

Renjie Chen

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108
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300
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18,871
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avg. IF

7.11
L-index

#	Paper	IF	Citations
293	The pursuit of solid-state electrolytes for lithium batteries: from comprehensive insight to emerging horizons. <i>Materials Horizons</i> , 2016 , 3, 487-516	14.4	414
292	Sustainable Recycling Technology for Li-Ion Batteries and Beyond: Challenges and Future Prospects. <i>Chemical Reviews</i> , 2020 , 120, 7020-7063	68.1	358
291	Toward sustainable and systematic recycling of spent rechargeable batteries. <i>Chemical Society Reviews</i> , 2018 , 47, 7239-7302	58.5	358
290	Graphene-based three-dimensional hierarchical sandwich-type architecture for high-performance Li/S batteries. <i>Nano Letters</i> , 2013 , 13, 4642-9	11.5	358
289	Recovery of cobalt and lithium from spent lithium ion batteries using organic citric acid as leachant. <i>Journal of Hazardous Materials</i> , 2010 , 176, 288-93	12.8	344
288	Environmental friendly leaching reagent for cobalt and lithium recovery from spent lithium-ion batteries. <i>Waste Management</i> , 2010 , 30, 2615-21	8.6	292
287	Free-standing hierarchically sandwich-type tungsten disulfide nanotubes/graphene anode for lithium-ion batteries. <i>Nano Letters</i> , 2014 , 14, 5899-904	11.5	243
286	Succinic acid-based leaching system: A sustainable process for recovery of valuable metals from spent Li-ion batteries. <i>Journal of Power Sources</i> , 2015 , 282, 544-551	8.9	239
285	Ni-Rich LiNiCoMnO Oxide Coated by Dual-Conductive Layers as High Performance Cathode Material for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 29732-29743	9.5	224
284	A Review of Functional Binders in Lithium Sulfur Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1802107	21.8	203
283	Sustainable Recovery of Cathode Materials from Spent Lithium-Ion Batteries Using Lactic Acid Leaching System. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 5224-5233	8.3	193
282	Recovery of valuable metals from spent lithium-ion batteries by ultrasonic-assisted leaching process. <i>Journal of Power Sources</i> , 2014 , 262, 380-385	8.9	182
281	Nitrogen-Rich Mesoporous Carbon as Anode Material for High-Performance Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 27124-30	9.5	168
280	Process for recycling mixed-cathode materials from spent lithium-ion batteries and kinetics of leaching. <i>Waste Management</i> , 2018 , 71, 362-371	8.6	163
279	Improvement of Rate and Cycle Performance by Rapid Polyaniline Coating of a MWCNT/Sulfur Cathode. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 24411-24417	3.8	162
278	Multifunctional AlPO ₄ coating for improving electrochemical properties of low-cost Li[Li _{0.2} Fe _{0.1} Ni _{0.15} Mn _{0.55}]O ₂ cathode materials for lithium-ion batteries. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 3773-81	9.5	160
277	Biomimetic ant-nest ionogel electrolyte boosts the performance of dendrite-free lithium batteries. <i>Energy and Environmental Science</i> , 2017 , 10, 1660-1667	35.4	157

276	In Situ Grain Boundary Functionalization for Stable and Efficient Inorganic CsPbI ₂ Br Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1801050	21.8	149
275	From a historic review to horizons beyond: lithium-sulphur batteries run on the wheels. <i>Chemical Communications</i> , 2015 , 51, 18-33	5.8	147
274	Preparation of LiCoO ₂ films from spent lithium-ion batteries by a combined recycling process. <i>Hydrometallurgy</i> , 2011 , 108, 220-225	4	144
273	An effective approach to protect lithium anode and improve cycle performance for Li-S batteries. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 15542-9	9.5	143
272	Electrolytes and Electrolyte/Electrode Interfaces in Sodium-Ion Batteries: From Scientific Research to Practical Application. <i>Advanced Materials</i> , 2019 , 31, e1808393	24	141
271	Advanced High Energy Density Secondary Batteries with Multi-Electron Reaction Materials. <i>Advanced Science</i> , 2016 , 3, 1600051	13.6	141
270	A novel boron-rich Prussian blue synthesized by inhibitor control as cathode for sodium ion batteries. <i>Nano Energy</i> , 2017 , 39, 273-283	17.1	133
269	The Recycling of Spent Lithium-Ion Batteries: a Review of Current Processes and Technologies. <i>Electrochemical Energy Reviews</i> , 2018 , 1, 461-482	29.3	131
268	Design of surface protective layer of LiF/FeF ₃ nanoparticles in Li-rich cathode for high-capacity Li-ion batteries. <i>Nano Energy</i> , 2015 , 15, 164-176	17.1	129
267	Nitrogen-doped carbon/graphene hybrid anode material for sodium-ion batteries with excellent rate capability. <i>Journal of Power Sources</i> , 2016 , 319, 195-201	8.9	129
266	3D-0D Graphene-FeO Quantum Dot Hybrids as High-Performance Anode Materials for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26878-26885	9.5	125
265	Hierarchical porous Co _{0.85} Se@reduced graphene oxide ultrathin nanosheets with vacancy-enhanced kinetics as superior anodes for sodium-ion batteries. <i>Nano Energy</i> , 2018 , 53, 524-535	17.1	125
264	Freestanding three-dimensional core-shell nanoarrays for lithium-ion battery anodes. <i>Nature Communications</i> , 2016 , 7, 11774	17.4	124
263	A High-Efficiency CoSe Electrocatalyst with Hierarchical Porous Polyhedron Nanoarchitecture for Accelerating Polysulfides Conversion in Li-S Batteries. <i>Advanced Materials</i> , 2020 , 32, e2002168	24	123
262	Ionogel Electrolytes for High-Performance Lithium Batteries: A Review. <i>Advanced Energy Materials</i> , 2018 , 8, 1702675	21.8	122
261	Economical recycling process for spent lithium-ion batteries and macro- and micro-scale mechanistic study. <i>Journal of Power Sources</i> , 2018 , 377, 70-79	8.9	113
260	Anode Interface Engineering and Architecture Design for High-Performance Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2019 , 31, e1806532	24	109
259	Atomic Iron Catalysis of Polysulfide Conversion in Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 19311-19317	9.5	103

258	Chemical Inhibition Method to Synthesize Highly Crystalline Prussian Blue Analogs for Sodium-Ion Battery Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31669-31676	9.5	102
257	Systematic Effect for an Ultralong Cycle Lithium-Sulfur Battery. <i>Nano Letters</i> , 2015 , 15, 7431-9	11.5	98
256	Advanced Lithium-Sulfur Batteries Enabled by a Bio-Inspired Polysulfide Adsorptive Brush. <i>Advanced Functional Materials</i> , 2016 , 26, 8418-8426	15.6	98
255	Development and Challenges of Functional Electrolytes for High-Performance Lithium-Sulfur Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1800919	15.6	98
254	Novel solid-state Li/LiFePO ₄ battery configuration with a ternary nanocomposite electrolyte for practical applications. <i>Advanced Materials</i> , 2011 , 23, 5081-5	24	95
253	Enhanced Performance of a Lithium-Sulfur Battery Using a Carbonate-Based Electrolyte. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 10372-5	16.4	94
252	Exceptional adsorption and catalysis effects of hollow polyhedra/carbon nanotube confined CoP nanoparticles superstructures for enhanced lithium-sulfur batteries. <i>Nano Energy</i> , 2019 , 64, 103965	17.1	92
251	Surface Modification of Li-Rich Cathode Materials for Lithium-Ion Batteries with a PEDOT:PSS Conducting Polymer. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 23095-104	9.5	91
250	An investigation of functionalized electrolyte using succinonitrile additive for high voltage lithium-ion batteries. <i>Journal of Power Sources</i> , 2016 , 306, 70-77	8.9	91
249	Metal-organic frameworks composites threaded on the CNT knitted separator for suppressing the shuttle effect of lithium sulfur batteries. <i>Energy Storage Materials</i> , 2018 , 14, 383-391	19.4	91
248	Boosting Fast Sodium Storage of a Large-Scalable Carbon Anode with an Ultralong Cycle Life. <i>Advanced Energy Materials</i> , 2018 , 8, 1703159	21.8	90
247	Sustainable Recycling and Regeneration of Cathode Scraps from Industrial Production of Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 7041-7049	8.3	90
246	Synthesis, characterization, and electrochemistry of cathode material Li[Li _{0.2} Co _{0.13} Ni _{0.13} Mn _{0.54}]O ₂ using organic chelating agents for lithium-ion batteries. <i>Journal of Power Sources</i> , 2013 , 228, 206-213	8.9	89
245	Electrolytes for Rechargeable Lithium-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 2974-2997	16.4	89
244	Advanced cathode materials for lithium-ion batteries using nanoarchitectonics. <i>Nanoscale Horizons</i> , 2016 , 1, 423-444	10.8	88
243	Layer-by-Layer Assembled Architecture of Polyelectrolyte Multilayers and Graphene Sheets on Hollow Carbon Spheres/Sulfur Composite for High-Performance Lithium-Sulfur Batteries. <i>Nano Letters</i> , 2016 , 16, 5488-94	11.5	88
242	Innovative Application of Acid Leaching to Regenerate Li(Ni _{1/3} Co _{1/3} Mn _{1/3})O ₂ Cathodes from Spent Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 5959-5968	8.3	86
241	High-Rate and Cycling-Stable Nickel-Rich Cathode Materials with Enhanced Li(+) Diffusion Pathway. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 582-7	9.5	86

240	Electrostatic Self-assembly of 0D-2D SnO Quantum Dots/TiCT MXene Hybrids as Anode for Lithium-Ion Batteries. <i>Nano-Micro Letters</i> , 2019 , 11, 65	19.5	83
239	Toward Practical High-Energy Batteries: A Modular-Assembled Oval-Like Carbon Microstructure for Thick Sulfur Electrodes. <i>Advanced Materials</i> , 2017 , 29, 1700598	24	82
238	Flexible, conductive, and highly pressure-sensitive graphene-polyimide foam for pressure sensor application. <i>Composites Science and Technology</i> , 2018 , 164, 187-194	8.6	82
237	Structural and Electrochemical Study of Hierarchical LiNi(1/3)Co(1/3)Mn(1/3)O ₂ Cathode Material for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 21939-47	9.5	81
236	Synthesis and electrochemical performance of cathode material Li _{1.2} Co _{0.13} Ni _{0.13} Mn _{0.54} O ₂ from spent lithium-ion batteries. <i>Journal of Power Sources</i> , 2014 , 249, 28-34	8.9	80
235	Nature-Inspired NaTiO Nanosheets-Formed Three-Dimensional Microflowers Architecture as a High-Performance Anode Material for Rechargeable Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 11669-11677	9.5	79
234	ElectrochemoMechanical Issues at the Interfaces in Solid-State Lithium Metal Batteries. <i>Advanced Functional Materials</i> , 2019 , 29, 1900950	15.6	79
233	High voltage and safe electrolytes based on ionic liquid and sulfone for lithium-ion batteries. <i>Journal of Power Sources</i> , 2013 , 233, 115-120	8.9	79
232	Liquid-in-Solid and Solid-in-Liquid Electrolytes with High Rate Capacity and Long Cycling Life for Lithium-Ion Batteries. <i>Chemistry of Materials</i> , 2016 , 28, 848-856	9.6	78
231	Platinum-Coated Hollow Graphene Nanocages as Cathode Used in Lithium-Oxygen Batteries. <i>Advanced Functional Materials</i> , 2016 , 26, 7626-7633	15.6	75
230	Na ₂ Ni _x Co _{1-x} Fe(CN) ₆ : A class of Prussian blue analogs with transition metal elements as cathode materials for sodium ion batteries. <i>Electrochemistry Communications</i> , 2015 , 59, 91-94	5.1	74
229	Selective Recovery of Li and Fe from Spent Lithium-Ion Batteries by an Environmentally Friendly Mechanochemical Approach. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 11029-11035	8.3	73
228	Organically modified silica-supported ionogels electrolyte for high temperature lithium-ion batteries. <i>Nano Energy</i> , 2017 , 31, 9-18	17.1	72
227	Preparation of Prussian Blue Submicron Particles with a Pore Structure by Two-Step Optimization for Na-Ion Battery Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 16078-86	9.5	71
226	Use of Ce to Reinforce the Interface of Ni-Rich LiNi Co Mn O Cathode Materials for Lithium-Ion Batteries under High Operating Voltage. <i>ChemSusChem</i> , 2019 , 12, 935-943	8.3	71
225	Revealing of Active Sites and Catalytic Mechanism in N-Coordinated Fe, Ni Dual-Doped Carbon with Superior Acidic Oxygen Reduction than Single-Atom Catalyst. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 1404-1410	6.4	70
224	A Chemical Precipitation Method Preparing Hollow-Core-Shell Heterostructures Based on the Prussian Blue Analogs as Cathode for Sodium-Ion Batteries. <i>Small</i> , 2018 , 14, e1801246	11	70
223	Butylene sulfite as a film-forming additive to propylene carbonate-based electrolytes for lithium ion batteries. <i>Journal of Power Sources</i> , 2007 , 172, 395-403	8.9	70

222	Protecting lithium/sodium metal anode with metal-organic framework based compact and robust shield. <i>Nano Energy</i> , 2019 , 60, 866-874	17.1	69
221	Environmentally benign process for selective recovery of valuable metals from spent lithium-ion batteries by using conventional sulfation roasting. <i>Green Chemistry</i> , 2019 , 21, 5904-5913	10	68
220	Exposing the {010} Planes by Oriented Self-Assembly with Nanosheets To Improve the Electrochemical Performances of Ni-Rich Li[NiCoMn]O Microspheres. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 6407-6414	9.5	67
219	Graphene-wrapped sulfur/metal organic framework-derived microporous carbon composite for lithium sulfur batteries. <i>APL Materials</i> , 2014 , 2, 124109	5.7	66
218	Facile Synthesis of Boron-Doped rGO as Cathode Material for High Energy Li-O ₂ Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 23635-45	9.5	65
217	Nature-Inspired, Graphene-Wrapped 3D MoS Ultrathin Microflower Architecture as a High-Performance Anode Material for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 22323-22331	9.5	64
216	A 3D flower-like VO ₂ /MXene hybrid architecture with superior anode performance for sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 1315-1322	13	63
215	Vitamin K as a high-performance organic anode material for rechargeable potassium ion batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 12559-12564	13	62
214	Coralline Glassy Lithium Phosphate-Coated LiFePO ₄ Cathodes with Improved Power Capability for Lithium Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 6013-6021	3.8	62
213	Ultrathin Surface Coating of Nitrogen-Doped Graphene Enables Stable Zinc Anodes for Aqueous Zinc-Ion Batteries. <i>Advanced Materials</i> , 2021 , 33, e2101649	24	62
212	A Comprehensive Review of the Advancement in Recycling the Anode and Electrolyte from Spent Lithium Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 13527-13554	8.3	61
211	Light-weight functional layer on a separator as a polysulfide immobilizer to enhance cycling stability for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 17033-17041	13	61
210	Recent advances in nanostructured carbon for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 1604-1630	13	60
209	Improving the cycling stability of Ni-rich cathode materials by fabricating surface rock salt phase. <i>Electrochimica Acta</i> , 2018 , 292, 217-226	6.7	60
208	Pre-oxidizing the precursors of Nickel-rich cathode materials to regulate their Li ⁺ /Ni ²⁺ cation ordering towards cyclability improvements. <i>Journal of Power Sources</i> , 2018 , 396, 734-741	8.9	59
207	A Li ⁺ conductive metal organic framework electrolyte boosts the high-temperature performance of dendrite-free lithium batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 9530-9536	13	57
206	Gluing Carbon Black and Sulfur at Nanoscale: A Polydopamine-Based Nano-Binder for Double-Shelled Sulfur Cathodes. <i>Advanced Energy Materials</i> , 2017 , 7, 1601591	21.8	57
205	Ultrathin single-crystalline TiO ₂ nanosheets anchored on graphene to be hybrid network for high-rate and long cycle-life sodium battery electrode application. <i>Journal of Power Sources</i> , 2017 , 342, 405-413	8.9	55

204	Refining Energy Levels in ReS ₂ Nanosheets by Low-Valent Transition-Metal Doping for Dual-Boosted Electrochemical Ammonia/Hydrogen Production. <i>Advanced Functional Materials</i> , 2020 , 30, 1907376	15.6	55
203	Ionic liquid electrolyte with highly concentrated LiTFSI for lithium metal batteries. <i>Electrochimica Acta</i> , 2018 , 285, 78-85	6.7	55
202	Boosting High-Rate Li-S Batteries by an MOF-Derived Catalytic Electrode with a Layer-by-Layer Structure. <i>Advanced Science</i> , 2019 , 6, 1802362	13.6	55
201	Preparation of MnO-Modified Graphite Sorbents from Spent Li-Ion Batteries for the Treatment of Water Contaminated by Lead, Cadmium, and Silver. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 25369-25378	8.5	55
200	Sulfur cathode based on layered carbon matrix for high-performance LiS batteries. <i>Nano Energy</i> , 2015 , 12, 742-749	17.1	55
199	The positive roles of integrated layered-spinel structures combined with nanocoating in low-cost Li-rich cathode Li[Li _{0.5} Fe _{0.5} Ni _{0.5} Mn _{0.5} O ₄] for lithium-ion batteries. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 21711-20	9.5	55
198	Reduced graphene oxide aerogel as stable host for dendrite-free sodium metal anode. <i>Energy Storage Materials</i> , 2019 , 22, 376-383	19.4	54
197	Flexible Hydrogel Electrolyte with Superior Mechanical Properties Based on Poly(vinyl alcohol) and Bacterial Cellulose for the Solid-State Zinc-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 15537-15542	9.5	53
196	Curbing polysulfide shuttling by synergistic engineering layer composed of supported Sn ₄ P ₃ nanodots electrocatalyst in lithium-sulfur batteries. <i>Nano Energy</i> , 2020 , 70, 104532	17.1	53
195	Self-Regulative Nanogelator Solid Electrolyte: A New Option to Improve the Safety of Lithium Battery. <i>Advanced Science</i> , 2016 , 3, 1500306	13.6	52
194	Tai Chi Philosophy driven rigid-flexible hybrid ionogel electrolyte for high-performance lithium battery. <i>Nano Energy</i> , 2018 , 47, 35-42	17.1	51
193	A green and effective room-temperature recycling process of LiFePO ₄ cathode materials for lithium-ion batteries. <i>Waste Management</i> , 2019 , 85, 437-444	8.6	50
192	Removal of sulfamethoxazole (SMX) and sulfapyridine (SPY) from aqueous solutions by biochars derived from anaerobically digested bagasse. <i>Environmental Science and Pollution Research</i> , 2018 , 25, 25659-25667	5.1	50
191	Low-Temperature Molten-Salt-Assisted Recovery of Valuable Metals from Spent Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 16144-16150	8.3	49
190	Ionic liquid-based electrolyte with binary lithium salts for high performance lithium-sulfur batteries. <i>Journal of Power Sources</i> , 2015 , 296, 10-17	8.9	49
189	Extrinsic Movable Ions in MAPbI ₃ Modulate Energy Band Alignment in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1701981	21.8	49
188	Electrocatalytic Interlayer with Fast Lithium Polysulfides Diffusion for Lithium-Sulfur Batteries to Enhance Electrochemical Kinetics under Lean Electrolyte Conditions. <i>Advanced Functional Materials</i> , 2020 , 30, 2000742	15.6	48
187	Hierarchical mesoporous/macroporous Co ₃ O ₄ ultrathin nanosheets as free-standing catalysts for rechargeable lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 17620-17626	13	47

186	An interfacial framework for breaking through the Li-ion transport barrier of Li-rich layered cathode materials. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 24292-24298	13	46
185	A 3D conductive carbon interlayer with ultrahigh adsorption capability for lithium-sulfur batteries. <i>Applied Surface Science</i> , 2018 , 440, 770-777	6.7	46
184	An MXene/CNTs@P nanohybrid with stable Ti-DB bonds for enhanced lithium ion storage. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 21766-21773	13	45
183	Polypyrrole-Modified Prussian Blue Cathode Material for Potassium Ion Batteries via In Situ Polymerization Coating. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 22339-22345	9.5	44
182	Conversion Mechanisms of Selective Extraction of Lithium from Spent Lithium-Ion Batteries by Sulfation Roasting. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18482-18489	9.5	43
181	Designing Realizable and Scalable Techniques for Practical Lithium Sulfur Batteries: A Perspective. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1398-1414	6.4	43
180	Enhanced Electrochemical Performance of Layered Lithium-Rich Cathode Materials by Constructing Spinel-Structure Skin and Ferric Oxide Islands. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8669-8678	9.5	42
179	An "Ether-In-Water" Electrolyte Boosts Stable Interfacial Chemistry for Aqueous Lithium-Ion Batteries. <i>Advanced Materials</i> , 2020 , 32, e2004017	24	42
178	Polyethylene waste carbons with a mesoporous network towards highly efficient supercapacitors. <i>Chemical Engineering Journal</i> , 2019 , 366, 313-320	14.7	42
177	Sodium titanium hexacyanoferrate as an environmentally friendly and low-cost cathode material for sodium-ion batteries. <i>Journal of Power Sources</i> , 2016 , 302, 7-12	8.9	41
176	Microorganism-moulded pomegranate-like Na ₃ V ₂ (PO ₄) ₃ /C nanocomposite for advanced sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9982-9990	13	40
175	Zinc ion as effective film morphology controller in perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 1093-1100	5.8	40
174	A modularly-assembled interlayer to entrap polysulfides and protect lithium metal anode for high areal capacity lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2017 , 9, 126-133	19.4	40
173	Fluffy carbon-coated red phosphorus as a highly stable and high-rate anode for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 11205-11213	13	39
172	Conductivity and Pseudocapacitance Optimization of Bimetallic Antimony-Indium Sulfide Anodes for Sodium-Ion Batteries with Favorable Kinetics. <i>Advanced Science</i> , 2018 , 5, 1800613	13.6	39
171	Study of the electrochemical characteristics of sulfonyl isocyanate/sulfone binary electrolytes for use in lithium-ion batteries. <i>Journal of Power Sources</i> , 2012 , 202, 322-331	8.9	38
170	Self-Assembly of 0D-2D Heterostructure Electrocatalyst from MOF and MXene for Boosted Lithium Polysulfide Conversion Reaction. <i>Advanced Materials</i> , 2021 , 33, e2101204	24	38
169	Boron-doped microporous nano carbon as cathode material for high-performance Li-S batteries. <i>Nano Research</i> , 2017 , 10, 426-436	10	37

168	Enhanced Air Stability and High Li-Ion Conductivity of LiPNbSO Glass-Ceramic Electrolyte for All-Solid-State Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 21548-21558	9.5	37
167	Enhanced Electrochemical Kinetics with Highly Dispersed Conductive and Electrocatalytic Mediators for Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2021 , 33, e2100810	24	35
166	A Soft Lithiophilic Graphene Aerogel for Stable Lithium Metal Anode. <i>Advanced Functional Materials</i> , 2020 , 30, 2002013	15.6	34
165	Toward Rapid-Charging Sodium-Ion Batteries using Hybrid-Phase Molybdenum Sulfide Selenide-Based Anodes. <i>Advanced Materials</i> , 2020 , 32, e2003534	24	34
164	Role of LaNiO ₃ in suppressing voltage decay of layered lithium-rich cathode materials. <i>Electrochimica Acta</i> , 2018 , 260, 986-993	6.7	34
163	Mg-Enriched Engineered Carbon from Lithium-Ion Battery Anode for Phosphate Removal. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2905-9	9.5	33
162	A Praline-Like Flexible Interlayer with Highly Mounted Polysulfide Anchors for Lithium-Sulfur Batteries. <i>Small</i> , 2017 , 13, 1700357	11	33
161	A diisocyanate/sulfone binary electrolyte based on lithium difluoro(oxalate)borate for lithium batteries. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 3659	13	33
160	Lithium Induced Nano-Sized Copper with Exposed Lithiophilic Surfaces to Achieve Dense Lithium Deposition for Lithium Metal Anode. <i>Advanced Functional Materials</i> , 2021 , 31, 2006950	15.6	33
159	3D Reticular LiNiMnO Cathode Material for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1516-1523	9.5	32
158	The effect of chromium substitution on improving electrochemical performance of low-cost Fe/Mn based Li-rich layered oxide as cathode material for lithium-ion batteries. <i>Journal of Power Sources</i> , 2014 , 245, 898-907	8.9	32
157	Surface modification of spinel MnO ₂ and its lithium adsorption properties from spent lithium ion batteries. <i>Applied Surface Science</i> , 2014 , 315, 59-65	6.7	31
156	Surface modification of a cobalt-free layered Li[Li _{0.2} Fe _{0.1} Ni _{0.15} Mn _{0.55}]O ₂ oxide with the FePO ₄ /Li ₃ PO ₄ composite as the cathode for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9528-9537	13	31
155	In situ formation of a LiF and LiAl alloy anode protected layer on a Li metal anode with enhanced cycle life. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 1247-1253	13	31
154	Competitive Solvation Enhanced Stability of Lithium Metal Anode in Dual-Salt Electrolyte. <i>Nano Letters</i> , 2021 , 21, 3310-3317	11.5	31
153	Confined Growth of Nano-NaV(PO) in Porous Carbon Framework for High-Rate Na-Ion Storage. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 3107-3115	9.5	31
152	Fast sodium storage kinetics of lantern-like Ti _{0.25} Sn _{0.75} S ₂ connected via carbon nanotubes. <i>Energy Storage Materials</i> , 2018 , 11, 100-111	19.4	29
151	Strongly Coupled Carbon Nanosheets/Molybdenum Carbide Nanocluster Hollow Nanospheres for High-Performance Aprotic Li-O Battery. <i>Small</i> , 2018 , 14, e1704366	11	28

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148	Enhanced Performance of a Lithium-Sulfur Battery Using a Carbonate-Based Electrolyte. <i>Angewandte Chemie</i> , 2016 , 128, 10528-10531	3.6	27
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141	Habit plane-driven P2-type manganese-based layered oxide as long cycling cathode for Na-ion batteries. <i>Journal of Power Sources</i> , 2018 , 383, 80-86	8.9	25
140	Three-Dimensional Carbon Current Collector Promises Small Sulfur Molecule Cathode with High Areal Loading for Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10882-10889	8.5	25
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138	Preparation and electrochemical properties of re-synthesized LiCoO ₂ from spent lithium-ion batteries. <i>Science Bulletin</i> , 2012 , 57, 4188-4194		24
137	Incorporation of CeF ₃ on single-atom dispersed Fe/N/C with oxophilic interface as highly durable electrocatalyst for proton exchange membrane fuel cell. <i>Journal of Catalysis</i> , 2019 , 374, 43-50	7.3	23
136	Facile synthesis of carbon-mediated porous nanocrystallite anatase TiO ₂ for improved sodium insertion capabilities as an anode for sodium-ion batteries. <i>Journal of Power Sources</i> , 2017 , 362, 283-290	8.9	23
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133	Metal-phosphide-doped Li ₇ P ₃ S ₁₁ glass-ceramic electrolyte with high ionic conductivity for all-solid-state lithium-sulfur batteries. <i>Electrochemistry Communications</i> , 2018 , 97, 100-104	5.1	23

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131	Ion-exchange synthesis of high-energy-density prussian blue analogues for sodium ion battery cathodes with fast kinetics and long durability. <i>Journal of Power Sources</i> , 2019 , 436, 226868	8.9	21
130	Bioinspired Controllable Electro-Chemomechanical Coloration Films. <i>Advanced Functional Materials</i> , 2019 , 29, 1806383	15.6	21
129	Bicomponent electrolyte additive excelling fluoroethylene carbonate for high performance Si-based anodes and lithiated Si-S batteries. <i>Energy Storage Materials</i> , 2019 , 20, 388-394	19.4	21
128	Biodegradable Bacterial Cellulose-Supported Quasi-Solid Electrolyte for Lithium Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 13950-13958	9.5	20
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126	Rational Design of MOF-Based Materials for Next-Generation Rechargeable Batteries. <i>Nano-Micro Letters</i> , 2021 , 13, 203	19.5	20
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65	Engineering Catalytic CoSe-ZnSe Heterojunctions Anchored on Graphene Aerogels for Bidirectional Sulfur Conversion Reactions. <i>Advanced Science</i> , 2021 , e2103456	13.6	9
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56	Defects and sulfur-doping design of porous carbon spheres for high-capacity potassium-ion storage. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 682-689	13	7
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29	Layer by Layer Assemble of Colloid Nanomaterial and Functional Multilayer Films for Energy Storage and Conversion 2019 , 255-278		3
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25	Vertical Channels Design for Polymer Electrolyte to Enhance Mechanical Strength and Ion Conductivity. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 42957-42965	9.5	3

24	P-Doped Ni/NiO Heterostructured Yolk-Shell Nanospheres Encapsulated in Graphite for Enhanced Lithium Storage. <i>Small</i> , 2021 , e2105897	11	3
23	2D Amorphous Mo-Doped CoB for Bidirectional Sulfur Catalysis in Lithium Sulfur Batteries. <i>Advanced Functional Materials</i> , 2202766	15.6	3
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13	Lightweight Shield to Stabilize Li Metal Anodes at High Current Rates. <i>ACS Applied Energy Materials</i> , 2021 , 4, 11878-11885	6.1	1
12	Bimetallic Antimony-Vanadium Oxide Nanoparticles Embedded in Graphene for Stable Lithium and Sodium Storage. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 21127-21137	9.5	1
11	Powering lithium-sulfur batteries by ultrathin sulfurized polyacrylonitrile nanosheets. <i>Nanoscale</i> , 2021 , 13, 16690-16695	7.7	1
10	Tailoring double-layer aromatic polymers with multi-active sites towards high performance aqueous Zn-organic batteries. <i>Materials Horizons</i> , 2021 , 8, 3124-3132	14.4	1
9	Environmental and economic assessment of structural repair technologies for spent lithium-ion battery cathode materials. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2022 , 29, 942-952	3.1	1
8	A Designed Lithiophilic Carbon Channel on Separator to Regulate Lithium Deposition Behavior. <i>Small</i> , 2021 , e2104390	11	0
7	Recycling of Rechargeable Batteries: Insights from a Bibliometrics-Based Analysis of Emerging Publishing and Research Trends. <i>Advanced Energy and Sustainability Research</i> , 2100153	1.6	0

6	Layered $K_{0.54}Mn_{0.78}Mg_{0.22}O_2$ as a high-performance cathode material for potassium-ion batteries. <i>Nano Research</i> , 1	10	○
5	Advanced Li-S Batteries Enabled by a Biomimetic Polysulfide-Engulfing Net. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23811-23821	9.5	○
4	Recovery valuable metals from spent lithium-ion batteries via a low-temperature roasting approach: Thermodynamics and conversion mechanism. <i>Journal of Hazardous Materials Advances</i> , 2021, 1, 100003		○
3	Stable Li/Cu ₂ O composite anodes enabled by a 3D conductive skeleton with lithiophilic nanowire arrays. <i>Journal of Power Sources</i> , 2022, 536, 231374	8.9	○
2	Sustainable Upcycling of Spent Lithium-Ion Batteries Cathode Materials: Stabilization by In Situ Li/Mn Disorder. <i>Advanced Energy Materials</i> , 2201174	21.8	○
1	Metal-organic framework derived cobalt phosphide nanoparticles encapsulated within hierarchical hollow carbon superstructure for stable sodium storage. <i>Chemical Engineering Journal</i> , 2022, 438, 134275	14.7	○