and Perspectives. <i>Small Methods</i> , 2018 , 2, 1700231	12.8	118
157	Recent Progress on Stability Enhancement for Cathode in Rechargeable Non-Aqueous Lithium-Oxygen Battery. <i>Advanced Energy Materials</i> , 2015 , 5, 1500633	21.8	117
156	Recent Advances toward the Rational Design of Efficient Bifunctional Air Electrodes for Rechargeable Zn-Air Batteries. <i>Small</i> , 2018 , 14, e1703843	11	115

155	One-step and rapid synthesis of "clean" and monodisperse dendritic Pt nanoparticles and their high performance toward methanol oxidation and p-nitrophenol reduction. <i>Nanoscale</i> , 2012 , 4, 1549-52	7.7	115
154	A Flexible and Wearable Lithium-Oxygen Battery with Record Energy Density achieved by the Interlaced Architecture inspired by Bamboo Slips. <i>Advanced Materials</i> , 2016 , 28, 8413-8418	24	114
153	Efficient PdNi and PdNi@Pd-catalyzed hydrogen generation via formic acid decomposition at room temperature. <i>Chemical Communications</i> , 2013 , 49, 10028-30	5.8	110
152	High aspect ratio MnOOH nanowires for high performance rechargeable nonaqueous lithium-oxygen batteries. <i>Chemical Communications</i> , 2012 , 48, 7598-600	5.8	106
151	Decorating Waste Cloth via Industrial Wastewater for Tube-Type Flexible and Wearable Sodium-Ion Batteries. <i>Advanced Materials</i> , 2017 , 29, 1603719	24	105
150	One-step hydrothermal synthesis of SnS ₂ /graphene composites as anode material for highly efficient rechargeable lithium ion batteries. <i>RSC Advances</i> , 2012 , 2, 5084	3.7	105
149	Alkali Metal Anodes for Rechargeable Batteries. <i>Chem</i> , 2019 , 5, 313-338	16.2	103
148	Reversible Nitrogen Fixation Based on a Rechargeable Lithium-Nitrogen Battery for Energy Storage. <i>Chem</i> , 2017 , 2, 525-532	16.2	102
147	In Situ Coupling FeM (M = Ni, Co) with Nitrogen-Doped Porous Carbon toward Highly Efficient Trifunctional Electrocatalyst for Overall Water Splitting and Rechargeable Zn/Air Battery. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1700020	5.9	102
146	Progress of rechargeable lithium metal batteries based on conversion reactions. <i>National Science Review</i> , 2017 , 4, 54-70	10.8	102
145	Flexible and Foldable Li-O ₂ Battery Based on Paper-Ink Cathode. <i>Advanced Materials</i> , 2015 , 27, 8095-10124	12.4	101
144	Pure Single-Crystalline NaVO Nanobelts as Superior Cathode Materials for Rechargeable Sodium-Ion Batteries. <i>Advanced Science</i> , 2015 , 2, 1400018	13.6	99
143	Engineering Ultrathin C ₃ N ₄ Quantum Dots on Graphene as a Metal-Free Water Reduction Electrocatalyst. <i>ACS Catalysis</i> , 2018 , 8, 3965-3970	13.1	99
142	A stable sulfone based electrolyte for high performance rechargeable Li-O ₂ batteries. <i>Chemical Communications</i> , 2012 , 48, 11674-6	5.8	97
141	Nanoengineered Ultralight and Robust All-Metal Cathode for High-Capacity, Stable Lithium-Oxygen Batteries. <i>ACS Central Science</i> , 2017 , 3, 598-604	16.8	95
140	Dendritic Ni-P-coated melamine foam for a lightweight, low-cost, and amphiphatic three-dimensional current collector for binder-free electrodes. <i>Advanced Materials</i> , 2014 , 26, 7264-70	24	94
139	Cable-Type Water-Survivable Flexible Li-O ₂ Battery. <i>Small</i> , 2016 , 12, 3101-5	11	94
138	Recent advances in metal/nitrogen/carbon catalysts for electrochemical water splitting. <i>Materials Chemistry Frontiers</i> , 2017 , 1, 2155-2173	7.8	92

137	In situ generated FeF ₃ in homogeneous iron matrix toward high-performance cathode material for sodium-ion batteries. <i>Nano Energy</i> , 2014 , 10, 295-304	17.1	90
136	Blood-Capillary-Inspired, Free-Standing, Flexible, and Low-Cost Super-Hydrophobic N-CNTs@SS Cathodes for High-Capacity, High-Rate, and Stable Li-Air Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1702242	21.8	88
135	Co-gelation synthesis of porous graphitic carbons with high surface area and their applications. <i>Carbon</i> , 2011 , 49, 161-169	10.4	87
134	Facile and controllable one-pot synthesis of an ordered nanostructure of Co(OH) ₂ nanosheets and their modification by oxidation for high-performance lithium-ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 3764		85
133	Non-noble metals applied to solar water splitting. <i>Energy and Environmental Science</i> , 2018 , 11, 3128-3156	5.4	85
132	Iron-chelated hydrogel-derived bifunctional oxygen electrocatalyst for high-performance rechargeable Zn air batteries. <i>Nano Research</i> , 2017 , 10, 4436-4447	10	82
131	An Efficient Three-Dimensional Oxygen Evolution Electrode. <i>Angewandte Chemie</i> , 2013 , 125, 5356-5361	3.6	81
130	Direct electrodeposition of cobalt oxide nanosheets on carbon paper as free-standing cathode for LiO ₂ battery. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 6081-6085	13	80
129	Self-assembled large-area Co(OH) ₂ nanosheets/ionic liquid modified graphene heterostructures toward enhanced energy storage. <i>Journal of Materials Chemistry</i> , 2012 , 22, 3404		78
128	Facile and Low-Cost Synthesis of Large-Area Pure V ₂ O ₅ Nanosheets for High-Capacity and High-Rate Lithium Storage over a Wide Temperature Range. <i>ChemPlusChem</i> , 2012 , 77, 124-128	2.8	76
127	Iron-Nanoparticle-Catalyzed Hydrolytic Dehydrogenation of Ammonia Borane for Chemical Hydrogen Storage. <i>Angewandte Chemie</i> , 2008 , 120, 2319-2321	3.6	76
126	Three-dimensional interconnected Ni(Fe)O _x Hy nanosheets on stainless steel mesh as a robust integrated oxygen evolution electrode. <i>Nano Research</i> , 2018 , 11, 1294-1300	10	76
125	CoBiO ₂ nanosphere-catalyzed hydrolytic dehydrogenation of ammonia borane for chemical hydrogen storage. <i>Journal of Power Sources</i> , 2010 , 195, 8209-8214	8.9	72
124	ZIF-8 Derived Graphene-Based Nitrogen-Doped Porous Carbon Sheets as Highly Efficient and Durable Oxygen Reduction Electrocatalysts. <i>Angewandte Chemie</i> , 2014 , 126, 14459-14463	3.6	69
123	Flexible 1D Batteries: Recent Progress and Prospects. <i>Advanced Materials</i> , 2020 , 32, e1901961	24	69
122	High-Performance Integrated Self-Package Flexible Li-O Battery Based on Stable Composite Anode and Flexible Gas Diffusion Layer. <i>Advanced Materials</i> , 2017 , 29, 1700378	24	67
121	Crystallographic and electrochemical characteristics of La _{0.7} Mg _{0.3} Ni _{3.5} (Al _{0.5} Mo _{0.5}) _x (x=0-0.8) hydrogen storage alloys. <i>Journal of Power Sources</i> , 2006 , 154, 290-297	8.9	66
120	Designing a self-healing protective film on a lithium metal anode for long-cycle-life lithium-oxygen batteries. <i>Energy Storage Materials</i> , 2019 , 18, 382-388	19.4	64

119	The developments and challenges of cerium half-cell in zinc/cerium redox flow battery for energy storage. <i>Electrochimica Acta</i> , 2013 , 90, 695-704	6.7	63
118	N-Doped C@Zn B O as a Low Cost and Environmentally Friendly Anode Material for Na-Ion Batteries: High Performance and New Reaction Mechanism. <i>Advanced Materials</i> , 2019 , 31, e1805432	24	63
117	Recent Progress on the Development of Metal-Air Batteries. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1709036	9.36	62
116	In Situ Designing a Gradient Li Capture and Quasi-Spontaneous Diffusion Anode Protection Layer toward Long-Life Li-O Batteries. <i>Advanced Materials</i> , 2020 , 32, e2004157	24	62
115	Green and Facile Fabrication of MWNTs@Sb ₂ S ₃ @PPy Coaxial Nanocables for High-Performance Na-Ion Batteries. <i>Particle and Particle Systems Characterization</i> , 2016 , 33, 493-499	3.1	62
114	Ultrathin, Lightweight, and Wearable Li-O Battery with High Robustness and Gravimetric/Volumetric Energy Density. <i>Small</i> , 2017 , 13, 1602952	11	61
113	The PVDF-HFP gel polymer electrolyte for Li-O ₂ battery. <i>Solid State Ionics</i> , 2018 , 318, 88-94	3.3	60
112	A new fuel cell using aqueous ammonia-borane as the fuel. <i>Journal of Power Sources</i> , 2007 , 168, 167-1718.9	18.9	60
111	Hierarchical Co ₃ O ₄ porous nanowires as an efficient bifunctional cathode catalyst for long life Li-O ₂ batteries. <i>Nano Research</i> , 2015 , 8, 576-583	10	58
110	Integrating 3D Flower-Like Hierarchical Cu ₂ NiSnS ₄ with Reduced Graphene Oxide as Advanced Anode Materials for Na-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 9178-84	9.5	57
109	CO ₂ -expanded ethanol chemical synthesis of a Fe ₃ O ₄ @graphene composite and its good electrochemical properties as anode material for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 3954	13	54
108	An Illumination-Assisted Flexible Self-Powered Energy System Based on a Li-O Battery. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16411-16415	16.4	52
107	Low-cost and facile one-pot synthesis of pure single-crystalline Cu _{0.95} V ₂ O ₅ nanoribbons: high capacity cathode material for rechargeable Li-ion batteries. <i>Chemical Communications</i> , 2011 , 47, 5250-2	5.8	52
106	Synergistic Effect between Metal-Nitrogen-Carbon Sheets and NiO Nanoparticles for Enhanced Electrochemical Water-Oxidation Performance. <i>Angewandte Chemie</i> , 2015 , 127, 10676-10680	3.6	50
105	Protecting the Lithium Metal Anode for a Safe Flexible Lithium-Air Battery in Ambient Air. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 18240-18245	16.4	49
104	In Situ CVD Derived Co-N-C Composite as Highly Efficient Cathode for Flexible Li-O Batteries. <i>Small</i> , 2018 , 14, e1800590	11	47
103	Co-embedded N-doped carbon fibers as highly efficient and binder-free cathode for NaO ₂ batteries. <i>Energy Storage Materials</i> , 2017 , 6, 1-8	19.4	47
102	Synthesis of Perovskite-Based Porous La _{0.75} Sr _{0.25} MnO ₃ Nanotubes as a Highly Efficient Electrocatalyst for Rechargeable Lithium-Oxygen Batteries. <i>Angewandte Chemie</i> , 2013 , 125, 3979-3982	3.6	47

101	Mild and cost-effective one-pot synthesis of pure single-crystalline $\text{Ag}_{0.33}\text{V}_2\text{O}_5$ nanowires for rechargeable Li-ion batteries. <i>ChemSusChem</i> , 2011 , 4, 1091-4	8.3	47
100	Transformation of Rusty Stainless-Steel Meshes into Stable, Low-Cost, and Binder-Free Cathodes for High-Performance Potassium-Ion Batteries. <i>Angewandte Chemie</i> , 2017 , 129, 7989-7993	3.6	44
99	In Situ Activating Ubiquitous Rust towards Low-Cost, Efficient, Free-Standing, and Recoverable Oxygen Evolution Electrodes. <i>Angewandte Chemie</i> , 2016 , 128, 10091-10095	3.6	44
98	Composition-tunable synthesis of clean hydrogen gas via a one-step synthesis of metal-free pyridinic-N-enriched self-supported CNTs: the synergy of electrocatalyst pyrolysis temperature and potential. <i>Green Chemistry</i> , 2017 , 19, 4284-4288	10	44
97	Suppressing Sodium Dendrites by Multifunctional Polyvinylidene Fluoride (PVDF) Interlayers with Nonthrough Pores and High Flux/Affinity of Sodium Ions toward Long Cycle Life Sodium Oxygen-Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1703931	15.6	42
96	Effect of Mn content on the structure and electrochemical characteristics of $\text{La}_{0.7}\text{Mg}_{0.3}\text{Ni}_{2.975-x}\text{Co}_{0.525}\text{Mn}_x$ ($x=0.4$) hydrogen storage alloys. <i>Electrochimica Acta</i> , 2005 , 50, 2911-2918	6.7	41
95	Hydronium Ion Batteries: A Sustainable Energy Storage Solution. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 6378-6380	16.4	39
94	Organic Carbonyl Compounds for Sodium-Ion Batteries: Recent Progress and Future Perspectives. <i>Chemistry - A European Journal</i> , 2018 , 24, 18235-18245	4.8	39
93	A renaissance of N,N-dimethylacetamide-based electrolytes to promote the cycling stability of LiO_2 batteries. <i>Energy and Environmental Science</i> , 2020 , 13, 3075-3081	35.4	39
92	Hybrid electrolyte with robust garnet-ceramic electrolyte for lithium anode protection in lithium-oxygen batteries. <i>Nano Research</i> , 2018 , 11, 3434-3441	10	38
91	Rapid and shape-controlled synthesis of clean star-like and concave Pd nanocrystallites and their high performance toward methanol oxidation. <i>Journal of Materials Chemistry</i> , 2012 , 22, 14861		38
90	The Stabilization Effect of CO in Lithium-Oxygen/CO Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 16661-16667	16.4	37
89	P3-type $\text{K}_{0.33}\text{Co}_{0.53}\text{Mn}_{0.47}\text{O}_{2-0.39}\text{H}_2\text{O}$: a novel bifunctional electrode for Na-ion batteries. <i>Materials Horizons</i> , 2017 , 4, 1122-1127	14.4	35
88	Lithium-Air Batteries: Air-Electrochemistry and Anode Stabilization. <i>Accounts of Chemical Research</i> , 2021 , 54, 632-641	24.3	33
87	Electrochemical oxidation of ammonia borane on gold electrode. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 174-179	6.7	32
86	Effect of La/Ce ratio on the structure and electrochemical characteristics of $\text{La}_{0.7-x}\text{Ce}_x\text{Mg}_{0.3}\text{Ni}_{2.8}\text{Co}_{0.5}$ ($x = 0.1-0.5$) hydrogen storage alloys. <i>Electrochimica Acta</i> , 2005 , 50, 1957-1964	6.7	32
85	Recent Progresses and Prospects of Cathode Materials for Non-aqueous Potassium-Ion Batteries. <i>Electrochemical Energy Reviews</i> , 2018 , 1, 548-566	29.3	32
84	Growth of Ru-Modified Co_3O_4 Nanosheets on Carbon Textiles toward Flexible and Efficient Cathodes for Flexible LiO_2 Batteries. <i>Particle and Particle Systems Characterization</i> , 2016 , 33, 500-505	3.1	31

83	pH-switched luminescence and sensing properties of a carbon dot/polyaniline composite. <i>RSC Advances</i> , 2013 , 3, 5475	3.7	31
82	Generating Defect-Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. <i>Angewandte Chemie</i> , 2019 , 131, 9564-9569	3.6	30
81	Highly efficient and selective CO ₂ electro-reduction with atomic Fe-C-N hybrid coordination on porous carbon nanosheet. <i>Nano Research</i> , 2019 , 12, 2318-2323	10	30
80	Complete Dehydrogenation of N ₂ H ₄ BH ₃ over Noble-Metal-Free Ni _{0.5} Fe _{0.5} O _x /MIL-101 with High Activity and 100% H ₂ Selectivity. <i>Advanced Energy Materials</i> , 2018 , 8, 1800625	21.8	30
79	Synthesis and electrochemical properties of LiFePO ₄ /C composite cathode material prepared by a new route using supercritical carbon dioxide as a solvent. <i>Journal of Materials Chemistry</i> , 2011 , 21, 6975		30
78	A high performance anion exchange membrane-type ammonia borane fuel cell. <i>Journal of Power Sources</i> , 2008 , 182, 515-519	8.9	30
77	High-Capacity and Stable Li-O Batteries Enabled by a Trifunctional Soluble Redox Mediator. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 19311-19319	16.4	30
76	In Situ Coupling of Colloidal Silica and Li Salt Anion toward Stable Li Anode for Long-Cycle-Life Li-O ₂ Batteries. <i>Matter</i> , 2019 , 1, 881-892	12.7	29
75	Superior Oxygen Reduction Electrocatalyst: Hollow Porous Spinel Microsphere. <i>Chem</i> , 2018 , 4, 196-198	16.2	27
74	Crystal structure and electrochemical properties of rare earth non-stoichiometric AB ₅ -type alloy as negative electrode material in Ni-MH battery. <i>Journal of Solid State Chemistry</i> , 2004 , 177, 2373-2377	3.3	27
73	Trace amounts of water-induced distinct growth behaviors of NiO nanostructures on graphene in CO ₂ -expanded ethanol and their applications in lithium-ion batteries. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 7065-71	9.5	26
72	Optimized nitrogen-doped carbon with a hierarchically porous structure as a highly efficient cathode for NaO ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10008-10013	13	26
71	Ethnopharmacology of Hypericum species in China: A comprehensive review on ethnobotany, phytochemistry and pharmacology. <i>Journal of Ethnopharmacology</i> , 2020 , 254, 112686	5	25
70	Decorating carbon nanofibers with Mo ₂ C nanoparticles towards hierarchically porous and highly catalytic cathode for high-performance Li-O ₂ batteries. <i>Science Bulletin</i> , 2018 , 63, 433-440	10.6	25
69	Synthesis of porous and metallic CoB nanosheets towards a highly efficient electrocatalyst for rechargeable NaO ₂ batteries. <i>Energy and Environmental Science</i> , 2018 , 11, 2833-2838	35.4	25
68	The development and challenges of rechargeable non-aqueous lithium-air batteries. <i>International Journal of Smart and Nano Materials</i> , 2013 , 4, 27-46	3.6	24
67	Photoinduced decoration of NiO nanosheets/Ni foam with Pd nanoparticles towards a carbon-free and self-standing cathode for a lithium-oxygen battery with a low overpotential and long cycle life. <i>Materials Horizons</i> , 2018 , 5, 298-302	14.4	23
66	Unique structural trends in the lanthanoid oxocarbonyl complexes. <i>Inorganic Chemistry</i> , 2008 , 47, 4826-4831	3.1	23

65	Crystallographic and electrochemical characteristics of La _{0.7} Mg _{0.3} Ni _(5.0-x) (Al _{0.5} Mo _{0.5}) _x hydrogen-storage alloys. <i>ChemPhysChem</i> , 2005 , 6, 520-5	3.2	23
64	Silver-Intermediated Perovskite La _{0.9} FeO ₃ toward High-Performance Cathode Catalysts for Nonaqueous Lithium-Oxygen Batteries. <i>ACS Catalysis</i> , 2019 , 9, 11743-11752	13.1	22
63	Achieving of High Density/Utilization of Active Groups via Synergic Integration of C=N and C=O Bonds for Ultra-Stable and High-Rate Lithium-Ion Batteries. <i>Research</i> , 2018 , 2018, 1936735	7.8	22
62	An Adjustable-Porosity Plastic Crystal Electrolyte Enables High-Performance All-Solid-State Lithium-Oxygen Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 9382-9387	16.4	21
61	CeO ₂ @NiCo ₂ O ₄ nanowire arrays on carbon textiles as high performance cathode for Li-O ₂ batteries. <i>Science China Chemistry</i> , 2017 , 60, 1540-1545	7.9	21
60	Recent progress on transition metal oxides as advanced materials for energy conversion and storage. <i>Energy Storage Materials</i> , 2021 , 42, 317-369	19.4	21
59	Cation Segregation of A-Site Deficiency Perovskite LaFeO ₃ Nanoparticles toward High-Performance Cathode Catalysts for Rechargeable Li-O ₂ Battery. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 25465-25472	9.5	20
58	Lithium and Stannum Hybrid Anodes for Flexible Wire-Type Lithium-Oxygen Batteries. <i>Small Structures</i> , 2020 , 1, 2000015	8.7	20
57	Hybrid solid electrolyte enabled dendrite-free Li anodes for high-performance quasi-solid-state lithium-oxygen batteries. <i>National Science Review</i> , 2021 , 8, nwa150	10.8	20
56	Electrode Protection in High-Efficiency Li-O ₂ Batteries. <i>ACS Central Science</i> , 2020 , 6, 2136-2148	16.8	19
55	Crystallographic and electrochemical characteristics of La _{0.7} Mg _{0.3} Ni _{3-x} (Al _{0.5} Mo _{0.5}) _x (x = 0-0.4) hydrogen storage alloys. <i>Electrochimica Acta</i> , 2005 , 50, 3407-3413	6.7	19
54	P3-type K _{0.32} Fe _{0.35} Mn _{0.65} O ₂ ·0.39H ₂ O: a promising cathode for Na-ion full batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 13075-13081	13	19
53	β-MnO ₂ hollow clews for rechargeable Li-air batteries with improved cyclability. <i>Science Bulletin</i> , 2012 , 57, 4210-4214		18
52	N,O-codoped porous carbon nanosheets for capacitors with ultra-high capacitance. <i>Science China Materials</i> , 2016 , 59, 547-557	7.1	18
51	Batteries: Homogeneous CoO on Graphene for Binder-Free and Ultralong-Life Lithium Ion Batteries (Adv. Funct. Mater. 35/2013). <i>Advanced Functional Materials</i> , 2013 , 23, 4274-4274	15.6	17
50	Imine-Rich Poly(o-phenylenediamine) as High-Capacity Trifunctional Organic Electrode for Alkali-Ion Batteries. <i>CCS Chemistry</i> , 2019 , 1, 365-372	7.2	17
49	Anchoring Iron-EDTA Complex on Graphene toward the Synthesis of Highly Efficient Fe-N-C Oxygen Reduction Electrocatalyst for Fuel Cells. <i>Chinese Journal of Chemistry</i> , 2018 , 36, 287-292	4.9	15
48	Structure and electrochemical characteristics of Ti _{0.25} Zr _x V _{0.35} Cr _{0.1} Ni _{0.3} (x=0.05-0.15) alloys. <i>Intermetallics</i> , 2005 , 13, 1141-1145	3.5	15

47	A binder-free, flexible cathode for rechargeable Na-O ₂ batteries. <i>Chinese Journal of Catalysis</i> , 2016 , 37, 1172-1179	11.3	15
46	Hydroniumionenbatterien: eine nachhaltige Lösung zur Energiespeicherung. <i>Angewandte Chemie</i> , 2017 , 129, 6476-6478	3.6	14
45	Experimental and theoretical investigation of the cycle durability against CO and degradation mechanism of the LaNi ₅ hydrogen storage alloy. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 208-217	5.7	14
44	Structure and electrochemical characteristics of RENi ₃ alloy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005 , 117, 123-128	3.1	14
43	Designing multi-shelled metal oxides: towards high energy-density lithium-ion batteries. <i>Science China Materials</i> , 2016 , 59, 521-522	7.1	12
42	Non-noble-metal bismuth nanoparticle-decorated bismuth vanadate nanoarray photoanode for efficient water splitting. <i>Materials Chemistry Frontiers</i> , 2018 , 2, 1799-1804	7.8	12
41	High-Capacity and Stable Li-O ₂ Batteries Enabled by a Trifunctional Soluble Redox Mediator. <i>Angewandte Chemie</i> , 2020 , 132, 19473-19481	3.6	11
40	The role of anisotropic structure and its aspect ratio: high-loading carbon nanospheres supported Pt nanowires with high performance toward methanol electrooxidation. <i>RSC Advances</i> , 2012 , 2, 401-403	3.7	10
39	Preparation and performance of a sulfur/graphene composite for rechargeable lithium-sulfur battery. <i>Journal of Physics: Conference Series</i> , 2012 , 339, 012003	0.3	10
38	Interface between Lithium Metal and Garnet Electrolyte: Recent Progress and Perspective. <i>Batteries and Supercaps</i> , 2020 , 3, 1006-1015	5.6	9
37	Crystallographic and Electrochemical Characteristics of La _{0.7} Mg _{0.3} Ni _{4.5} (Al _{0.5} Mo _{0.5}) _x (x = 0.8) Hydrogen Storage Alloys. <i>European Journal of Inorganic Chemistry</i> , 2005 , 2005, 2235-2241	2.3	9
36	Copper tetrazolate based metal-organic frameworks as highly efficient catalysts for artificially chemical and electrochemical CO ₂ conversion. <i>Nano Select</i> , 2020 , 1, 311-319	3.1	9
35	Hybrid Film from Nickel Oxide and Oxygenated Carbon Nanotube as Flexible Electrodes for Pseudocapacitors. <i>ChemNanoMat</i> , 2016 , 2, 698-703	3.5	8
34	Electrodes: Engraving Copper Foil to Give Large-Scale Binder-Free Porous CuO Arrays for a High-Performance Sodium-Ion Battery Anode (Adv. Mater. 14/2014). <i>Advanced Materials</i> , 2014 , 26, 2284-2284	2.4	8
33	Electrochemical properties of Ti _{0.17} Zr _{0.08} V _{0.35} Cr _{0.10} Ni _{0.30} alloy electrode. <i>Journal of Applied Electrochemistry</i> , 2006 , 36, 739-743	2.6	8
32	Hydrogen Bond-Assisted Solution Discharge in Aprotic Li-O Battery.. <i>Advanced Materials</i> , 2022 , e21104164	1.6	8
31	Integrated Bismuth Oxide Ultrathin Nanosheets/Carbon Foam Electrode for Highly Selective and Energy-Efficient Electrocatalytic Conversion of CO to HCOOH. <i>Chemistry - A European Journal</i> , 2019 , 26, 4013	4.8	7
30	Investigation of Pt nanoparticles with controlled size supported on carbon for dimethyl ether electrooxidation. <i>Journal of Power Sources</i> , 2013 , 225, 231-239	8.9	6

29	Soluble and Perfluorinated Polyelectrolyte for Safe and High-Performance Li-O Batteries.. <i>Angewandte Chemie - International Edition</i> , 2022 , e202116635	16.4	6
28	An Adjustable-Porosity Plastic Crystal Electrolyte Enables High-Performance All-Solid-State Lithium-Oxygen Batteries. <i>Angewandte Chemie</i> , 2020 , 132, 9468-9473	3.6	5
27	Pt/C anodic catalysts with controlled morphology for direct dimethyl ether fuel cell: The role of consecutive surface. <i>Electrochimica Acta</i> , 2011 , 56, 5966-5971	6.7	5
26	Existence of the Na \cdots H \cdots H \cdots O Dihydrogen Bond in the Hydrogenation Process by Na ₂ O: A First-Principles Identification. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 5064-5068	3.8	5
25	Stretchable Electrode Breakthrough: Archimedean Spiral Coil Lithium Anode. <i>Joule</i> , 2018 , 2, 1654-1656	27.8	4
24	Introduction to Metal-Air Batteries: Theory and Basic Principles 2018 , 1-9		4
23	CO adsorption on a LaNi ₅ hydrogen storage alloy surface: a theoretical investigation. <i>ChemPhysChem</i> , 2008 , 9, 1564-9	3.2	3
22	The structure and electrochemical characteristics of La _{0.67} Mg _{0.33} (Ni _{0.8} Co _{0.1} Mn _{0.1}) _x (x=2.5-8.0) multiphase alloys for nickel-metal hydride batteries. <i>Journal of Solid State Electrochemistry</i> , 2006 , 10, 236-242	2.6	3
21	Structural Optimization of Metal Oxyhalide for CO ₂ Reduction with High Selectivity and Current Density. <i>Chinese Journal of Chemistry</i> , 2020 , 38, 1752-1756	4.9	3
20	Lithium Ion Batteries: Graphene Oxide Gel-Derived, Free-Standing, Hierarchically Porous Carbon for High-Capacity and High-Rate Rechargeable Li-O ₂ Batteries (Adv. Funct. Mater. 17/2012). <i>Advanced Functional Materials</i> , 2012 , 22, 3745-3745	15.6	2
19	Dehydrogenation reaction for Na-O-H system: a first-principles study. <i>ChemPhysChem</i> , 2007 , 8, 1979-87	3.2	2
18	Crystal structure and electrochemical characteristics of La _{0.9} Mg _{0.1} Ni _{5-x} Sn _x (x = 0.1, 0.2, 0.3, 0.4) alloy electrodes. <i>Scripta Materialia</i> , 2005 , 53, 1123-1128	5.6	2
17	Flexible Metal-Air Batteries 2018 , 367-396		2
16	Solvation Effect on the Improved Sodium Storage Performance of N-Heteropentacenequinone for Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 26806-26812	16.4	2
15	Crystallographic and electrochemical characteristics of La _{0.7} Mg _{0.3} Ni _{5.5-x} (Al _{0.5} Mo _{0.5}) _x (x=0 to 0.8) hydrogen storage alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005 , 36, 2025-2030	2.3	1
14	Zn-Air Batteries 2018 , 265-291		1
13	Stabilization of Lithium-Metal Anode in Rechargeable Lithium-Air Batteries 2018 , 11-40		1
12	Solvation Effect on the Improved Sodium Storage Performance of N-Heteropentacenequinone for Sodium-Ion Batteries. <i>Angewandte Chemie</i> ,	3.6	1

- 11 Three Birds with One Stone: An Integrated Cathode-Electrolyte Structure for High-Performance Solid-State Lithium-Oxygen Batteries.. *Small*, **2022**, e2107833 11 1
- 10 Overcharge to Remove Cathode Passivation Layer for Reviving Failed Li-O₂ Batteries. *CCS Chemistry*, 1-29 7.2 0
- 9 The Stabilization Effect of CO₂ in Lithium-Oxygen/CO₂ Batteries. *Angewandte Chemie*, **2020**, 132, 16804 3.6
- 8 Flexible Lithium-Air Batteries **2018**, 183-213
- 7 Structures and electrochemical characteristics of several kinds of alloys. *Research on Chemical Intermediates*, **2006**, 32, 403-417 2.8
- 6 Perspectives on the Development of Metal-Air Batteries **2018**, 397-406
- 5 Li-Air Batteries: Discharge Products **2018**, 41-63
- 4 Electrolytes for Li-O₂ Batteries **2018**, 65-94
- 3 Li-Oxygen Battery: Parasitic Reactions **2018**, 95-124
- 2 Li-Air Battery: Electrocatalysts **2018**, 125-149
- 1 Spatiotemporal Operando X-ray Diffraction Study on Li-Air Battery **2018**, 207-232