Khalil Amine

List of Publications by Year
in descending order

435 papers	56,344 citations	613 124 h-index	1456 220 g-index
456 all docs	456 docs citations	456 times ranked	28443 citing authors

#	Article	IF	Citations
1	30 Years of Lithiumâ€Ion Batteries. Advanced Materials, 2018, 30, e1800561.	11.1	3,039
2	Challenges Facing Lithium Batteries and Electrical Doubleâ€Layer Capacitors. Angewandte Chemie - International Edition, 2012, 51, 9994-10024.	7.2	2,407
3	High-energy cathode material for long-life and safe lithium batteries. Nature Materials, 2009, 8, 320-324.	13.3	1,323
4	Aprotic and Aqueous Liâ€“O₂ Batteries. Chemical Reviews, 2014, 114, 5611-5640.	23.0	975
5	Non-flammable electrolyte enables Li-metal batteries with aggressive cathode chemistries. Nature Nanotechnology, 2018, 13, 715-722.	15.6	964
6	Nanostructured high-energy cathode materials for advanced lithium batteries. Nature Materials, 2012, 11, 942-947.	13.3	921
7	Commercialization of Lithium Battery Technologies for Electric Vehicles. Advanced Energy Materials, 2019, 9, 1900161.	10.2	865
8	Formation of the Spinel Phase in the Layered Composite Cathode Used in Li-Ion Batteries. ACS Nano, 2013, 7, 760-767.	7.3	772
9	A lithiumâ€“oxygen battery based on lithium superoxide. Nature, 2016, 529, 377-382.	13.7	633
10	The Role of AlF₃ Coatings in Improving Electrochemical Cycling of Liâ€Enriched Nickelâ€Manganese Oxide Electrodes for Liâ€Ion Batteries. Advanced Materials, 2012, 24, 1192-1196.	11.1	629
11	Dissolution, migration, and deposition of transition metal ions in Li-ion batteries exemplified by Mn-based cathodes â€“ a critical review. Energy and Environmental Science, 2018, 11, 243-257.	15.6	618
12	The role of nanotechnology in the development of battery materials for electric vehicles. Nature Nanotechnology, 2016, 11, 1031-1038.	15.6	581
13	Role of surface coating on cathode materials for lithium-ion batteries. Journal of Materials Chemistry, 2010, 20, 7606.	6.7	569
14	A New Class of Lithium and Sodium Rechargeable Batteries Based on Selenium and Seleniumâ€“Sulfur as a Positive Electrode. Journal of the American Chemical Society, 2012, 134, 4505-4508.	6.6	534
15	High-Performance Anode Materials for Rechargeable Lithium-Ion Batteries. Electrochemical Energy Reviews, 2018, 1, 35-53.	13.1	514
16	Understanding the Rate Capability of Highâ€Energyâ€Density Liâ€Rich Layered Li_{1.2}Ni_{0.15}Co_{0.1}Mn_{0.55}O₂ Cathode Materials. Advanced Energy Materials, 2014, 4, 1300950.	10.2	480
17	Fluorinated electrolytes for 5 V lithium-ion battery chemistry. Energy and Environmental Science, 2013, 6, 1806.	15.6	462
18	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. Chemical Society Reviews, 2020, 49, 8790-8839.	18.7	461

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19	Electrolyte design strategies and research progress for room-temperature sodium-ion batteries. Energy and Environmental Science, 2017, 10, 1075-1101.	15.6	459
20	Titaniumâ€Based Anode Materials for Safe Lithiumâ€Ion Batteries. Advanced Functional Materials, 2013, 23, 959-969.	7.8	456
21	Thermal Runaway of Lithium-Ion Batteries without Internal Short Circuit. Joule, 2018, 2, 2047-2064.	11.7	442
22	Microscale spherical carbon-coated Li4Ti5O12 as ultra high power anode material for lithium batteries. Energy and Environmental Science, 2011, 4, 1345.	15.6	433
23	Anatase Titania Nanorods as an Intercalation Anode Material for Rechargeable Sodium Batteries. Nano Letters, 2014, 14, 416-422.	4.5	422
24	Bridging the academic and industrial metrics for next-generation practical batteries. Nature Nanotechnology, 2019, 14, 200-207.	15.6	420
25	Synthesis and Characterization of Li[(Ni0.8Co0.1Mn0.1)0.8(Ni0.5Mn0.5)0.2]O2with the Microscale Coreâ˜Shell Structure as the Positive Electrode Material for Lithium Batteries. Journal of the American Chemical Society, 2005, 127, 13411-13418.	6.6	417
26	Mn(II) deposition on anodes and its effects on capacity fade in spinel lithium manganateâ€“carbon systems. Nature Communications, 2013, 4, 2437.	5.8	409
27	Progress in Mechanistic Understanding and Characterization Techniques of Liâ€S Batteries. Advanced Energy Materials, 2015, 5, 1500408.	10.2	400
28	A high-energy and long-cycling lithiumâ€“sulfur pouch cell via a macroporous catalytic cathode with double-end binding sites. Nature Nanotechnology, 2021, 16, 166-173.	15.6	392
29	Graphene-Based Three-Dimensional Hierarchical Sandwich-type Architecture for High-Performance Li/S Batteries. Nano Letters, 2013, 13, 4642-4649.	4.5	385
30	A nanostructured cathode architecture for low charge overpotential in lithium-oxygen batteries. Nature Communications, 2013, 4, 2383.	5.8	379
31	In situ quantification of interphasial chemistry in Li-ion battery. Nature Nanotechnology, 2019, 14, 50-56.	15.6	373
32	Nanostructured Anode Material for Highâ€Power Battery System in Electric Vehicles. Advanced Materials, 2010, 22, 3052-3057.	11.1	359
33	Burning lithium in CS2 for high-performing compact Li2Sâ€“graphene nanocapsules for Liâ€“SÂbatteries. Nature Energy, 2017, 2, .	19.8	349
34	Building ultraconformal protective layers on both secondary and primary particles of layered lithium transition metal oxide cathodes. Nature Energy, 2019, 4, 484-494.	19.8	345
35	Holey two-dimensional transition metal oxide nanosheets for efficient energy storage. Nature Communications, 2017, 8, 15139.	5.8	343
36	State-of-the-art characterization techniques for advanced lithium-ion batteries. Nature Energy, 2017, 2, .	19.8	337

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37	(De)Lithiation Mechanism of Li/SeS_{<i>x</i>} (<i>x</i> = 0â€“7) Batteries Determined by in Situ Synchrotron X-ray Diffraction and X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2013, 135, 8047-8056.	6.6	332
38	A disordered rock salt anode for fast-charging lithium-ion batteries. Nature, 2020, 585, 63-67.	13.7	326
39	Tailored Preparation Methods of TiO₂ Anatase, Rutile, Brookite: Mechanism of Formation and Electrochemical Properties. Chemistry of Materials, 2010, 22, 1173-1179.	3.2	325
40	Injection of oxygen vacancies in the bulk lattice of layered cathodes. Nature Nanotechnology, 2019, 14, 602-608.	15.6	321
41	Understanding materials challenges for rechargeable ion batteries with in situ transmission electron microscopy. Nature Communications, 2017, 8, .	5.8	301
42	Highâ€Performance Carbonâ€LiMnPO₄ Nanocomposite Cathode for Lithium Batteries. Advanced Functional Materials, 2010, 20, 3260-3265.	7.8	298
43	Recent Advances in Flexible Zincâ€Based Rechargeable Batteries. Advanced Energy Materials, 2019, 9, 1802605.	10.2	296
44	Oxygen Release Degradation in Liâ€Ion Battery Cathode Materials: Mechanisms and Mitigating Approaches. Advanced Energy Materials, 2019, 9, 1900551.	10.2	293
45	Kinetics Tuning of Li-Ion Diffusion in Layered Li(Ni_{<i>x</i>}Mn_{<i>y</i>}Co_{<i>z</i>})O₂. Journal of the American Chemical Society, 2015, 137, 8364-8367.	6.6	292
46	Design strategies for nonaqueous multivalent-ion and monovalent-ion battery anodes. Nature Reviews Materials, 2020, 5, 276-294.	23.3	284
47	Advanced Na[Ni_{0.25}Fe_{0.5}Mn_{0.25}]O₂/Câ€“Fe₃O₄ Sodium-Ion Batteries Using EMS Electrolyte for Energy Storage. Nano Letters, 2014, 14, 1620-1626.	4.5	283
48	Disproportionation in Liâ€“O₂ Batteries Based on a Large Surface Area Carbon Cathode. Journal of the American Chemical Society, 2013, 135, 15364-15372.	6.6	282
49	Rational Design of Grapheneâ€Supported Single Atom Catalysts for Hydrogen Evolution Reaction. Advanced Energy Materials, 2019, 9, 1803689.	10.2	279
50	Developing high safety Li-metal anodes for future high-energy Li-metal batteries: strategies and perspectives. Chemical Society Reviews, 2020, 49, 5407-5445.	18.7	264
51	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.	4.5	261
52	Effectively suppressing dissolution of manganese from spinel lithium manganate via a nanoscale surface-doping approach. Nature Communications, 2014, 5, 5693.	5.8	255
53	Understanding Co roles towards developing Co-free Ni-rich cathodes for rechargeable batteries. Nature Energy, 2021, 6, 277-286.	19.8	255
54	A Novel Cathode Material with a Concentrationâ€Gradient for Highâ€Energy and Safe Lithiumâ€Ion Batteries. Advanced Functional Materials, 2010, 20, 485-491.	7.8	252

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55	Nanostructured Black Phosphorus/Ketjenblackâ€“Multiwalled Carbon Nanotubes Composite as High Performance Anode Material for Sodium-Ion Batteries. Nano Letters, 2016, 16, 3955-3965.	4.5	246
56	Elucidating anionic oxygen activity in lithium-rich layered oxides. Nature Communications, 2018, 9, 947.	5.8	241
57	Safety characteristics of Li(Ni0.8Co0.15Al0.05)O2 and Li(Ni1/3Co1/3Mn1/3)O2. Electrochemistry Communications, 2006, 8, 329-335.	2.3	238
58	Improvement of long-term cycling performance of Li[Ni0.8Co0.15Al0.05]O2 by AlF3 coating. Journal of Power Sources, 2013, 234, 201-207.	4.0	237
59	Sodium insertion in carboxylate based materials and their application in 3.6 V full sodium cells. Energy and Environmental Science, 2012, 5, 9632.	15.6	235
60	Non-Annealed Graphene Paper as a Binder-Free Anode for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2010, 114, 12800-12804.	1.5	233
61	Conflicting Roles of Nickel in Controlling Cathode Performance in Lithium Ion Batteries. Nano Letters, 2012, 12, 5186-5191.	4.5	231
62	The Effect of Oxygen Crossover on the Anode of a Liâ€“O₂ Battery using an Etherâ€Based Solvent: Insights from Experimental and Computational Studies. ChemSusChem, 2013, 6, 51-55.	3.6	231
63	Rechargeable lithium batteries and beyond: Progress, challenges, and future directions. MRS Bulletin, 2014, 39, 395-401.	1.7	226
64	Ultrasound Assisted Design of Sulfur/Carbon Cathodes with Partially Fluorinated Ether Electrolytes for Highly Efficient Li/S Batteries. Advanced Materials, 2013, 25, 1608-1615.	11.1	224
65	Challenges in Developing Electrodes, Electrolytes, and Diagnostics Tools to Understand and Advance Sodiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1702403.	10.2	221
66	The Recycling of Spent Lithium-Ion Batteries: a Review of Current Processes and Technologies. Electrochemical Energy Reviews, 2018, 1, 461-482.	13.1	215
67	Surface modification of cathode materials from nano- to microscale for rechargeable lithium-ion batteries. Journal of Materials Chemistry, 2010, 20, 7074.	6.7	214
68	High Electrochemical Performances of Microsphere C-TiO₂ Anode for Sodium-Ion Battery. ACS Applied Materials & Interfaces, 2014, 6, 11295-11301.	4.0	213
69	Solid electrolytes and interfaces in all-solid-state sodium batteries: Progress and perspective. Nano Energy, 2018, 52, 279-291.	8.2	211
70	Origin of structural degradation in Li-rich layered oxide cathode. Nature, 2022, 606, 305-312.	13.7	206
71	Flame-retardant additives for lithium-ion batteries. Journal of Power Sources, 2003, 119-121, 383-387.	4.0	204
72	The passivity of lithium electrodes in liquid electrolytes for secondary batteries. Nature Reviews Materials, 2021, 6, 1036-1052.	23.3	201

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73	In Situ Probing and Synthetic Control of Cationic Ordering in Niâ€Rich Layered Oxide Cathodes. Advanced Energy Materials, 2017, 7, 1601266.	10.2	200
74	Nitrogen-coordinated single iron atom catalysts derived from metal organic frameworks for oxygen reduction reaction. Nano Energy, 2019, 61, 60-68.	8.2	192
75	Evidence for lithium superoxide-like species in the discharge product of a Liâ€“O2 battery. Physical Chemistry Chemical Physics, 2013, 15, 3764.	1.3	188
76	Effect of the size-selective silver clusters on lithium peroxide morphology in lithiumâ€“oxygen batteries. Nature Communications, 2014, 5, 4895.	5.8	186
77	Synthesis of Porous Carbon Supported Palladium Nanoparticle Catalysts by Atomic Layer Deposition: Application for Rechargeable Lithiumâ€“O₂ Battery. Nano Letters, 2013, 13, 4182-4189.	4.5	184
78	Correlation between manganese dissolution and dynamic phase stability in spinel-based lithium-ion battery. Nature Communications, 2019, 10, 4721.	5.8	182
79	Reduction Mechanisms of Ethylene, Propylene, and Vinylethylene Carbonates. Journal of the Electrochemical Society, 2004, 151, A178.	1.3	181
80	The influence of large cations on the electrochemical properties of tunnel-structured metal oxides. Nature Communications, 2016, 7, 13374.	5.8	180
81	Tuning of Thermal Stability in Layered Li(Ni_{<i>x</i>}Mn_{<i>y</i>}Co_{<i>z</i>})O₂. Journal of the American Chemical Society, 2016, 138, 13326-13334.	6.6	178
82	Insights into the Effects of Zinc Doping on Structural Phase Transition of P2-Type Sodium Nickel Manganese Oxide Cathodes for High-Energy Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 22227-22237.	4.0	177
83	In situ fabrication of porous-carbon-supported Î±-MnO2 nanorods at room temperature: application for rechargeable Liâ€“O2 batteries. Energy and Environmental Science, 2013, 6, 519.	15.6	175
84	High Capacity O3-Type Na[Li_{0.05}(Ni_{0.25}Fe_{0.25}Mn_{0.5})_{0.95}]O₂ Cathode for Sodium Ion Batteries. Chemistry of Materials, 2014, 26, 6165-6171.	3.2	175
85	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.	3.2	173
86	High Capacity of Hard Carbon Anode in Na-Ion Batteries Unlocked by PO_{<i>x</i>} Doping. ACS Energy Letters, 2016, 1, 395-401.	8.8	172
87	Development of Microstrain in Aged Lithium Transition Metal Oxides. Nano Letters, 2014, 14, 4873-4880.	4.5	171
88	Anion-redox nanolithia cathodes for Li-ion batteries. Nature Energy, 2016, 1, .	19.8	171
89	Insights into the Na⁺ Storage Mechanism of Phosphorusâ€Functionalized Hard Carbon as Ultrahigh Capacity Anodes. Advanced Energy Materials, 2018, 8, 1702781.	10.2	170
90	Nanoarchitecture Multiâ€Structural Cathode Materials for High Capacity Lithium Batteries. Advanced Functional Materials, 2013, 23, 1070-1075.	7.8	169

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91	Increased Stability Toward Oxygen Reduction Products for Lithium-Air Batteries with Oligoether-Functionalized Silane Electrolytes. Journal of Physical Chemistry C, 2011, 115, 25535-25542.	1.5	166
92	Temperature-Sensitive Structure Evolution of Lithiumâ€“Manganese-Rich Layered Oxides for Lithium-Ion Batteries. Journal of the American Chemical Society, 2018, 140, 15279-15289.	6.6	163
93	Design of surface protective layer of LiF/FeF3 nanoparticles in Li-rich cathode for high-capacity Li-ion batteries. Nano Energy, 2015, 15, 164-176.	8.2	162
94	Dimeric [Mo₂S₁₂]^{2âˆ’} Cluster: A Molecular Analogue of MoS₂ Edges for Superior Hydrogenâ€‘Evolution Electrocatalysis. Angewandte Chemie - International Edition, 2015, 54, 15181-15185.	7.2	160
95	Reversible Redox Chemistry of Azo Compounds for Sodiumâ€‘Ion Batteries. Angewandte Chemie - International Edition, 2018, 57, 2879-2883.	7.2	159
96	Two-Dimensional Holey Co₃O₄ Nanosheets for High-Rate Alkali-Ion Batteries: From Rational Synthesis to in Situ Probing. Nano Letters, 2017, 17, 3907-3913.	4.5	158
97	3Dâ€‘Printed Cathodes of LiMn_{1âˆ’}<i>_x</i>Fe<i>_x</i>PO₄ Nanocrystals Achieve Both Ultrahigh Rate and High Capacity for Advanced Lithiumâ€‘Ion Battery. Advanced Energy Materials, 2016, 6, 1600856.	10.2	157
98	Tuning the Solid Electrolyte Interphase for Selective Liâ€•and Naâ€‘Ion Storage in Hard Carbon. Advanced Materials, 2017, 29, 1606860.	11.1	157
99	Revisiting the Corrosion of the Aluminum Current Collector in Lithium-Ion Batteries. Journal of Physical Chemistry Letters, 2017, 8, 1072-1077.	2.1	156
100	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	15.6	156
101	Liâ€“Se battery: absence of lithium polyselenides in carbonate based electrolyte. Chemical Communications, 2014, 50, 5576-5579.	2.2	155
102	Atomically dispersed Pt and Fe sites and Ptâ€“Fe nanoparticles for durable proton exchange membrane fuel cells. Nature Catalysis, 2022, 5, 503-512.	16.1	155
103	Nanostructured TiO₂ and Its Application in Lithiumâ€‘Ion Storage. Advanced Functional Materials, 2011, 21, 3231-3241.	7.8	154
104	Cationic and anionic redox in lithium-ion based batteries. Chemical Society Reviews, 2020, 49, 1688-1705.	18.7	152
105	Unique aqueous Li-ion/sulfur chemistry with high energy density and reversibility. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6197-6202.	3.3	151
106	Study on the Catalytic Activity of Noble Metal Nanoparticles on Reduced Graphene Oxide for Oxygen Evolution Reactions in Lithiumâ€“Air Batteries. Nano Letters, 2015, 15, 4261-4268.	4.5	149
107	Redox shuttles for safer lithium-ion batteries. Electrochimica Acta, 2009, 54, 5605-5613.	2.6	148
108	A Metal-Free, Lithium-Ion Oxygen Battery: A Step Forward to Safety in Lithium-Air Batteries. Nano Letters, 2012, 12, 5775-5779.	4.5	148

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109	In Operando XRD and TXM Study on the Metastable Structure Change of NaNi_{1/3}Fe_{1/3}Mn_{1/3}O₂ under Electrochemical Sodiumâ€Ion Intercalation. Advanced Energy Materials, 2016, 6, 1601306.	10.2	147
110	Challenges and Strategies to Advance Highâ€Energy Nickelâ€Rich Layered Lithium Transition Metal Oxide Cathodes for Harsh Operation. Advanced Functional Materials, 2020, 30, 2004748.	7.8	146
111	A Rigid Naphthalenediimide Triangle for Organic Rechargeable Lithiumâ€Ion Batteries. Advanced Materials, 2015, 27, 2907-2912.	11.1	145
112	Raman Evidence for Late Stage Disproportionation in a Liâ€"O₂ Battery. Journal of Physical Chemistry Letters, 2014, 5, 2705-2710.	2.1	144
113	Freestanding three-dimensional coreâ€"shell nanoarrays for lithium-ion battery anodes. Nature Communications, 2016, 7, 11774.	5.8	143
114	Insights into the structural effects of layered cathode materials for high voltage sodium-ion batteries. Energy and Environmental Science, 2017, 10, 1677-1693.	15.6	143
115	Revealing the Rate-Limiting Li-Ion Diffusion Pathway in Ultrathick Electrodes for Li-Ion Batteries. Journal of Physical Chemistry Letters, 2018, 9, 5100-5104.	2.1	143
116	Enabling high energy lithium metal batteries via single-crystal Ni-rich cathode material co-doping strategy. Nature Communications, 2022, 13, 2319.	5.8	143
117	Multi-scale study of thermal stability of lithiated graphite. Energy and Environmental Science, 2011, 4, 4023.	15.6	140
118	Enabling the high capacity of lithium-rich anti-fluorite lithium iron oxide by simultaneous anionic and cationic redox. Nature Energy, 2017, 2, 963-971.	19.8	140
119	Solvating power series of electrolyte solvents for lithium batteries. Energy and Environmental Science, 2019, 12, 1249-1254.	15.6	138
120	Cathode Material with Nanorod Structureâ€"An Application for Advanced High-Energy and Safe Lithium Batteries. Chemistry of Materials, 2013, 25, 2109-2115.	3.2	137
121	Fundamental Understanding and Material Challenges in Rechargeable Nonaqueous Liâ€"O₂ Batteries: Recent Progress and Perspective. Advanced Energy Materials, 2018, 8, 1800348.	10.2	137
122	Exploring Highly Reversible 1.5-Electron Reactions (V³⁺/V⁴⁺/V⁵⁺) in Na₃VCr(PO₄)₃ Cathode for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 43632-43639.	4.0	134
123	Stabilization of a High-Capacity and High-Power Nickel-Based Cathode for Li-Ion Batteries. CheM, 2018, 4, 690-704.	5.8	128
124	Synthetic Control of Kinetic Reaction Pathway and Cationic Ordering in Highâ€Ni Layered Oxide Cathodes. Advanced Materials, 2017, 29, 1606715.	11.1	127
125	Effects of additives on thermal stability of Li ion cells. Journal of Power Sources, 2005, 146, 116-120.	4.0	126
126	A novel concentration-gradient Li[Ni0.83Co0.07Mn0.10]O2 cathode material for high-energy lithium-ion batteries. Journal of Materials Chemistry, 2011, 21, 10108.	6.7	126

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127	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.	3.2	125
128	Solid-State Li-Ion Batteries Using Fast, Stable, Glassy Nanocomposite Electrolytes for Good Safety and Long Cycle-Life. Nano Letters, 2016, 16, 1960-1968.	4.5	124
129	Ordering Heterogeneity of [MnO6] Octahedra in Tunnel-Structured MnO2 and Its Influence on Ion Storage. Joule, 2019, 3, 471-484.	11.7	123
130	Parasitic Reactions in Nanosized Silicon Anodes for Lithium-Ion Batteries. Nano Letters, 2017, 17, 1512-1519.	4.5	122
131	Probing the Thermal-Driven Structural and Chemical Degradation of Ni-Rich Layered Cathodes by Co/Mn Exchange. Journal of the American Chemical Society, 2020, 142, 19745-19753.	6.6	122
132	Anion Solvation in Carbonate-Based Electrolytes. Journal of Physical Chemistry C, 2015, 119, 27255-27264.	1.5	121
133	Insight into Sulfur Reactions in Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2014, 6, 21938-21945.	4.0	120
134	Growth mechanism of Ni0.3Mn0.7CO3 precursor for high capacity Li-ion battery cathodes. Journal of Materials Chemistry, 2011, 21, 9290.	6.7	119
135	Silicon-Graphene Composite Anodes for High-Energy Lithium Batteries. Energy Technology, 2013, 1, 77-84.	1.8	118
136	Synthesis of Spherical Nano- to Microscale Coreâˆ'Shell Particles Li[(Ni0.8Co0.1Mn0.1)1-x(Ni0.5Mn0.5)x]O2and Their Applications to Lithium Batteries. Chemistry of Materials, 2006, 18, 5159-5163.	3.2	116
137	LixNi0.25Mn0.75Oy (0.5 â‰xâ‰ 2, 2 â‰yâ‰ 2.75) compounds for high-energy lithium-ion batteries. Journal of Materials Chemistry, 2009, 19, 4510.	6.7	116
138	Openâ€Structured V₂O₅Â·<i>n</i>H₂O Nanoflakes as Highly Reversible Cathode Material for Monovalent and Multivalent Intercalation Batteries. Advanced Energy Materials, 2017, 7, 1602720.	10.2	116
139	Structure dependent electrochemical performance of Li-rich layered oxides in lithium-ion batteries. Nano Energy, 2017, 35, 370-378.	8.2	116
140	Thermal runaway mechanism of lithium-ion battery with LiNi0.8Mn0.1Co0.1O2 cathode materials. Nano Energy, 2021, 85, 105878.	8.2	116
141	New class of nonaqueous electrolytes for long-life and safe lithium-ion batteries. Nature Communications, 2013, 4, 1513.	5.8	115
142	Cyclic carbonate for highly stable cycling of high voltage lithium metal batteries. Energy Storage Materials, 2019, 17, 284-292.	9.5	115
143	Surface Modification for Suppressing Interfacial Parasitic Reactions of a Nickel-Rich Lithium-Ion Cathode. Chemistry of Materials, 2019, 31, 2723-2730.	3.2	114
144	Cationic Ordering Coupled to Reconstruction of Basic Building Units during Synthesis of High-Ni Layered Oxides. Journal of the American Chemical Society, 2018, 140, 12484-12492.	6.6	113

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145	The Role of Ru in Improving the Activity of Pd toward Hydrogen Evolution and Oxidation Reactions in Alkaline Solutions. ACS Catalysis, 2019, 9, 9614-9621.	5.5	112
146	Selenium and Seleniumâ€“Sulfur Chemistry for Rechargeable Lithium Batteries: Interplay of Cathode Structures, Electrolytes, and Interfaces. ACS Energy Letters, 2017, 2, 605-614.	8.8	110
147	Lithium titanate hydrates with superfast and stable cycling in lithium ion batteries. Nature Communications, 2017, 8, 627.	5.8	110
148	Solar-powered electrochemical energy storage: an alternative to solar fuels. Journal of Materials Chemistry A, 2016, 4, 2766-2782.	5.2	109
149	Correlation between long range and local structural changes in Ni-rich layered materials during charge and discharge process. Journal of Power Sources, 2019, 412, 336-343.	4.0	109
150	Bringing forward the development of battery cells for automotive applications: Perspective of R&D activities in China, Japan, the EU and the USA. Journal of Power Sources, 2020, 459, 228073.	4.0	109
151	Atomic/molecular layer deposition for energy storage and conversion. Chemical Society Reviews, 2021, 50, 3889-3956.	18.7	109
152	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.	3.2	108
153	Wholeâ€Voltageâ€Range Oxygen Redox in P2â€Layered Cathode Materials for Sodiumâ€Ion Batteries. Advanced Materials, 2021, 33, e2008194.	11.1	108
154	Tuning Li₂O₂ Formation Routes by Facet Engineering of MnO₂ Cathode Catalysts. Journal of the American Chemical Society, 2019, 141, 12832-12838.	6.6	107
155	Composition-Tailored Synthesis of Gradient Transition Metal Precursor Particles for Lithium-Ion Battery Cathode Materials. Chemistry of Materials, 2011, 23, 1954-1963.	3.2	106
156	Molecular engineering towards safer lithium-ion batteries: a highly stable and compatible redox shuttle for overcharge protection. Energy and Environmental Science, 2012, 5, 8204.	15.6	105
157	Wood Carbon Based Single-Atom Catalyst for Rechargeable Znâ€“Air Batteries. ACS Energy Letters, 2021, 6, 3624-3633.	8.8	103
158	Contribution of the Structural Changes of LiNi[sub 0.8]Co[sub 0.15]Al[sub 0.05]O[sub 2] Cathodes on the Exothermic Reactions in Li-Ion Cells. Journal of the Electrochemical Society, 2006, 153, A731.	1.3	102
159	Doubleâ€Structured LiMn_{0.85}Fe_{0.15}PO₄ Coordinated with LiFePO₄ for Rechargeable Lithium Batteries. Angewandte Chemie - International Edition, 2012, 51, 1853-1856.	7.2	102
160	Improved electrochemical properties of BiOF-coated 5V spinel Li[Ni0.5Mn1.5]O4 for rechargeable lithium batteries. Journal of Power Sources, 2010, 195, 2023-2028.	4.0	101
161	Facet-Dependent Thermal Instability in LiCoO₂. Nano Letters, 2017, 17, 2165-2171.	4.5	99
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