Ji-Guang Zhang

List of Publications by Citations

231 papers	34,052 citations	91 h-index	183 g-index
238 ext. papers	41,812 ext. citations	16.6 avg, IF	7.6 L-index

#	Paper	IF	Citations
231	Lithium metal anodes for rechargeable batteries. *Energy and Environmental Science*, **2014**, 7, 513-537	35.4	2793
230	High rate and stable cycling of lithium metal anode. *Nature Communications*, **2015**, 6, 6362	17.4	1485
229	Dendrite-free lithium deposition via self-healing electrostatic shield mechanism. *Journal of the American Chemical Society*, **2013**, 135, 4450-6	16.4	1374
228	Pathways for practical high-energy long-cycling lithium metal batteries. *Nature Energy*, **2019**, 4, 180-186	62.3	1202
227	A Review of Solid Electrolyte Interphases on Lithium Metal Anode. *Advanced Science*, **2016**, 3, 1500213	13.6	962
226	Hierarchically porous graphene as a lithium-air battery electrode. *Nano Letters*, **2011**, 11, 5071-8	11.5	871
225	Electrolyte additive enabled fast charging and stable cycling lithium metal batteries. *Nature Energy*, **2017**, 2,	62.3	769
224	Formation of the spinel phase in the layered composite cathode used in Li-ion batteries. *ACS Nano*, **2013**, 7, 760-7	16.7	656
223	Mesoporous silicon sponge as an anti-pulverization structure for high-performance lithium-ion battery anodes. *Nature Communications*, **2014**, 5, 4105	17.4	646
222	Advancing Lithium Metal Batteries. *Joule*, **2018**, 2, 833-845	27.8	620
221	Lewis acid-base interactions between polysulfides and metal organic framework in lithium sulfur batteries. *Nano Letters*, **2014**, 14, 2345-52	11.5	529
220	Dendrites and Pits: Untangling the Complex Behavior of Lithium Metal Anodes through Operando Video Microscopy. *ACS Central Science*, **2016**, 2, 790-801	16.8	477
219	Stable cycling of high-voltage lithium metal batteries in ether electrolytes. *Nature Energy*, **2018**, 3, 739-746	62.3	466
218	High-Voltage Lithium-Metal Batteries Enabled by Localized High-Concentration Electrolytes. *Advanced Materials*, **2018**, 30, e1706102	24	452
217	Making Li-Air Batteries Rechargeable: Material Challenges. *Advanced Functional Materials*, **2013**, 23, 987-1004	15.6	439
216	Intragranular cracking as a critical barrier for high-voltage usage of layer-structured cathode for lithium-ion batteries. *Nature Communications*, **2017**, 8, 14101	17.4	436
215	High Energy Density Lithium-Sulfur Batteries: Challenges of Thick Sulfur Cathodes. *Advanced Energy Materials*, **2015**, 5, 1402290	21.8	424

214	Tailoring grain boundary structures and chemistry of Ni-rich layered cathodes for enhanced cycle stability of lithium-ion batteries. *Nature Energy*, **2018**, 3, 600-605	62.3	402
213	High-performance LiNi0.5Mn1.5O4 spinel controlled by Mn3+ concentration and site disorder. *Advanced Materials*, **2012**, 24, 2109-16	24	371
212	Anodes for Rechargeable Lithium-Sulfur Batteries. *Advanced Energy Materials*, **2015**, 5, 1402273	21.8	362
211	Non-flammable electrolytes with high salt-to-solvent ratios for Li-ion and Li-metal batteries. *Nature Energy*, **2018**, 3, 674-681	62.3	357
210	Accurate Determination of Coulombic Efficiency for Lithium Metal Anodes and Lithium Metal Batteries. *Advanced Energy Materials*, **2018**, 8, 1702097	21.8	348
209	Localized High-Concentration Sulfone Electrolytes for High-Efficiency Lithium-Metal Batteries. *CheM*, **2018**, 4, 1877-1892	16.2	348
208	Monolithic solid–electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. *Nature Energy*, **2019**, 4, 796-805	62.3	325
207	Corrosion/fragmentation of layered composite cathode and related capacity/voltage fading during cycling process. *Nano Letters*, **2013**, 13, 3824-30	11.5	311
206	Self-smoothing anode for achieving high-energy lithium metal batteries under realistic conditions. *Nature Nanotechnology*, **2019**, 14, 594-601	28.7	300
205	Anode-Free Rechargeable Lithium Metal Batteries. *Advanced Functional Materials*, **2016**, 26, 7094-7102	15.6	297
204	In situ TEM study of lithiation behavior of silicon nanoparticles attached to and embedded in a carbon matrix. *ACS Nano*, **2012**, 6, 8439-47	16.7	291
203	High-energy lithium metal pouch cells with limited anode swelling and long stable cycles. *Nature Energy*, **2019**, 4, 551-559	62.3	283
202	Dendrite-free lithium deposition with self-aligned nanorod structure. *Nano Letters*, **2014**, 14, 6889-96	11.5	276
201	Enabling High-Voltage Lithium-Metal Batteries under Practical Conditions. *Joule*, **2019**, 3, 1662-1676	27.8	272
200	Li- and Mn-Rich Cathode Materials: Challenges to Commercialization. *Advanced Energy Materials*, **2017**, 7, 1601284	21.8	266
199	Functioning Mechanism of AlF3 Coating on the Li- and Mn-Rich Cathode Materials. *Chemistry of Materials*, **2014**, 26, 6320-6327	9.6	264
198	Hollow core–shell structured porous Si/C nanocomposites for Li-ion battery anodes. *Journal of Materials Chemistry*, **2012**, 22, 11014		259
197	High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. *Joule*, **2018**, 2, 1548-1558	27.8	257

196	Non-encapsulation approach for high-performance Li–S batteries through controlled nucleation and growth. *Nature Energy*, **2017**, 2, 813-820	62.3	256
195	Extremely Stable Sodium Metal Batteries Enabled by Localized High-Concentration Electrolytes. *ACS Energy Letters*, **2018**, 3, 315-321	20.1	241
194	Structural and Chemical Evolution of Li- and Mn-Rich Layered Cathode Material. *Chemistry of Materials*, **2015**, 27, 1381-1390	9.6	240
193	New Insights on the Structure of Electrochemically Deposited Lithium Metal and Its Solid Electrolyte Interphases via Cryogenic TEM. *Nano Letters*, **2017**, 17, 7606-7612	11.5	236
192	Demonstration of an electrochemical liquid cell for operando transmission electron microscopy observation of the lithiation/delithiation behavior of Si nanowire battery anodes. *Nano Letters*, **2013**, 13, 6106-12	11.5	232
191	Dendrite-free Li deposition using trace-amounts of water as an electrolyte additive. *Nano Energy*, **2015**, 15, 135-144	17.1	227
190	Mitigating voltage fade in cathode materials by improving the atomic level uniformity of elemental distribution. *Nano Letters*, **2014**, 14, 2628-35	11.5	223
189	Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. *Joule*, **2019**, 3, 1094-1105	27.8	219
188	Evolution of lattice structure and chemical composition of the surface reconstruction layer in Li(1.2)Ni(0.2)Mn(0.6)O2 cathode material for lithium ion batteries. *Nano Letters*, **2015**, 15, 514-22	11.5	213
187	Ionic liquid-enhanced solid state electrolyte interface (SEI) for lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2013**, 1, 8464	13	207
186	Understanding and applying coulombic efficiency in lithium metal batteries. *Nature Energy*, **2020**, 5, 561-568	56.9	201
185	High Voltage Operation of Ni-Rich NMC Cathodes Enabled by Stable Electrode/Electrolyte Interphases. *Advanced Energy Materials*, **2018**, 8, 1800297	21.8	201
184	Conflicting roles of nickel in controlling cathode performance in lithium ion batteries. *Nano Letters*, **2012**, 12, 5186-91	11.5	199
183	Effects of Carbonate Solvents and Lithium Salts on Morphology and Coulombic Efficiency of Lithium Electrode. *Journal of the Electrochemical Society*, **2013**, 160, A1894-A1901	3.9	196
182	Behavior of Lithium Metal Anodes under Various Capacity Utilization and High Current Density in Lithium Metal Batteries. *Joule*, **2018**, 2, 110-124	27.8	194
181	Reversible planar gliding and microcracking in a single-crystalline Ni-rich cathode. *Science*, **2020**, 370, 1313-1317	33.3	185
180	Investigation of the rechargeability of Li–O2 batteries in non-aqueous electrolyte. *Journal of Power Sources*, **2011**, 196, 5674-5678	8.9	185
179	Enabling room temperature sodium metal batteries. *Nano Energy*, **2016**, 30, 825-830	17.1	182

178	The stability of organic solvents and carbon electrode in nonaqueous Li-O2 batteries. *Journal of Power Sources*, **2012**, 215, 240-247	8.9	181
177	Injection of oxygen vacancies in the bulk lattice of layered cathodes. *Nature Nanotechnology*, **2019**, 14, 602-608	28.7	180
176	Effects of Electrolyte Salts on the Performance of LiO2 Batteries. *Journal of Physical Chemistry C*, **2013**, 117, 2635-2645	3.8	179
175	Highly Stable Operation of Lithium Metal Batteries Enabled by the Formation of a Transient High-Concentration Electrolyte Layer. *Advanced Energy Materials*, **2016**, 6, 1502151	21.8	165
174	A Localized High-Concentration Electrolyte with Optimized Solvents and Lithium Difluoro(oxalate)borate Additive for Stable Lithium Metal Batteries. *ACS Energy Letters*, **2018**, 3, 2059-2067	20.1	164
173	High-Concentration Ether Electrolytes for Stable High-Voltage Lithium Metal Batteries. *ACS Energy Letters*, **2019**, 4, 896-902	20.1	160
172	Nanoscale Phase Separation, Cation Ordering, and Surface Chemistry in Pristine Li1.2Ni0.2Mn0.6O2 for Li-Ion Batteries. *Chemistry of Materials*, **2013**, 25, 2319-2326	9.6	157
171	Enhanced charging capability of lithium metal batteries based on lithium bis(trifluoromethanesulfonyl)imide-lithium bis(oxalato)borate dual-salt electrolytes. *Journal of Power Sources*, **2016**, 318, 170-177	8.9	156
170	Conductive rigid skeleton supported silicon as high-performance Li-ion battery anodes. *Nano Letters*, **2012**, 12, 4124-30	11.5	146
169	Lithium Metal Anodes with Nonaqueous Electrolytes. *Chemical Reviews*, **2020**, 120, 13312-13348	68.1	143
168	Hierarchical porous silicon structures with extraordinary mechanical strength as high-performance lithium-ion battery anodes. *Nature Communications*, **2020**, 11, 1474	17.4	142
167	Origin of lithium whisker formation and growth under stress. *Nature Nanotechnology*, **2019**, 14, 1042-1047	28.7	141
166	Effects of Nonaqueous Electrolytes on the Performance of Lithium/Air Batteries. *Journal of the Electrochemical Society*, **2010**, 157, A219	3.9	139
165	Enhanced Li+ ion transport in LiNi0.5Mn1.5O4 through control of site disorder. *Physical Chemistry Chemical Physics*, **2012**, 14, 13515-21	3.6	137
164	How to Obtain Reproducible Results for Lithium Sulfur Batteries?. *Journal of the Electrochemical Society*, **2013**, 160, A2288-A2292	3.9	136
163	A novel approach to synthesize micrometer-sized porous silicon as a high performance anode for lithium-ion batteries. *Nano Energy*, **2018**, 50, 589-597	17.1	133
162	Coupling of electrochemically triggered thermal and mechanical effects to aggravate failure in a layered cathode. *Nature Communications*, **2018**, 9, 2437	17.4	131
161	Revealing the reaction mechanisms of Li-O batteries using environmental transmission electron microscopy. *Nature Nanotechnology*, **2017**, 12, 535-539	28.7	128

160	Li-ion batteries from LiFePO4 cathode and anatase/graphene composite anode for stationary energy storage. *Electrochemistry Communications*, **2010**, 12, 378-381	5.1	125
159	Effect of calcination temperature on the electrochemical properties of nickel-rich LiNi0.76Mn0.14Co0.10O2 cathodes for lithium-ion batteries. *Nano Energy*, **2018**, 49, 538-548	17.1	120
158	Guided Lithium Metal Deposition and Improved Lithium Coulombic Efficiency through Synergistic Effects of LiAsF6 and Cyclic Carbonate Additives. *ACS Energy Letters*, **2018**, 3, 14-19	20.1	120
157	Probing the degradation mechanisms in electrolyte solutions for Li-ion batteries by in situ transmission electron microscopy. *Nano Letters*, **2014**, 14, 1293-9	11.5	119
156	Long term stability of Li-S batteries using high concentration lithium nitrate electrolytes. *Nano Energy*, **2017**, 40, 607-617	17.1	114
155	Addressing Passivation in Lithium□Sulfur Battery Under Lean Electrolyte Condition. *Advanced Functional Materials*, **2018**, 28, 1707234	15.6	111
154	Atomic Resolution Structural and Chemical Imaging Revealing the Sequential Migration of Ni, Co, and Mn upon the Battery Cycling of Layered Cathode. *Nano Letters*, **2017**, 17, 3946-3951	11.5	110
153	Enhanced performance of graphite anode materials by AlF3 coating for lithium-ion batteries. *Journal of Materials Chemistry*, **2012**, 22, 12745		108
152	Probing the Degradation Mechanism of Li2MnO3 Cathode for Li-Ion Batteries. *Chemistry of Materials*, **2015**, 27, 975-982	9.6	107
151	Factors affecting the battery performance of anthraquinone-based organic cathode materials. *Journal of Materials Chemistry*, **2012**, 22, 4032		107
150	Atomic to Nanoscale Investigation of Functionalities of an Al2O3 Coating Layer on a Cathode for Enhanced Battery Performance. *Chemistry of Materials*, **2016**, 28, 857-863	9.6	105
149	Suppressing Lithium Dendrite Growth by Metallic Coating on a Separator. *Advanced Functional Materials*, **2017**, 27, 1704391	15.6	104
148	Design of porous Si/C□graphite electrodes with long cycle stability and controlled swelling. *Energy and Environmental Science*, **2017**, 10, 1427-1434	35.4	103
147	Improving Lithium-Sulfur Battery Performance under Lean Electrolyte through Nanoscale Confinement in Soft Swellable Gels. *Nano Letters*, **2017**, 17, 3061-3067	11.5	99
146	Surface-coating regulated lithiation kinetics and degradation in silicon nanowires for lithium ion battery. *ACS Nano*, **2015**, 9, 5559-66	16.7	99
145	Dendrite-Free and Performance-Enhanced Lithium Metal Batteries through Optimizing Solvent Compositions and Adding Combinational Additives. *Advanced Energy Materials*, **2018**, 8, 1703022	21.8	95
144	Li-Desolvation Dictating Lithium-Ion Battery's Low-Temperature Performances. *ACS Applied Materials & Interfaces*, **2017**, 9, 42761-42768	9.5	95
143	Surface Coating Constraint Induced Self-Discharging of Silicon Nanoparticles as Anodes for Lithium Ion Batteries. *Nano Letters*, **2015**, 15, 7016-22	11.5	94

142	Template free synthesis of LiV3O8 nanorods as a cathode material for high-rate secondary lithium batteries. *Journal of Materials Chemistry*, **2011**, 21, 1153-1161		94
141	High-Performance Silicon Anodes Enabled By Nonflammable Localized High-Concentration Electrolytes. *Advanced Energy Materials*, **2019**, 9, 1900784	21.8	92
140	Enhanced Cycling Stability of Rechargeable Li□2 Batteries Using High-Concentration Electrolytes. *Advanced Functional Materials*, **2016**, 26, 605-613	15.6	91
139	Mechanism of Formation of Li7P3S11 Solid Electrolytes through Liquid Phase Synthesis. *Chemistry of Materials*, **2018**, 30, 990-997	9.6	90
138	Recent Progress in Understanding Solid Electrolyte Interphase on Lithium Metal Anodes. *Advanced Energy Materials*, **2021**, 11, 2003092	21.8	90
137	Revisit Carbon/Sulfur Composite for Li-S Batteries. *Journal of the Electrochemical Society*, **2013**, 160, A1624-A1628	3.9	89
136	Effect of the Anion Activity on the Stability of Li Metal Anodes in Lithium-Sulfur Batteries. *Advanced Functional Materials*, **2016**, 26, 3059-3066	15.6	89
135	Atomic-Resolution Visualization of Distinctive Chemical Mixing Behavior of Ni, Co, and Mn with Li in Layered Lithium Transition-Metal Oxide Cathode Materials. *Chemistry of Materials*, **2015**, 27, 5393-5401	9.6	87
134	Wide-Temperature Electrolytes for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 18826-18835	9.5	86
133	Glassy Li metal anode for high-performance rechargeable Li batteries. *Nature Materials*, **2020**, 19, 1339-1345	27	86
132	Direct Observation of the Growth of Lithium Dendrites on Graphite Anodes by Operando EC-AFM. *Small Methods*, **2018**, 2, 1700298	12.8	83
131	Controlled Nucleation and Growth Process of Li2S2/Li2S in Lithium-Sulfur Batteries. *Journal of the Electrochemical Society*, **2013**, 160, A1992-A1996	3.9	82
130	Tuning the Anode-Electrolyte Interface Chemistry for Garnet-Based Solid-State Li Metal Batteries. *Advanced Materials*, **2020**, 32, e2000030	24	81
129	Bending-induced symmetry breaking of lithiation in germanium nanowires. *Nano Letters*, **2014**, 14, 4622-7	11.5	81
128	Balancing interfacial reactions to achieve long cycle life in high-energy lithium metal batteries. *Nature Energy*, **2021**, 6, 723-732	62.3	81
127	Advanced Electrolytes for Fast-Charging High-Voltage Lithium-Ion Batteries in Wide-Temperature Range. *Advanced Energy Materials*, **2020**, 10, 2000368	21.8	81
126	Electrochemical Kinetics and Performance of Layered Composite Cathode Material Li[Li0.2Ni0.2Mn0.6]O2. *Journal of the Electrochemical Society*, **2013**, 160, A2212-A2219	3.9	80
125	Complete Decomposition of LiCO in Li-O Batteries Using Ir/BC as Noncarbon-Based Oxygen Electrode. *Nano Letters*, **2017**, 17, 1417-1424	11.5	79

124	Stabilization of Li Metal Anode in DMSO-Based Electrolytes via Optimization of Salt□Solvent Coordination for Li□O2 Batteries. *Advanced Energy Materials*, **2017**, 7, 1602605	21.8	78
123	Ultrathin Li4Ti5O12 Nanosheets as Anode Materials for Lithium and Sodium Storage. *ACS Applied Materials & Interfaces*, **2016**, 8, 16718-26	9.5	77
122	Role of inner solvation sheath within salt-solvent complexes in tailoring electrode/electrolyte interphases for lithium metal batteries. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 28603-28613	11.5	76
121	Effects of Imide-Orthoborate Dual-Salt Mixtures in Organic Carbonate Electrolytes on the Stability of Lithium Metal Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 2469-2479	9.5	75
120	Ni and Co Segregations on Selective Surface Facets and Rational Design of Layered Lithium Transition-Metal Oxide Cathodes. *Advanced Energy Materials*, **2016**, 6, 1502455	21.8	72
119	Review□localized High-Concentration Electrolytes for Lithium Batteries. *Journal of the Electrochemical Society*, **2021**, 168, 010522	3.9	70
118	Revealing Cycling Rate-Dependent Structure Evolution in Ni-Rich Layered Cathode Materials. *ACS Energy Letters*, **2018**, 3, 2433-2440	20.1	69
117	Progress and perspectives on pre-lithiation technologies for lithium ion capacitors. *Energy and Environmental Science*, **2020**, 13, 2341-2362	35.4	66
116	Formation of Reversible Solid Electrolyte Interface on Graphite Surface from Concentrated Electrolytes. *Nano Letters*, **2017**, 17, 1602-1609	11.5	64
115	Pursuing two-dimensional nanomaterials for flexible lithium-ion batteries. *Nano Today*, **2016**, 11, 82-97	17.9	64
114	Enhanced Stability of Li Metal Anodes by Synergetic Control of Nucleation and the Solid Electrolyte Interphase. *Advanced Energy Materials*, **2019**, 9, 1901764	21.8	63
113	Simultaneous Stabilization of LiNi Mn Co O Cathode and Lithium Metal Anode by Lithium Bis(oxalato)borate as Additive. *ChemSusChem*, **2018**, 11, 2211-2220	8.3	62
112	Lithium Metal Anodes and Rechargeable Lithium Metal Batteries. *Springer Series in Materials Science*, **2017**,	0.9	62
111	Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. *ACS Energy Letters*, **2019**, 4, 2529-2534	20.1	61
110	High-Power Lithium Metal Batteries Enabled by High-Concentration Acetonitrile-Based Electrolytes with Vinylene Carbonate Additive. *Advanced Functional Materials*, **2020**, 30, 2001285	15.6	60
109	A stable nanoporous silicon anode prepared by modified magnesiothermic reactions. *Nano Energy*, **2016**, 20, 68-75	17.1	58
108	Hierarchically Porous Graphitic Carbon with Simultaneously High Surface Area and Colossal Pore Volume Engineered via Ice Templating. *ACS Nano*, **2017**, 11, 11047-11055	16.7	57
107	Hard carbon coated nano-Si/graphite composite as a high performance anode for Li-ion batteries. *Journal of Power Sources*, **2016**, 329, 323-329	8.9	57

106	Mixed salts of LiTFSI and LiBOB for stable LiFePO4-based batteries at elevated temperatures. *Journal of Materials Chemistry A*, **2014**, 2, 2346	13	57
105	The mechanisms of oxygen reduction and evolution reactions in nonaqueous lithium-oxygen batteries. *ChemSusChem*, **2014**, 7, 2436-40	8.3	57
104	Tunable electrochemical properties of fluorinated graphene. *Journal of Materials Chemistry A*, **2013**, 1, 7866	13	57
103	Reinvestigation on the state-of-the-art nonaqueous carbonate electrolytes for 5 V Li-ion battery applications. *Journal of Power Sources*, **2012**, 213, 304-316	8.9	56
102	B4C as a stable non-carbon-based oxygen electrode material for lithium-oxygen batteries. *Nano Energy*, **2017**, 33, 195-204	17.1	55
101	Electrochemically Formed Ultrafine Metal Oxide Nanocatalysts for High-Performance Lithium-Oxygen Batteries. *Nano Letters*, **2016**, 16, 4932-9	11.5	55
100	Dendrimer-Encapsulated Ruthenium Oxide Nanoparticles as Catalysts in Lithium-Oxygen Batteries. *Advanced Functional Materials*, **2014**, 24, 7510-7519	15.6	54
99	Atomic to Nanoscale Origin of Vinylene Carbonate Enhanced Cycling Stability of Lithium Metal Anode Revealed by Cryo-Transmission Electron Microscopy. *Nano Letters*, **2020**, 20, 418-425	11.5	54
98	The roles of oxygen non-stoichiometry on the electrochemical properties of oxide-based cathode materials. *Nano Today*, **2016**, 11, 678-694	17.9	54
97	The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. *Scientific Reports*, **2016**, 6, 34267	4.9	53
96	Tunable Oxygen Functional Groups as Electrocatalysts on Graphite Felt Surfaces for All-Vanadium Flow Batteries. *ChemSusChem*, **2016**, 9, 1455-61	8.3	52
95	Hierarchically Porous Carbon Materials for CO2 Capture: The Role of Pore Structure. *Industrial & Engineering Chemistry Research*, **2018**, 57, 1262-1268	3.9	51
94	Detrimental Effects of Chemical Crossover from the Lithium Anode to Cathode in Rechargeable Lithium Metal Batteries. *ACS Energy Letters*, **2018**, 3, 2921-2930	20.1	51
93	Effects of structural defects on the electrochemical activation of Li2MnO3. *Nano Energy*, **2015**, 16, 143-151	17.1	50
92	Solid–Liquid Interfacial Reaction Trigged Propagation of Phase Transition from Surface into Bulk Lattice of Ni-Rich Layered Cathode. *Chemistry of Materials*, **2018**, 30, 7016-7026	9.6	50
91	Enabling High-Energy-Density Cathode for Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 23094-23102	9.5	48
90	High performance Li-ion sulfur batteries enabled by intercalation chemistry. *Chemical Communications*, **2015**, 51, 13454-7	5.8	45
89	Formation of interfacial layer and long-term cyclability of Li-O2 batteries. *ACS Applied Materials & Interfaces*, **2014**, 6, 14141-51	9.5	43

88	Localized high concentration electrolyte behavior near a lithium metal anode surface. *Journal of Materials Chemistry A*, **2019**, 7, 25047-25055	13	43
87	Designing Advanced In Situ Electrode/Electrolyte Interphases for Wide Temperature Operation of 4.5 V Li||LiCoO Batteries. *Advanced Materials*, **2020**, 32, e2004898	24	42
86	Tailored Reaction Route by Micropore Confinement for Li S Batteries Operating under Lean Electrolyte Conditions. *Advanced Energy Materials*, **2018**, 8, 1800590	21.8	42
85	Localized High Concentration Electrolytes for High Voltage Lithium Metal Batteries: Correlation between the Electrolyte Composition and Its Reductive/Oxidative Stability. *Chemistry of Materials*, **2020**, 32, 5973-5984	9.6	41
84	Enhanced Stability of Lithium Metal Anode by using a 3D Porous Nickel Substrate. *ChemElectroChem*, **2018**, 5, 761-769	4.3	41
83	Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. *ACS Energy Letters*, **2020**, 5, 3212-3220	20.1	40
82	Polymer-in- Quasi-Ionic Liquid Electrolytes for High-Voltage Lithium Metal Batteries. *Advanced Energy Materials*, **2019**, 9, 1902108	21.8	39
81	In-situ electrochemical transmission electron microscopy for battery research. *Microscopy and Microanalysis*, **2014**, 20, 484-92	0.5	39
80	Effects of fluorinated solvents on electrolyte solvation structures and electrode/electrolyte interphases for lithium metal batteries. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	39
79	Progressive growth of the solid-electrolyte interphase towards the Si anode interior causes capacity fading. *Nature Nanotechnology*, **2021**, 16, 1113-1120	28.7	39
78	Natural abundance 17O, 6Li NMR and molecular modeling studies of the solvation structures of lithium bis(fluorosulfonyl)imide/1,2-dimethoxyethane liquid electrolytes. *Journal of Power Sources*, **2016**, 307, 231-243	8.9	37
77	Effects of cell positive cans and separators on the performance of high-voltage Li-ion batteries. *Journal of Power Sources*, **2012**, 213, 160-168	8.9	37
76	Multinuclear NMR Study of the Solid Electrolyte Interface Formed in Lithium Metal Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 14741-14748	9.5	36
75	Lithium Self-Discharge and Its Prevention: Direct Visualization through In Situ Electrochemical Scanning Transmission Electron Microscopy. *ACS Nano*, **2017**, 11, 11194-11205	16.7	36
74	A review on the stability and surface modification of layered transition-metal oxide cathodes. *Materials Today*, **2021**, 46, 155-182	21.8	35
73	Phosphorus Enrichment as a New Composition in the Solid Electrolyte Interphase of High-Voltage Cathodes and Its Effects on Battery Cycling. *Chemistry of Materials*, **2015**, 27, 7447-7451	9.6	34
72	Improving Lithium Metal Composite Anodes with Seeding and Pillaring Effects of Silicon Nanoparticles. *ACS Nano*, **2020**, 14, 4601-4608	16.7	34
71	Enhanced Cyclability of Lithium Oxygen Batteries with Electrodes Protected by Surface Films Induced via In Situ Electrochemical Process. *Advanced Energy Materials*, **2018**, 8, 1702340	21.8	33

70	An Approach to Make Macroporous Metal Sheets as Current Collectors for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2010**, 157, A765	3.9	32
69	Lattice Mn3+Behaviors in Li4Ti5O12/LiNi0.5Mn1.5O4Full Cells. *Journal of the Electrochemical Society*, **2013**, 160, A1264-A1268	3.9	31
68	In Situ-Grown ZnCo2O4 on Single-Walled Carbon Nanotubes as Air Electrode Materials for Rechargeable Lithium-Oxygen Batteries. *ChemSusChem*, **2015**, 8, 3697-703	8.3	31
67	Lifecycle comparison of selected Li-ion battery chemistries under grid and electric vehicle duty cycle combinations. *Journal of Power Sources*, **2018**, 380, 185-193	8.9	30
66	Effects of Propylene Carbonate Content in CsPF□Containing Electrolytes on the Enhanced Performances of Graphite Electrode for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2016**, 8, 5715-22	9.5	29
65	Robust Solid/Electrolyte Interphase (SEI) Formation on Si Anodes Using Glyme-Based Electrolytes. *ACS Energy Letters*, **2021**, 6, 1684-1693	20.1	29
64	Effects of Anion Mobility on Electrochemical Behaviors of Lithium□Sulfur Batteries. *Chemistry of Materials*, **2017**, 29, 9023-9029	9.6	28
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