Ji-Guang Zhang

List of Publications by Year
in descending order

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232 papers	49,902 citations	1371 108 h-index	1568 217 g-index
238 all docs	238 docs citations	238 times ranked	22150 citing authors

#	Article	IF	Citations
1	Lithium metal anodes for rechargeable batteries. Energy and Environmental Science, 2014, 7, 513-537.	30.8	3,665
2	Pathways for practical high-energy long-cycling lithium metal batteries. Nature Energy, 2019, 4, 180-186.	39.5	2,101
3	High rate and stable cycling of lithium metal anode. Nature Communications, 2015, 6, 6362.	12.8	1,954
4	Dendrite-Free Lithium Deposition via Self-Healing Electrostatic Shield Mechanism. Journal of the American Chemical Society, 2013, 135, 4450-4456.	13.7	1,736
5	A Review of Solid Electrolyte Interphases on Lithium Metal Anode. Advanced Science, 2016, 3, 1500213.	11.2	1,306
6	Mesoporous silicon sponge as an anti-pulverization structure for high-performance lithium-ion battery anodes. Nature Communications, 2014, 5, 4105.	12.8	1,160
7	Advancing Lithium Metal Batteries. Joule, 2018, 2, 833-845.	24.0	1,052
8	Electrolyte additive enabled fast charging and stable cycling lithium metal batteries. Nature Energy, 2017, 2, .	39.5	1,048
9	Hierarchically Porous Graphene as a Lithiumâ€“Air Battery Electrode. Nano Letters, 2011, 11, 5071-5078.	9.1	943
10	Formation of the Spinel Phase in the Layered Composite Cathode Used in Li-Ion Batteries. ACS Nano, 2013, 7, 760-767.	14.6	772
11	Stable cycling of high-voltage lithium metal batteries in ether electrolytes. Nature Energy, 2018, 3, 739-746.	39.5	767
12	Highâ€Voltage Lithiumâ€Metal Batteries Enabled by Localized Highâ€Concentration Electrolytes. Advanced Materials, 2018, 30, e1706102.	21.0	761
13	Accurate Determination of Coulombic Efficiency for Lithium Metal Anodes and Lithium Metal Batteries. Advanced Energy Materials, 2018, 8, 1702097.	19.5	704
14	Dendrites and Pits: Untangling the Complex Behavior of Lithium Metal Anodes through Operando Video Microscopy. ACS Central Science, 2016, 2, 790-801.	11.3	662
15	Intragranular cracking as a critical barrier for high-voltage usage of layer-structured cathode for lithium-ion batteries. Nature Communications, 2017, 8, 14101.	12.8	654
16	Localized High-Concentration Sulfone Electrolytes for High-Efficiency Lithium-Metal Batteries. CheM, 2018, 4, 1877-1892.	11.7	628
17	Lewis Acidâ€“Base Interactions between Polysulfides and Metal Organic Framework in Lithium Sulfur Batteries. Nano Letters, 2014, 14, 2345-2352.	9.1	623
18	Monolithic solidâ€“electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. Nature Energy, 2019, 4, 796-805.	39.5	621

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19	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.	39.5	613
20	Enabling High-Voltage Lithium-Metal Batteries under Practical Conditions. Joule, 2019, 3, 1662-1676.	24.0	598
21	Non-flammable electrolytes with high salt-to-solvent ratios for Li-ion and Li-metal batteries. Nature Energy, 2018, 3, 674-681.	39.5	557
22	Understanding and applying coulombic efficiency in lithium metal batteries. Nature Energy, 2020, 5, 561-568.	39.5	526
23	Anodeâ€Free Rechargeable Lithium Metal Batteries. Advanced Functional Materials, 2016, 26, 7094-7102.	14.9	495
24	High-energy lithium metal pouch cells with limited anode swelling and long stable cycles. Nature Energy, 2019, 4, 551-559.	39.5	492
25	High Energy Density Lithiumâ€“Sulfur Batteries: Challenges of Thick Sulfur Cathodes. Advanced Energy Materials, 2015, 5, 1402290.	19.5	483
26	Making Liâ€Air Batteries Rechargeable: Material Challenges. Advanced Functional Materials, 2013, 23, 987-1004.	14.9	477
27	Reversible planar gliding and microcracking in a single-crystalline Ni-rich cathode. Science, 2020, 370, 1313-1317.	12.6	472
28	Self-smoothing anode for achieving high-energy lithium metal batteries under realistic conditions. Nature Nanotechnology, 2019, 14, 594-601.	31.5	451
29	High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. Joule, 2018, 2, 1548-1558.	24.0	436
30	Highâ€Performance LiNi_{0.5}Mn_{1.5}O₄ Spinel Controlled by Mn³⁺ Concentration and Site Disorder. Advanced Materials, 2012, 24, 2109-2116.	21.0	434
31	Anodes for Rechargeable Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2015, 5, 1402273.	19.5	423
32	Lithium Metal Anodes with Nonaqueous Electrolytes. Chemical Reviews, 2020, 120, 13312-13348.	47.7	393
33	Liâ€rand Mnâ€Rich Cathode Materials: Challenges to Commercialization. Advanced Energy Materials, 2017, 7, 1601284.	19.5	383
34	Extremely Stable Sodium Metal Batteries Enabled by Localized High-Concentration Electrolytes. ACS Energy Letters, 2018, 3, 315-321.	17.4	373
35	Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. Joule, 2019, 3, 1094-1105.	24.0	358
36	Corrosion/Fragmentation of Layered Composite Cathode and Related Capacity/Voltage Fading during Cycling Process. Nano Letters, 2013, 13, 3824-3830.	9.1	353

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37	Functioning Mechanism of AlF₃ Coating on the Li- and Mn-Rich Cathode Materials. Chemistry of Materials, 2014, 26, 6320-6327.	6.7	333
38	Dendrite-Free Lithium Deposition with Self-Aligned Nanorod Structure. Nano Letters, 2014, 14, 6889-6896.	9.1	326
39	Non-encapsulation approach for high-performance Liâ€“S batteries through controlled nucleation and growth. Nature Energy, 2017, 2, 813-820.	39.5	326
40	In Situ TEM Study of Lithiation Behavior of Silicon Nanoparticles Attached to and Embedded in a Carbon Matrix. ACS Nano, 2012, 6, 8439-8447.	14.6	321
41	Injection of oxygen vacancies in the bulk lattice of layered cathodes. Nature Nanotechnology, 2019, 14, 602-608.	31.5	321
42	Structural and Chemical Evolution of Li- and Mn-Rich Layered Cathode Material. Chemistry of Materials, 2015, 27, 1381-1390.	6.7	311
43	New Insights on the Structure of Electrochemically Deposited Lithium Metal and Its Solid Electrolyte Interphases via Cryogenic TEM. Nano Letters, 2017, 17, 7606-7612.	9.1	308
44	High-Concentration Ether Electrolytes for Stable High-Voltage Lithium Metal Batteries. ACS Energy Letters, 2019, 4, 896-902.	17.4	302
45	High Voltage Operation of Niâ€Rich NMC Cathodes Enabled by Stable Electrode/Electrolyte Interphases. Advanced Energy Materials, 2018, 8, 1800297.	19.5	298
46	Hierarchical porous silicon structures with extraordinary mechanical strength as high-performance lithium-ion battery anodes. Nature Communications, 2020, 11, 1474.	12.8	298
47	Dendrite-free Li deposition using trace-amounts of water as an electrolyte additive. Nano Energy, 2015, 15, 135-144.	16.0	297
48	Balancing interfacial reactions to achieve long cycle life in high-energy lithium metal batteries. Nature Energy, 2021, 6, 723-732.	39.5	285
49	Hollow coreâ€“shell structured porous Siâ€“C nanocomposites for Li-ion battery anodes. Journal of Materials Chemistry, 2012, 22, 11014.	6.7	280
50	Behavior of Lithium Metal Anodes under Various Capacity Utilization and High Current Density in Lithium Metal Batteries. Joule, 2018, 2, 110-124.	24.0	280
51	Mitigating Voltage Fade in Cathode Materials by Improving the Atomic Level Uniformity of Elemental Distribution. Nano Letters, 2014, 14, 2628-2635.	9.1	273
52	Recent Progress in Understanding Solid Electrolyte Interphase on Lithium Metal Anodes. Advanced Energy Materials, 2021, 11, 2003092.	19.5	271
53	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, 6106-6112.	9.1	265
54	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, 514-522.	9.1	261

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55	Effects of Carbonate Solvents and Lithium Salts on Morphology and Coulombic Efficiency of Lithium Electrode. Journal of the Electrochemical Society, 2013, 160, A1894-A1901.	2.9	260
56	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.	17.4	257
57	Reviewâ€"Localized High-Concentration Electrolytes for Lithium Batteries. Journal of the Electrochemical Society, 2021, 168, 010522.	2.9	257
58	Enabling room temperature sodium metal batteries. Nano Energy, 2016, 30, 825-830.	16.0	248
59	Highly Stable Operation of Lithium Metal Batteries Enabled by the Formation of a Transient Highâ€Concentration Electrolyte Layer. Advanced Energy Materials, 2016, 6, 1502151.	19.5	236
60	Conflicting Roles of Nickel in Controlling Cathode Performance in Lithium Ion Batteries. Nano Letters, 2012, 12, 5186-5191.	9.1	231
61	Ionic liquid-enhanced solid state electrolyte interface (SEI) for lithiumâ€"sulfur batteries. Journal of Materials Chemistry A, 2013, 1, 8464.	10.3	229
62	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.	16.0	213
63	Origin of lithium whisker formation and growth under stress. Nature Nanotechnology, 2019, 14, 1042-1047.	31.5	211
64	Effects of Electrolyte Salts on the Performance of Liâ€"O₂ Batteries. Journal of Physical Chemistry C, 2013, 117, 2635-2645.	3.1	204
65	Li⁺-Desolvation Dictating Lithium-Ion Batteryâ€™s Low-Temperature Performances. ACS Applied Materials & Interfaces, 2017, 9, 42761-42768.	8.0	200
66	Coupling of electrochemically triggered thermal and mechanical effects to aggravate failure in a layered cathode. Nature Communications, 2018, 9, 2437.	12.8	200
67	Investigation of the rechargeability of Liâ€"O2 batteries in non-aqueous electrolyte. Journal of Power Sources, 2011, 196, 5674-5678.	7.8	197
68	The stability of organic solvents and carbon electrode in nonaqueous Li-O2 batteries. Journal of Power Sources, 2012, 215, 240-247.	7.8	197
69	A novel approach to synthesize micrometer-sized porous silicon as a high performance anode for lithium-ion batteries. Nano Energy, 2018, 50, 589-597.	16.0	191
70	Role of inner solvation sheath within saltâ€"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.	7.1	191
71	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.	7.8	186
72	Highâ€Performance Silicon Anodes Enabled By Nonflammable Localized Highâ€Concentration Electrolytes. Advanced Energy Materials, 2019, 9, 1900784.	19.5	175

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73	Nanoscale Phase Separation, Cation Ordering, and Surface Chemistry in Pristine Li_{1.2}Ni_{0.2}Mn_{0.6}O₂for Li-Ion Batteries. Chemistry of Materials, 2013, 25, 2319-2326.	6.7	173
74	Enhanced Li+ ion transport in LiNi0.5Mn1.5O4 through control of site disorder. Physical Chemistry Chemical Physics, 2012, 14, 13515.	2.8	167
75	Glassy Li metal anode for high-performance rechargeable Li batteries. Nature Materials, 2020, 19, 1339-1345.	27.5	162
76	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.	17.4	161
77	Conductive Rigid Skeleton Supported Silicon as High-Performance Li-Ion Battery Anodes. Nano Letters, 2012, 12, 4124-4130.	9.1	160
78	Revealing the reaction mechanisms of Liâ€“O2 batteries using environmental transmission electron microscopy. Nature Nanotechnology, 2017, 12, 535-539.	31.5	160
79	Long term stability of Li-S batteries using high concentration lithium nitrate electrolytes. Nano Energy, 2017, 40, 607-617.	16.0	160
80	Advanced Electrolytes for Fastâ€Charging Highâ€Voltage Lithiumâ€Ion Batteries in Wideâ€Temperature Range. Advanced Energy Materials, 2020, 10, 2000368.	19.5	159
81	Tuning the Anodeâ€“Electrolyte Interface Chemistry for Garnetâ€Based Solidâ€State Li Metal Batteries. Advanced Materials, 2020, 32, e2000030.	21.0	156
82	Wide-Temperature Electrolytes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 18826-18835.	8.0	150
83	How to Obtain Reproducible Results for Lithium Sulfur Batteries?. Journal of the Electrochemical Society, 2013, 160, A2288-A2292.	2.9	149
84	Effects of Nonaqueous Electrolytes on the Performance of Lithium/Air Batteries. Journal of the Electrochemical Society, 2010, 157, A219.	2.9	148
85	Progressive growth of the solidâ€“electrolyte interphase towards the Si anode interior causes capacity fading. Nature Nanotechnology, 2021, 16, 1113-1120.	31.5	147
86	Li-ion batteries from LiFePO4 cathode and anatase/graphene composite anode for stationary energy storage. Electrochemistry Communications, 2010, 12, 378-381.	4.7	145
87	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.	9.1	143
88	Addressing Passivation in Lithiumâ€“Sulfur Battery Under Lean Electrolyte Condition. Advanced Functional Materials, 2018, 28, 1707234.	14.9	143
89	Progress and perspectives on pre-lithiation technologies for lithium ion capacitors. Energy and Environmental Science, 2020, 13, 2341-2362.	30.8	142
90	Suppressing Lithium Dendrite Growth by Metallic Coating on a Separator. Advanced Functional Materials, 2017, 27, 1704391.	14.9	141

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91	Design of porous Si/Câ€“graphite electrodes with long cycle stability and controlled swelling. Energy and Environmental Science, 2017, 10, 1427-1434.	30.8	140
92	Probing the Degradation Mechanisms in Electrolyte Solutions for Li-Ion Batteries by in Situ Transmission Electron Microscopy. Nano Letters, 2014, 14, 1293-1299.	9.1	137
93	Low-solvation electrolytes for high-voltage sodium-ion batteries. Nature Energy, 2022, 7, 718-725.	39.5	137
94	Direct Observation of the Growth of Lithium Dendrites on Graphite Anodes by Operando ECâ€AFM. Small Methods, 2018, 2, 1700298.	8.6	133
95	A review on the stability and surface modification of layered transition-metal oxide cathodes. Materials Today, 2021, 46, 155-182.	14.2	132
96	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, .	7.1	131
97	Probing the Degradation Mechanism of Li₂MnO₃ Cathode for Li-Ion Batteries. Chemistry of Materials, 2015, 27, 975-982.	6.7	130
98	Enhanced performance of graphite anode materials by AlF3 coating for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 12745.	6.7	129
99	Factors affecting the battery performance of anthraquinone-based organic cathode materials. Journal of Materials Chemistry, 2012, 22, 4032.	6.7	126
100	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.	6.7	125
101	Dendriteâ€Free and Performanceâ€Enhanced Lithium Metal Batteries through Optimizing Solvent Compositions and Adding Combinational Additives. Advanced Energy Materials, 2018, 8, 1703022.	19.5	123
102	Designing Advanced In Situ Electrode/Electrolyte Interphases for Wide Temperature Operation of 4.5 V Li||LiCoO₂ Batteries. Advanced Materials, 2020, 32, e2004898.	21.0	123
103	Improving Lithiumâ€“Sulfur Battery Performance under Lean Electrolyte through Nanoscale Confinement in Soft Swellable Gels. Nano Letters, 2017, 17, 3061-3067.	9.1	122
104	Highâ€Power Lithium Metal Batteries Enabled by Highâ€Concentration Acetonitrileâ€Based Electrolytes with Vinylene Carbonate Additive. Advanced Functional Materials, 2020, 30, 2001285.	14.9	121
105	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. ACS Nano, 2015, 9, 5559-5566.	14.6	118
106	Mechanism of Formation of Li₇P₃S₁₁ Solid Electrolytes through Liquid Phase Synthesis. Chemistry of Materials, 2018, 30, 990-997.	6.7	118
107	Effect of the Anion Activity on the Stability of Li Metal Anodes in Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2016, 26, 3059-3066.	14.9	117
108	Surface Coating Constraint Induced Self-Discharging of Silicon Nanoparticles as Anodes for Lithium Ion Batteries. Nano Letters, 2015, 15, 7016-7022.	9.1	113

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109	Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. ACS Energy Letters, 2019, 4, 2529-2534.	17.4	112
110	Effects of Imideâ€“Orthoborate Dual-Salt Mixtures in Organic Carbonate Electrolytes on the Stability of Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2018, 10, 2469-2479.	8.0	110
111	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.	6.7	108
112	Enhanced Stability of Li Metal Anodes by Synergetic Control of Nucleation and the Solid Electrolyte Interphase. Advanced Energy Materials, 2019, 9, 1901764.	19.5	108
113	Template free synthesis of LiV₃O₈nanorods as a cathode material for high-rate secondary lithium batteries. Journal of Materials Chemistry, 2011, 21, 1153-1161.	6.7	105
114	Electrochemical Kinetics and Performance of Layered Composite Cathode Material Li[Li_{0.2}Ni_{0.2}Mn_{0.6}]O₂. Journal of the Electrochemical Society, 2013, 160, A2212-A2219.	2.9	104
115	Enhanced Cycling Stability of Rechargeable Liâ€“O₂ Batteries Using Highâ€Concentration Electrolytes. Advanced Functional Materials, 2016, 26, 605-613.	14.9	104
116	Complete Decomposition of Li₂CO₃ in Liâ€“O₂ Batteries Using Ir/B₄C as Noncarbon-Based Oxygen Electrode. Nano Letters, 2017, 17, 1417-1424.	9.1	104
117	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.	9.1	102
118	Ni and Co Segregations on Selective Surface Facets and Rational Design of Layered Lithium Transitionâ€Metal Oxide Cathodes. Advanced Energy Materials, 2016, 6, 1502455.	19.5	100
119	Stabilization of Li Metal Anode in DMSOâ€Based Electrolytes via Optimization of Saltâ€“Solvent Coordination for Liâ€“O₂ Batteries. Advanced Energy Materials, 2017, 7, 1602605.	19.5	99
120	A Micrometerâ€Sized Silicon/Carbon Composite Anode Synthesized by Impregnation of Petroleum Pitch in Nanoporous Silicon. Advanced Materials, 2021, 33, e2103095.	21.0	99
121	Revisit Carbon/Sulfur Composite for Li-S Batteries. Journal of the Electrochemical Society, 2013, 160, A1624-A1628.	2.9	98
122	Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. ACS Energy Letters, 2020, 5, 3212-3220.	17.4	97
123	Localized High Concentration Electrolytes for High Voltage Lithiumâ€“Metal Batteries: Correlation between the Electrolyte Composition and Its Reductive/Oxidative Stability. Chemistry of Materials, 2020, 32, 5973-5984.	6.7	97
124	Bending-Induced Symmetry Breaking of Lithiation in Germanium Nanowires. Nano Letters, 2014, 14, 4622-4627.	9.1	92
125	Revealing Cycling Rate-Dependent Structure Evolution in Ni-Rich Layered Cathode Materials. ACS Energy Letters, 2018, 3, 2433-2440.	17.4	92
126	Formation of Reversible Solid Electrolyte Interface on Graphite Surface from Concentrated Electrolytes. Nano Letters, 2017, 17, 1602-1609.	9.1	91

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127	Controlled Nucleation and Growth Process of Li₂S₂/Li₂S in Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2013, 160, A1992-A1996.	2.9	89
128	Simultaneous Stabilization of LiNi_{0.76}Mn_{0.14}Co_{0.10}O₂ Cathode and Lithium Metal Anode by Lithium Bis(oxalato)borate as Additive. ChemSusChem, 2018, 11, 2211-2220.	6.8	89
129	Detrimental Effects of Chemical Crossover from the Lithium Anode to Cathode in Rechargeable Lithium Metal Batteries. ACS Energy Letters, 2018, 3, 2921-2930.	17.4	89
130	Ultrathin Li₄Ti₅O₁₂ Nanosheets as Anode Materials for Lithium and Sodium Storage. ACS Applied Materials & Interfaces, 2016, 8, 16718-16726.	8.0	87
131	Robust Solid/Electrolyte Interphase (SEI) Formation on Si Anodes Using Glyme-Based Electrolytes. ACS Energy Letters, 2021, 6, 1684-1693.	17.4	87
132	Mixed salts of LiTFSI and LiBOB for stable LiFePO4-based batteries at elevated temperatures. Journal of Materials Chemistry A, 2014, 2, 2346.	10.3	85
133	Quantitatively analyzing the failure processes of rechargeable Li metal batteries. Science Advances, 2021, 7, eabj3423.	10.3	84
134	Hierarchically Porous Carbon Materials for CO₂ Capture: The Role of Pore Structure. Industrial & Engineering Chemistry Research, 2018, 57, 1262-1268.	3.7	83
135	Localized high concentration electrolyte behavior near a lithiumâ€“metal anode surface. Journal of Materials Chemistry A, 2019, 7, 25047-25055.	10.3	81
136	Solidâ€“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.	6.7	80
137	Tunable electrochemical properties of fluorinated graphene. Journal of Materials Chemistry A, 2013, 1, 7866.	10.3	74
138	Effects of structural defects on the electrochemical activation of Li2MnO3. Nano Energy, 2015, 16, 143-151.	16.0	73
139	Hard carbon coated nano-Si/graphite composite as a high performance anode for Li-ion batteries. Journal of Power Sources, 2016, 329, 323-329.	7.8	73
140	Pursuing two-dimensional nanomaterials for flexible lithium-ion batteries. Nano Today, 2016, 11, 82-97.	11.9	73
141	The roles of oxygen non-stoichiometry on the electrochemical properties of oxide-based cathode materials. Nano Today, 2016, 11, 678-694.	11.9	72
142	Lithium Metal Anodes and Rechargeable Lithium Metal Batteries. Springer Series in Materials Science, 2017, , .	0.6	70
143	Reinvestigation on the state-of-the-art nonaqueous carbonate electrolytes for 5ÂV Li-ion battery applications. Journal of Power Sources, 2012, 213, 304-316.	7.8	69
144	Hierarchically Porous Graphitic Carbon with Simultaneously High Surface Area and Colossal Pore Volume Engineered via Ice Templating. ACS Nano, 2017, 11, 11047-11055.	14.6	69

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145	Interfacial-engineering-enabled practical low-temperature sodium metal battery. Nature Nanotechnology, 2022, 17, 269-277.	31.5	69
146	The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. Scientific Reports, 2016, 6, 34267.	3.3	67
147	Enabling High-Energy-Density Cathode for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 23094-23102.	8.0	67
148	Tunable Oxygen Functional Groups as Electrocatalysts on Graphite Felt Surfaces for Allâ€Vanadium Flow Batteries. ChemSusChem, 2016, 9, 1455-1461.	6.8	66
149	Optimized Al Doping Improves Both Interphase Stability and Bulk Structural Integrity of Ni-Rich NMC Cathode Materials. ACS Applied Energy Materials, 2020, 3, 3369-3377.	5.1	66
150	A stable nanoporous silicon anode prepared by modified magnesiothermic reactions. Nano Energy, 2016, 20, 68-75.	16.0	65
151	B4C as a stable non-carbon-based oxygen electrode material for lithium-oxygen batteries. Nano Energy, 2017, 33, 195-204.	16.0	65
152	Polymerâ€inâ€œQuasiâ€Ionic Liquidâ€•Electrolytes for Highâ€Voltage Lithium Metal Batteries. Advanced Energy Materials, 2019, 9, 1902108.	19.5	65
153	Optimization of fluorinated orthoformate based electrolytes for practical high-voltage lithium metal batteries. Energy Storage Materials, 2021, 34, 76-84.	18.0	65
154	The Mechanisms of Oxygen Reduction and Evolution Reactions in Nonaqueous Lithiumâ€“Oxygen Batteries. ChemSusChem, 2014, 7, 2436-2440.	6.8	62
155	Electrochemically Formed Ultrafine Metal Oxide Nanocatalysts for High-Performance Lithiumâ€“Oxygen Batteries. Nano Letters, 2016, 16, 4932-4939.	9.1	62
156	Improving Lithium Metal Composite Anodes with Seeding and Pillaring Effects of Silicon Nanoparticles. ACS Nano, 2020, 14, 4601-4608.	14.6	61
157	The Role of Secondary Particle Structures in Surface Phase Transitions of Ni-Rich Cathodes. Chemistry of Materials, 2020, 32, 2884-2892.	6.7	60
158	Excellent Cycling Stability of Sodium Anode Enabled by a Stable Solid Electrolyte Interphase Formed in Etherâ€Based Electrolytes. Advanced Functional Materials, 2020, 30, 2001151.	14.9	60
159	Dendrimerâ€Encapsulated Ruthenium Oxide Nanoparticles as Catalysts in Lithiumâ€Oxygen Batteries. Advanced Functional Materials, 2014, 24, 7510-7519.	14.9	59
160	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.	7.8	58
161	Enhanced Stability of Lithium Metal Anode by using a 3D Porous Nickel Substrate. ChemElectroChem, 2018, 5, 761-769.	3.4	58
162	Rational Design of Electrolytes for Long-Term Cycling of Si Anodes over a Wide Temperature Range. ACS Energy Letters, 2021, 6, 387-394.	17.4	58

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163	Anode-less. Nature Energy, 2019, 4, 637-638.	39.5	56
164	High performance Li-ion sulfur batteries enabled by intercalation chemistry. Chemical Communications, 2015, 51, 13454-13457.	4.1	55
165	Tailored Reaction Route by Micropore Confinement for Liâ€“S Batteries Operating under Lean Electrolyte Conditions. Advanced Energy Materials, 2018, 8, 1800590.	19.5	55
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