Arumugam Manthiram

List of Publications by Year
in descending order

687	82,489	258	529
papers	citations	139 h-index	260 g-index

703	703	703	32950
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rechargeable Lithiumâ€“Sulfur Batteries. Chemical Reviews, 2014, 114, 11751-11787.	49.4	3,985
2	Lithium battery chemistries enabled by solid-state electrolytes. Nature Reviews Materials, 2017, 2, .	39.0	3,316
3	Pathways for practical high-energy long-cycling lithium metal batteries. Nature Energy, 2019, 4, 180-186.	28.8	2,331
4	Challenges and Prospects of Lithiumâ€“Sulfur Batteries. Accounts of Chemical Research, 2013, 46, 1125-1134.	15.7	2,039
5	A reflection on lithium-ion battery cathode chemistry. Nature Communications, 2020, 11, 1550.	12.8	1,636
6	Lithiumâ€“Sulfur Batteries: Progress and Prospects. Advanced Materials, 2015, 27, 1980-2006.	23.6	1,345
7	Lithiumâ€“sulphur batteries with a microporous carbon paper as a bifunctional interlayer. Nature Communications, 2012, 3, 1166.	12.8	1,325
8	An Outlook on Lithium Ion Battery Technology. ACS Central Science, 2017, 3, 1063-1069.	11.7	1,120
9	High-nickel layered oxide cathodes for lithium-based automotive batteries. Nature Energy, 2020, 5, 26-34.	28.8	1,067
10	High-voltage positive electrode materials for lithium-ion batteries. Chemical Society Reviews, 2017, 46, 3006-3059.	39.0	1,033
11	Nickelâ€Rich and Lithiumâ€Rich Layered Oxide Cathodes: Progress and Perspectives. Advanced Energy Materials, 2016, 6, 1501010.	21.5	982
12	Materials Challenges and Opportunities of Lithium Ion Batteries. Journal of Physical Chemistry Letters, 2011, 2, 176-184.	4.7	954
13	Long-life Li/polysulphide batteries with high sulphur loading enabled by lightweight three-dimensional nitrogen/sulphur-codoped graphene sponge. Nature Communications, 2015, 6, 7760.	12.8	942
14	Plating a Dendrite-Free Lithium Anode with a Polymer/Ceramic/Polymer Sandwich Electrolyte. Journal of the American Chemical Society, 2016, 138, 9385-9388.	14.1	872
15	A new approach to improve cycle performance of rechargeable lithiumâ€“sulfur batteries by inserting a free-standing MWCNT interlayer. Chemical Communications, 2012, 48, 8817.	4.1	704
16	Spinel-type lithium cobalt oxide as a bifunctional electrocatalyst for the oxygen evolution and oxygen reduction reactions. Nature Communications, 2014, 5, 3949.	12.8	592
17	Nanostructured electrode materials for electrochemical energy storage and conversion. Energy and Environmental Science, 2008, 1, 621.	31.3	564
18	A perspective on the high-voltage LiMn1.5Ni0.5O4 spinel cathode for lithium-ion batteries. Energy and Environmental Science, 2014, 7, 1339.	31.3	562

#	Article	IF	Citations
19	Mesoporous Titanium Nitrideâ€Enabled Highly Stable Lithiumâ€Sulfur Batteries. Advanced Materials, 2016, 28, 6926-6931.	23.6	555
20	Freestanding 1T MoS₂/graphene heterostructures as a highly efficient electrocatalyst for lithium polysulfides in Liâ€“S batteries. Energy and Environmental Science, 2019, 12, 344-350.	31.3	535
21	Lithium-Sulfur Batteries: Attaining the Critical Metrics. Joule, 2020, 4, 285-291.	24.0	531
22	A perspective on nickel-rich layered oxide cathodes for lithium-ion batteries. Energy Storage Materials, 2017, 6, 125-139.	18.0	509
23	Electrodeâ€“electrolyte interfaces in lithium-based batteries. Energy and Environmental Science, 2018, 11, 527-543.	31.3	504
24	Vertical Co₉S₈ hollow nanowall arrays grown on a Celgard separator as a multifunctional polysulfide barrier for high-performance Liâ€“S batteries. Energy and Environmental Science, 2018, 11, 2560-2568.	31.3	502
25	Low-Cost High-Energy Potassium Cathode. Journal of the American Chemical Society, 2017, 139, 2164-2167.	14.1	475
26	Bifunctional Separator with a Lightâ€Weight Carbonâ€Coating for Dynamically and Statically Stable Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2014, 24, 5299-5306.	16.0	471
27	Yolkâ€“Shelled C@Fe₃O₄ Nanoboxes as Efficient Sulfur Hosts for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Materials, 2017, 29, 1702707.	23.6	471
28	Hybrid Polymer/Garnet Electrolyte with a Small Interfacial Resistance for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2017, 56, 753-756.	14.2	470
29	Current Status and Future Prospects of Metalâ€“Sulfur Batteries. Advanced Materials, 2019, 31, e1901125.	23.6	467
30	Dualâ€Confined Flexible Sulfur Cathodes Encapsulated in Nitrogenâ€Doped Doubleâ€Shelled Hollow Carbon Spheres and Wrapped with Graphene for Liâ€“S Batteries. Advanced Energy Materials, 2015, 5, 1402263.	21.5	465
31	Electron-doped superconductivity at 40 K in the infinite-layer compound Sr1â€“yNdyCu02. Nature, 1991, 351, 549-551.	35.3	458
32	Atomic Structure of a Lithium-Rich Layered Oxide Material for Lithium-Ion Batteries: Evidence of a Solid Solution. Chemistry of Materials, 2011, 23, 3614-3621.	6.8	453
33	Progress in Highâ€Voltage Cathode Materials for Rechargeable Sodiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1701785.	21.5	409
34	Hydroxylated Grapheneâ€“Sulfur Nanocomposites for Highâ€Rate Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2013, 3, 1008-1012.	21.5	404
35	A strategic approach to recharging lithium-sulphur batteries for long cycle life. Nature Communications, 2013, 4, 2985.	12.8	385
36	Progress on the Critical Parameters for Lithiumâ€“Sulfur Batteries to be Practically Viable. Advanced Functional Materials, 2018, 28, 1801188.	16.0	381

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37	LnBaCo[sub 2]O[sub 5+Î´] Oxides as Cathodes for Intermediate-Temperature Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2008, 155, B385.	2.9	379
38	A review on the status and challenges of electrocatalysts in lithium-sulfur batteries. Energy Storage Materials, 2019, 20, 55-70.	18.0	378
39	Impact of Microcrack Generation and Surface Degradation on a Nickel-Rich Layered Li[Ni_{0.9}Co_{0.05}Mn_{0.05}]O₂ Cathode for Lithium-Ion Batteries. Chemistry of Materials, 2017, 29, 8486-8493.	6.8	374
40	Carbonized Eggshell Membrane as a Natural Polysulfide Reservoir for Highly Reversible Liâ€S Batteries. Advanced Materials, 2014, 26, 1360-1365.	23.6	361
41	Nanoscale design to enable the revolution in renewable energy. Energy and Environmental Science, 2009, 2, 559.	31.3	360
42	Lithium insertion into Fe2(SO4)3 frameworks. Journal of Power Sources, 1989, 26, 403-408.	7.9	359
43	High-Performance Liâ€“S Batteries with an Ultra-lightweight MWCNT-Coated Separator. Journal of Physical Chemistry Letters, 2014, 5, 1978-1983.	4.7	349
44	Understanding the Improvement in the Electrochemical Properties of Surface Modified 5 V LiMn_{1.42}Ni_{0.42}Co_{0.16}O₄ Spinel Cathodes in Lithium-ion Cells. Chemistry of Materials, 2009, 21, 1695-1707.	6.8	348
45	â€œWiringâ€•Feâ€N_xâ€Embedded Porous Carbon Framework onto 1D Nanotubes for Efficient Oxygen Reduction Reaction in Alkaline and Acidic Media. Advanced Materials, 2017, 29, 1606534.	23.6	347
46	Collapse of LiNi_{1â€“xâ€“y}Co_xMn_yO₂ Lattice at Deep Charge Irrespective of Nickel Content in Lithium-Ion Batteries. Journal of the American Chemical Society, 2019, 141, 5097-5101.	14.1	336
47	Dynamic behaviour of interphases and its implication on high-energy-density cathode materials in lithium-ion batteries. Nature Communications, 2017, 8, 14589.	12.8	334
48	A Polyethylene Glycolâ€Supported Microporous Carbon Coating as a Polysulfide Trap for Utilizing Pure Sulfur Cathodes in Lithiumâ€“Sulfur Batteries. Advanced Materials, 2014, 26, 7352-7357.	23.6	331
49	Highâ€Energy, Highâ€Rate, Lithiumâ€“Sulfur Batteries: Synergetic Effect of Hollow TiO₂â€Webbed Carbon Nanotubes and a Dual Functional Carbonâ€Paper Interlayer. Advanced Energy Materials, 2016, 6, 1501480.	21.5	328
50	A free-standing carbon nanofiber interlayer for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 4530-4538.	10.3	321
51	A Mg-Doped High-Nickel Layered Oxide Cathode Enabling Safer, High-Energy-Density Li-Ion Batteries. Chemistry of Materials, 2019, 31, 938-946.	6.8	311
52	High capacity double-layer surface modified Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode with improved rate capability. Journal of Materials Chemistry, 2009, 19, 4965.	6.7	306
53	Ambient Temperature Sodiumâ€“Sulfur Batteries. Small, 2015, 11, 2108-2114.	10.9	296
54	Highly Reversible Lithium/Dissolved Polysulfide Batteries with Carbon Nanotube Electrodes. Angewandte Chemie - International Edition, 2013, 52, 6930-6935.	14.2	295

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55	Copper-substituted Na_{0.67}Ni_{0.3â^'x}Cu_xMn_{0.7}O₂ cathode materials for sodium-ion batteries with suppressed P2â€“O2 phase transition. Journal of Materials Chemistry A, 2017, 5, 8752-8761.	10.3	294
56	Role of Oxygen Vacancies on the Performance of Li[Ni_{0.5â€“x}Mn_{1.5+x}]O₄ (x = 0, 0.05, and 0.08) Spinel Cathodes for Lithium-Ion Batteries. Chemistry of Materials, 2012, 24, 3101-3109.	6.8	290
57	A High Energy Lithiumâ€Sulfur Battery with Ultrahighâ€Loading Lithium Polysulfide Cathode and its Failure Mechanism. Advanced Energy Materials, 2016, 6, 1502459.	21.5	289
58	Understanding the Improved Electrochemical Performances of Fe-Substituted 5 V Spinel Cathode LiMn_{1.5}Ni_{0.5}O₄. Journal of Physical Chemistry C, 2009, 113, 15073-15079.	3.2	283
59	A review of composite polymer-ceramic electrolytes for lithium batteries. Energy Storage Materials, 2021, 34, 282-300.	18.0	275
60	A Facile Layerâ€byâ€Layer Approach for Highâ€Arealâ€Capacity Sulfur Cathodes. Advanced Materials, 2015, 27, 1694-1700.	23.6	273
61	Lithium insertion into Fe2(MO4)3 frameworks: Comparison of M = W with M = Mo. Journal of Solid State Chemistry, 1987, 71, 349-360.	3.0	270
62	Anodeâ€Free Full Cells: A Pathway to Highâ€Energy Density Lithiumâ€Metal Batteries. Advanced Energy Materials, 2021, 11, 2000804.	21.5	268
63	Mn versus Al in Layered Oxide Cathodes in Lithiumâ€Ion Batteries: A Comprehensive Evaluation on Longâ€Term Cyclability. Advanced Energy Materials, 2018, 8, 1703154.	21.5	267
64	Designing Advanced Lithiumâ€Based Batteries for Lowâ€Temperature Conditions. Advanced Energy Materials, 2020, 10, 2001972.	21.5	263
65	Ptâ€“M (M=Fe, Co, Ni and Cu) electrocatalysts synthesized by an aqueous route for proton exchange membrane fuel cells. Electrochemistry Communications, 2002, 4, 898-903.	4.6	262
66	Electrochemically Stable Rechargeable Lithiumâ€“Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. Advanced Energy Materials, 2015, 5, 1500738.	21.5	261
67	Toward Highly Reversible Magnesiumâ€“Sulfur Batteries with Efficient and Practical Mg[B(hfip)₄]₂ Electrolyte. ACS Energy Letters, 2018, 3, 2005-2013.	17.8	261
68	Role of Mn Content on the Electrochemical Properties of Nickel-Rich Layered LiNi_{0.8â€“x}Co_{0.1}Mn_{0.1+x}O₂ (0.0 â‰¤ x)s1 ETQq0 0 0 rgBT /O	256	
69	A Carbon-Cotton Cathode with Ultrahigh-Loading Capability for Statically and Dynamically Stable Lithiumâ€“Sulfur Batteries. ACS Nano, 2016, 10, 10462-10470.	14.9	258
70	Free-standing TiO2 nanowire-embedded graphene hybrid membrane for advanced Li/dissolved polysulfide batteries. Nano Energy, 2015, 12, 240-249.	16.0	256
71	Interfacial Chemistry in Solid-State Batteries: Formation of Interphase and Its Consequences. Journal of the American Chemical Society, 2018, 140, 250-257.	14.1	256
72	Functional surface modifications of a high capacity layered Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode. Journal of Materials Chemistry, 2010, 20, 3961.	6.7	255

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73	Comparison of Metal Ion Dissolutions from Lithium Ion Battery Cathodes. Journal of the Electrochemical Society, 2006, 153, A1760.	2.9	252
74	Modified Highâ€Nickel Cathodes with Stable Surface Chemistry Against Ambient Air for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2018, 57, 6480-6485.	14.2	250
75	A perspective on single-crystal layered oxide cathodes for lithium-ion batteries. Energy Storage Materials, 2021, 37, 143-160.	18.0	248
76	A Review of the Design of Advanced Binders for Highâ€Performance Batteries. Advanced Energy Materials, 2020, 10, 2002508.	21.5	247
77	Nitrogen-Doped Carbon Nanotube/Graphite Felts as Advanced Electrode Materials for Vanadium Redox Flow Batteries. Journal of Physical Chemistry Letters, 2012, 3, 2164-2167.	4.7	242
78	Long-Life Nickel-Rich Layered Oxide Cathodes with a Uniform Li₂ZrO₃ Surface Coating for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 9718-9725.	8.1	229
79	Highâ€Nickel NMA: A Cobaltâ€Free Alternative to NMC and NCA Cathodes for Lithiumâ€Ion Batteries. Advanced Materials, 2020, 32, e2002718.	23.6	228
80	A manganese oxyiodide cathode for rechargeable lithium batteries. Nature, 1997, 390, 265-267.	35.3	226
81	Factors Influencing the Irreversible Oxygen Loss and Reversible Capacity in Layered Li[Li1/3Mn2/3]O2â^'Li[M]O2(M = Mn0.5-yNi0.5-yCo2yand Ni1-yCoy) Solid Solutions. Chemistry of Materials, 2007, 19, 3067-3073.	6.8	223
82	Layered LnBaCo₂O_{5+Î´} perovskite cathodes for solid oxide fuel cells: an overview and perspective. Journal of Materials Chemistry A, 2015, 3, 24195-24210.	10.3	220
83	Highly Solvating Electrolytes for Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1803096.	21.5	217
84	Core-shell structured sulfur-polypyrrole composite cathodes for lithium-sulfur batteries. RSC Advances, 2012, 2, 5927.	3.7	214
85	Comparison of Microwave Assisted Solvothermal and Hydrothermal Syntheses of LiFePO₄/C Nanocomposite Cathodes for Lithium Ion Batteries. Journal of Physical Chemistry C, 2008, 112, 14665-14671.	3.2	213
86	Influence of Cationic Substitutions on the Oxygen Loss and Reversible Capacity of Lithium-Rich Layered Oxide Cathodes. Journal of Physical Chemistry C, 2011, 115, 7097-7103.	3.2	213
87	Sodium-based batteries: from critical materials to battery systems. Journal of Materials Chemistry A, 2019, 7, 9406-9431.	10.3	210
88	Role of Cation Ordering and Surface Segregation in High-Voltage Spinel LiMn_{1.5}Ni_{0.5â€“x}M_xO₄ (M = Cr, Fe, and Ga) Cathodes for Lithium-Ion Batteries. Chemistry of Materials, 2012, 24, 3720-3731.	6.8	207
89	Lithium Polyacrylate (LiPAA) as an Advanced Binder and a Passivating Agent for Highâ€Voltage Liâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1501008.	21.5	207
90	Nanostructured Host Materials for Trapping Sulfur in Rechargeable Liâ€“S Batteries: Structure Design and Interfacial Chemistry. Small Methods, 2018, 2, 1700279.	9.3	206

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91	The influence of oxygen variation on the crystal structure and phase composition of the superconductor yttrium barium copper oxide (YBa2Cu3O7-x). Journal of the American Chemical Society, 1987, 109, 6667-6669.	14.1	203
92	Synthesis of Nanocrystalline â€‰VOâ€‰2 and Its Electrochemical Behavior in Lithium Batteries. Journal of the Electrochemical Society, 1997, 144, 520-524.	2.9	202
93	Carbon-coated high capacity layered Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathodes. Electrochemistry Communications, 2010, 12, 750-753.	4.6	202
94	Metal Sulfideâ€Decorated Carbon Sponge as a Highly Efficient Electrocatalyst and Absorbant for Polysulfide in Highâ€Loading Li₂S Batteries. Advanced Energy Materials, 2019, 9, 1900584.	21.5	200
95	1D Coâ€and Nâ€Doped Hierarchically Porous Carbon Nanotubes Derived from Bimetallic Metal Organic Framework for Efficient Oxygen and Triâ€iodide Reduction Reactions. Advanced Energy Materials, 2017, 7, 1601979.	21.5	198
96	Composite membranes based on sulfonated poly(ether ether ketone) and SDBS-adsorbed graphene oxide for direct methanol fuel cells. Journal of Materials Chemistry, 2012, 22, 24862.	6.7	197
97	Sulfurâ€Embedded Activated Multichannel Carbon Nanofiber Composites for Longâ€Life, Highâ€Rate Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2017, 7, 1601943.	21.5	194
98	3D Hierarchical Coreâ€“Shell Nanostructured Arrays on Carbon Fibers as Catalysts for Direct Urea Fuel Cells. Advanced Energy Materials, 2018, 8, 1702207.	21.5	194
99	Influence of Cation Ordering and Lattice Distortion on the Chargeâ€“Discharge Behavior of LiMn_{1.5}Ni_{0.5}O₄ Spinel between 5.0 and 2.0 V. Chemistry of Materials, 2012, 24, 3610-3620.	6.8	187
100	Highâ€Performance Lithiumâ€Sulfur Batteries with a Selfâ€Supported, 3D Li₂Sâ€Doped Graphene Aerogel Cathodes. Advanced Energy Materials, 2016, 6, 1501355.	21.5	187
101	Extending the Service Life of Highâ€Ni Layered Oxides by Tuning the Electrodeâ€“Electrolyte Interphase. Advanced Energy Materials, 2018, 8, 1801957.	21.5	187
102	Effective Stabilization of a High-Loading Sulfur Cathode and a Lithium-Metal Anode in Li-S Batteries Utilizing SWCNT-Modulated Separators. Small, 2016, 12, 174-179.	10.9	181
103	Direct growth of ternary Niâ€“Feâ€“P porous nanorods onto nickel foam as a highly active, robust bi-functional electrocatalyst for overall water splitting. Journal of Materials Chemistry A, 2017, 5, 2496-2503.	10.3	180
104	Combining Nitrogenâ€Doped Graphene Sheets and MoS₂: A Unique Filmâ€“Foamâ€“Film Structure for Enhanced Lithium Storage. Angewandte Chemie - International Edition, 2016, 55, 12783-12788.	14.2	179
105	Understanding the Shifts in the Redox Potentials of Olivine LiM_{1â^'y}M_yPO₄ (M = Fe, Mn, Co, and Mg) Solid Solution Cathodes. Journal of Physical Chemistry C, 2010, 114, 15530-15540.	3.2	176
106	Long-Term Cyclability of NCM-811 at High Voltages in Lithium-Ion Batteries: an In-Depth Diagnostic Study. Chemistry of Materials, 2020, 32, 7796-7804.	6.8	176
107	Cobalt-free, high-nickel layered oxide cathodes for lithium-ion batteries: Progress, challenges, and perspectives. Energy Storage Materials, 2021, 34, 250-259.	18.0	176
108	Rational Design of Statically and Dynamically Stable Lithiumâ€“Sulfur Batteries with High Sulfur Loading and Low Electrolyte/Sulfur Ratio. Advanced Materials, 2018, 30, 1705951.	23.6	174

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109	Reining in dissolved transition-metal ions. Science, 2020, 369, 140-141.	19.6	172
110	Soft Chemistry Synthesis and Characterization of Layered Li1-xNi1-yCoyO2-Î´ (0 â‰¤ x â‰¤ 1 and 0 â‰¤ y â‰¤ 1). Chemistry of Materials, 2001, 13, 2951-2957.	6.8	171
111	A hierarchical carbonized paper with controllable thickness as a modulable interlayer system for high performance Liâ€“S batteries. Chemical Communications, 2014, 50, 4184.	4.1	171
112	High-capacity zinc-ion storage in an open-tunnel oxide for aqueous and nonaqueous Zn-ion batteries. Journal of Materials Chemistry A, 2016, 4, 18737-18741.	10.3	170
113	Performance Enhancement and Mechanistic Studies of Room-Temperature Sodiumâ€“Sulfur Batteries with a Carbon-Coated Functional Nafion Separator and a Na₂S/Activated Carbon Nanofiber Cathode. Chemistry of Materials, 2016, 28, 896-905.	6.8	169
114	Comparison of the chemical stability of the high energy density cathodes of lithium-ion batteries. Electrochemistry Communications, 2001, 3, 624-627.	4.6	168
115	Dimensionally Modulated, Single-Crystalline LiMPO₄ (M= Mn, Fe, Co, and Ni) with Nano-Thumblike Shapes for High-Power Energy Storage. Inorganic Chemistry, 2009, 48, 946-952.	4.1	167
116	Formation and Inhibition of Metallic Lithium Microstructures in Lithium Batteries Driven by Chemical Crossover. ACS Nano, 2017, 11, 5853-5863.	14.9	166
117	Molybdenum Boride as an Efficient Catalyst for Polysulfide Redox to Enable Highâ€Energyâ€Density Lithiumâ€“Sulfur Batteries. Advanced Materials, 2020, 32, e2004741.	23.6	164
118	Artificial dual solid-electrolyte interfaces based on in situ organothiol transformation in lithium sulfur battery. Nature Communications, 2021, 12, 3031.	12.8	163
119	Capacity Enhancement and Discharge Mechanisms of Roomâ€Temperature Sodiumâ€“Sulfur Batteries. ChemElectroChem, 2014, 1, 1275-1280.	3.4	162
120	MOF-derived Cobalt Sulfide Grown on 3D Graphene Foam as an Efficient Sulfur Host for Long-Life Lithium-Sulfur Batteries. IScience, 2018, 4, 36-43.	4.0	162
121	Impact of Lithium Bis(oxalate)borate Electrolyte Additive on the Performance of High-Voltage Spinel/Graphite Li-Ion Batteries. Journal of Physical Chemistry C, 2013, 117, 22603-22612.	3.2	161
122	Electrodeâ€“Electrolyte Interfaces in Lithiumâ€“Sulfur Batteries with Liquid or Inorganic Solid Electrolytes. Accounts of Chemical Research, 2017, 50, 2653-2660.	15.7	161
123	1Tâ€²â€ReS₂ Nanosheets In Situ Grown on Carbon Nanotubes as a Highly Efficient Polysulfide Electrocatalyst for Stable Liâ€“S Batteries. Advanced Energy Materials, 2020, 10, 2001017.	21.5	159
124	Cobalt oxide-coated N- and B-doped graphene hollow spheres as bifunctional electrocatalysts for oxygen reduction and oxygen evolution reactions. Journal of Materials Chemistry A, 2016, 4, 5877-5889.	10.3	158
125	Designing Lithium-Sulfur Cells with Practically Necessary Parameters. Joule, 2018, 2, 710-724.	24.0	157
126	A review on the stability and surface modification of layered transition-metal oxide cathodes. Materials Today, 2021, 46, 155-182.	17.6	157

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127	Hollow cobalt sulfide polyhedra-enabled long-life, high areal-capacity lithium-sulfur batteries. Nano Energy, 2017, 33, 124-129.	16.0	156
128	Conductive Surface Modification with Aluminum of High Capacity Layered Li[Li_{0.2}Mn_{0.54}Ni_{0.13}Co_{0.13}]O₂ Cathodes. Journal of Physical Chemistry C, 2010, 114, 9528-9533.	3.2	154
129	Factors Influencing the Electrochemical Properties of High-Voltage Spinel Cathodes: Relative Impact of Morphology and Cation Ordering. Chemistry of Materials, 2013, 25, 2890-2897.	6.8	153
130	High Capacity Surface-Modified LiCoO[sub 2] Cathodes for Lithium-Ion Batteries. Electrochemical and Solid-State Letters, 2003, 6, A16.	2.3	150
131	Ambientâ€Temperature Sodiumâ€“Sulfur Batteries with a Sodiated Nafion Membrane and a Carbon Nanofiberâ€Activated Carbon Composite Electrode. Advanced Energy Materials, 2015, 5, 1500350.	21.5	150
132	3D CoSe@C Aerogel as a Host for Dendriteâ€Free Lithiumâ€Metal Anode and Efficient Sulfur Cathode in Liâ€“S Full Cells. Advanced Energy Materials, 2020, 10, 2002654.	21.5	150
133	Enhanced Cycling Stability of Hybrid Liâ€“Air Batteries Enabled by Ordered Pd₃Fe Intermetallic Electrocatalyst. Journal of the American Chemical Society, 2015, 137, 7278-7281.	14.1	149
134	Ultra-lightweight PANiNF/MWCNT-functionalized separators with synergistic suppression of polysulfide migration for Liâ€“S batteries with pure sulfur cathodes. Journal of Materials Chemistry A, 2015, 3, 18829-18834.	10.3	148
135	A 3D Lithiophilic Mo₂Nâ€Modified Carbon Nanofiber Architecture for Dendriteâ€Free Lithiumâ€Metal Anodes in a Full Cell. Advanced Materials, 2019, 31, e1904537.	23.6	148
136	Insights into the Improved High-Voltage Performance of Li-Incorporated Layered Oxide Cathodes for Sodium-Ion Batteries. CheM, 2018, 4, 2124-2139.	11.8	147
137	Stabilized Lithiumâ€“Metal Surface in a Polysulfide-Rich Environment of Lithiumâ€“Sulfur Batteries. Journal of Physical Chemistry Letters, 2014, 5, 2522-2527.	4.7	146
138	Sulfur-Polypyrrole Composite Cathodes for Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2012, 159, A1420-A1424.	2.9	144
139	In Situ-Formed Li₂S in Lithiated Graphite Electrodes for Lithiumâ€“Sulfur Batteries. Journal of the American Chemical Society, 2013, 135, 18044-18047.	14.1	143
140	Performance Enhancement and Mechanistic Studies of Magnesiumâ€“Sulfur Cells with an Advanced Cathode Structure. ACS Energy Letters, 2016, 1, 431-437.	17.8	143
141	Understanding the Air-Exposure Degradation Chemistry at a Nanoscale of Layered Oxide Cathodes for Sodium-Ion Batteries. Nano Letters, 2019, 19, 182-188.	9.2	143
142	Li₂Sâ€Carbon Sandwiched Electrodes with Superior Performance for Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2014, 4, 1300655.	21.5	141
143	Electrochemical Energy Storage with a Reversible Nonaqueous Roomâ€Temperature Aluminumâ€“Sulfur Chemistry. Advanced Energy Materials, 2017, 7, 1700561.	21.5	141
144	TiS₂â€“Polysulfide Hybrid Cathode with High Sulfur Loading and Low Electrolyte Consumption for Lithiumâ€“Sulfur Batteries. ACS Energy Letters, 2018, 3, 568-573.	17.8	141

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145	Comparison of Ln[sub 0.6]Sr[sub 0.4]CoO[sub 3â^'Î'] (Ln=La, Pr, Nd, Sm, and Gd) as Cathode Materials for Intermediate Temperature Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2006, 153, A794.	2.9	140
146	Nanoscale networking of LiFePO4 nanorods synthesized by a microwave-solvothermal route with carbon nanotubes for lithium ion batteries. Journal of Materials Chemistry, 2008, 18, 5661.	6.7	140
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