Arumugam Manthiram

List of Publications by Year
in descending order

582 papers	77,233 citations	385 134 h-index	693 253 g-index
592 all docs	592 docs citations	592 times ranked	32155 citing authors

#	Article	IF	Citations
1	2,5<scp>â€Dimercapto</scp>â€1,3,4â€Thiadiazole (<scp>DMCT</scp>)â€Based Polymers for Rechargeable Metalâ€"Sulfur Batteries. Energy and Environmental Materials, 2023, 6, .	12.8	2
2	Nextâ€Generation Energy Harvesting and Storage Technologies for Robots Across All Scales. Advanced Intelligent Systems, 2023, 5, .	6.1	10
3	Accessing a highâ€voltage nonaqueous hybrid flow battery with a sodiumâ€methylphenothiazine chemistry and a sodiumâ€ion solid electrolyte. Energy Storage, 2022, 4, e281.	4.3	4
4	Synthesis and characterization of Ca3-xLaxCo4-yCuyO9+Î´ cathodes for intermediate temperature solid oxide fuel cells. Ceramics International, 2022, 48, 455-462.	4.8	10
5	A Selfâ€Healable Sulfide/Polymer Composite Electrolyte for Longâ€Life, Lowâ€Lithiumâ€Excess Lithiumâ€Metal Batteries. Advanced Functional Materials, 2022, 32, 2106680.	14.9	28
6	Nonaqueous hybrid redox flow energy storage with a sodiumâ€"TEMPO chemistry and a single-ion solid electrolyte separator. Energy Advances, 2022, 1, 21-27.	3.3	3
7	In Situ Grown 1Tâ€²â€MoTe₂ Nanosheets on Carbon Nanotubes as an Efficient Electrocatalyst and Lithium Regulator for Stable Lithiumâ€"Sulfur Full Cells. Advanced Energy Materials, 2022, 12, .	19.5	40
8	High-Performance Anode-Free Liâ€"S Batteries with an Integrated Li₂Sâ€"Electrocatalyst Cathode. ACS Energy Letters, 2022, 7, 583-590.	17.4	65
9	Principles and Challenges of Lithiumâ€"Sulfur Batteries. Modern Aspects of Electrochemistry, 2022, , 1-18.	0.2	1
10	High-efficiency, anode-free lithiumâ€"metal batteries with a close-packed homogeneous lithium morphology. Energy and Environmental Science, 2022, 15, 843-854.	30.8	53
11	A Facile Potential Hold Method for Fostering an Inorganic Solidâ€Electrolyte Interphase for Anodeâ€Free Lithiumâ€Metal Batteries. Angewandte Chemie - International Edition, 2022, 61, .	13.8	36
12	Creating a rechargeable world. CheM, 2022, 8, 312-318.	11.7	24
13	Delineating the Roles of Mn, Al, and Co by Comparing Three Layered Oxide Cathodes with the Same Nickel Content of 70% for Lithium-Ion Batteries. Chemistry of Materials, 2022, 34, 629-642.	6.7	38
14	Polyanionic insertion hosts for aqueous rechargeable batteries. Journal of Materials Chemistry A, 2022, 10, 6376-6396.	10.3	14
15	Moltenâ€Salt Synthesis of O3â€Type Layered Oxide Single Crystal Cathodes with Controlled Morphology towards Longâ€Life Sodiumâ€Ion Batteries. Small, 2022, 18, e2106927.	10.0	24
16	Insights into the Crossover Effects in Cells with Highâ€Nickel Layered Oxide Cathodes and Silicon/Graphite Composite Anodes. Advanced Energy Materials, 2022, 12, .	19.5	32
17	Nanostructured Composite Foils Produced Via Accumulative Roll Bonding as Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2022, 14, 11408-11414.	8.0	5
18	Operating Highâ€Energy Lithiumâ€Metal Pouch Cells with Reduced Stack Pressure Through a Rational Lithiumâ€Host Design. Advanced Energy Materials, 2022, 12, .	19.5	10

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19	Covalent Organic Framework as an Efficient Protection Layer for a Stable Lithiumâ€Metal Anode. Angewandte Chemie, 2022, 134, .	2.0	8
20	Foldable Solidâ€State Batteries Enabled by Electrolyte Mediation in Covalent Organic Frameworks. Advanced Materials, 2022, 34, e2201410.	21.0	57
21	Thiometallate-mediated polysulfide chemistry and lithium stabilization for stable anode-free lithium-sulfur batteries. Cell Reports Physical Science, 2022, 3, 100808.	5.6	8
22	Covalent Organic Framework as an Efficient Protection Layer for a Stable Lithiumâ€Metal Anode. Angewandte Chemie - International Edition, 2022, 61, .	13.8	45
23	Ethylene Carbonateâ€Free Electrolytes for Stable, Safer Highâ€Nickel Lithiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	27
24	Editorsâ€™ Choiceâ€”A Fruitful Transition of John B. Goodenough from Oxford to the University of Texas at Austin. Journal of the Electrochemical Society, 2022, 169, 034520.	2.9	1
25	Fast and Simple Ag/Cu Ion Exchange on Cu Foil for Anode-Free Lithium-Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 17454-17460.	8.0	21
26	Lithium Trithiocarbonate as a Dualâ€Function Electrode Material for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	19.5	17
27	Surface Stabilization with Fluorine of Layered Ultrahigh-Nickel Oxide Cathodes for Lithium-Ion Batteries. Chemistry of Materials, 2022, 34, 4514-4522.	6.7	9
28	Protection of Cobalt-Free LiNiO₂ from Degradation with Localized Saturated Electrolytes in Lithium-Metal Batteries. ACS Energy Letters, 2022, 7, 2165-2172.	17.4	37
29	Correction to â€œSurface Stabilization with Fluorine of Layered Ultrahigh-Nickel Oxide Cathodes for Lithium-Ion Batteriesâ€ Chemistry of Materials, 2022, 34, 5748-5748.	6.7	0
30	Stable Sodium-Based Batteries with Advanced Electrolytes and Layered-Oxide Cathodes. ACS Applied Materials & Interfaces, 2022, 14, 28865-28872.	8.0	11
31	John Goodenoughâ€™s 100th Birthday Celebration: His Impact on Science and Humanity. ACS Energy Letters, 2022, 7, 2404-2406.	17.4	2
32	Mechanical Pulverization of Co-Free Nickel-Rich Cathodes for Improved High-Voltage Cycling of Lithium-Ion Batteries. ACS Applied Energy Materials, 2022, 5, 6996-7005.	5.1	12
33	Paving Pathways Toward Longâ€Life Graphite/LiNi_{0.5}Mn_{1.5}O₄ Full Cells: Electrochemical and Interphasial Points of View. Advanced Functional Materials, 2022, 32, .	14.9	19
34	Anodeâ€Free Lithiumâ€“Sulfur Cells Enabled by Rationally Tuning Lithium Polysulfide Molecules. Angewandte Chemie, 2022, 134, .	2.0	5
35	Anodeâ€Free Lithiumâ€“Sulfur Cells Enabled by Rationally Tuning Lithium Polysulfide Molecules. Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
36	Anodeâ€Free Full Cells: A Pathway to Highâ€Energy Density Lithiumâ€Metal Batteries. Advanced Energy Materials, 2021, 11, 2000804.	19.5	232

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37	Ambientâ€Temperature Allâ€Solidâ€State Sodium Batteries with a Laminated Composite Electrolyte. Advanced Functional Materials, 2021, 31, 2002144.	14.9	63
38	An in-depth understanding of the effect of aluminum doping in high-nickel cathodes for lithium-ion batteries. Energy Storage Materials, 2021, 34, 229-240.	18.0	120
39	Cobalt-free, high-nickel layered oxide cathodes for lithium-ion batteries: Progress, challenges, and perspectives. Energy Storage Materials, 2021, 34, 250-259.	18.0	145
40	A review of composite polymer-ceramic electrolytes for lithium batteries. Energy Storage Materials, 2021, 34, 282-300.	18.0	233
41	Self-supported MoO2/MoS2 nano-sheets embedded in a carbon cloth as a binder-free substrate for high-energy lithiumâ€“sulfur batteries. Electrochimica Acta, 2021, 367, 137482.	5.2	24
42	Evoking High-Donor-Number-Assisted and Organosulfur-Mediated Conversion in Lithiumâ€“Sulfur Batteries. ACS Energy Letters, 2021, 6, 224-231.	17.4	51
43	Allâ€Solidâ€State Sodium Batteries with a Polyethylene Glycol Diacrylateâ€“Na₃Zr₂Si₂PO₁₂ Composite Electrolyte. Advanced Energy and Sustainability Research, 2021, 2, 2000061.	5.8	19
44	Toward sustainable batteries. Nature Sustainability, 2021, 4, 379-380.	23.7	27
45	Implications of <i>in situ</i> chalcogen substitutions in polysulfides for rechargeable batteries. Energy and Environmental Science, 2021, 14, 5423-5432.	30.8	43
46	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Oxygen Evolution Reactions: Nano-Co3O4-Deposited La0.5Sr0.5MnO3 via Infiltration. Molecules, 2021, 26, 277.	3.8	5
47	A review on infiltration techniques for energy conversion and storage devices: from fundamentals to applications. Sustainable Energy and Fuels, 2021, 5, 5024-5037.	4.9	18
48	In Honor of Nobel Laureate John B. Goodenough. Advanced Energy Materials, 2021, 11, 2002817.	19.5	1
49	Essential effect of the electrolyte on the mechanical and chemical degradation of LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ cathodes upon long-term cycling. Journal of Materials Chemistry A, 2021, 9, 2111-2119.	10.3	14
50	Delineating the Lithiumâ€“Electrolyte Interfacial Chemistry and the Dynamics of Lithium Deposition in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2021, 11, 2003293.	19.5	39
51	Unifying the clustering kinetics of lithium polysulfides with the nucleation behavior of Li₂S in lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 13242-13251.	10.3	28
52	Advances and Prospects of Highâ€Voltage Spinel Cathodes for Lithiumâ€Based Batteries. Small Methods, 2021, 5, e2001196.	8.6	63
53	Crossover Effects in Batteries with Highâ€Nickel Cathodes and Lithiumâ€Metal Anodes. Advanced Functional Materials, 2021, 31, 2010267.	14.9	65
54	Unraveling the Intricacies of Residual Lithium in High-Ni Cathodes for Lithium-Ion Batteries. ACS Energy Letters, 2021, 6, 941-948.	17.4	86

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55	Sustainable Battery Materials for Nextâ€Generation Electrical Energy Storage. Advanced Energy and Sustainability Research, 2021, 2, 2000102.	5.8	52
56	Zinc-Doped High-Nickel, Low-Cobalt Layered Oxide Cathodes for High-Energy-Density Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 15324-15332.	8.0	84
57	Layered lithium cobalt oxide cathodes. Nature Energy, 2021, 6, 323-323.	39.5	75
58	High-Energy-Density, Long-Life Lithiumâ€“Sulfur Batteries with Practically Necessary Parameters Enabled by Low-Cost Feâ€“Ni Nanoalloy Catalysts. ACS Nano, 2021, 15, 8583-8591.	14.6	75
59	Stabilizing ultrahigh-nickel layered oxide cathodes for high-voltage lithium metal batteries. Materials Today, 2021, 44, 15-24.	14.2	53
60	Tailoring Lithium Polysulfide Coordination and Clustering Behavior through Cationic Electrostatic Competition. Chemistry of Materials, 2021, 33, 3457-3466.	6.7	31
61	A perspective on single-crystal layered oxide cathodes for lithium-ion batteries. Energy Storage Materials, 2021, 37, 143-160.	18.0	210
62	Artificial dual solid-electrolyte interfaces based on in situ organothiol transformation in lithium sulfur battery. Nature Communications, 2021, 12, 3031.	12.8	138
63	Ionic Liquid (IL) Laden Metalâ€“Organic Framework (IL-MOF) Electrolyte for Quasi-Solid-State Sodium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 24662-24669.	8.0	42
64	Intrinsic Li Distribution in Layered Transition-Metal Oxides Using Low-Dose Scanning Transmission Electron Microscopy and Spectroscopy. Chemistry of Materials, 2021, 33, 4638-4650.	6.7	7
65	Wet-CO₂ Pretreatment Process for Reducing Residual Lithium in High-Nickel Layered Oxides for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 27096-27105.	8.0	23
66	A review on the stability and surface modification of layered transition-metal oxide cathodes. Materials Today, 2021, 46, 155-182.	14.2	132
67	Inâ€Depth Analysis of the Degradation Mechanisms of Highâ€Nickel, Low/Noâ€Cobalt Layered Oxide Cathodes for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2100858.	19.5	79
68	Rationally Designed PEGDAâ€“LLZTO Composite Electrolyte for Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 30703-30711.	8.0	51
69	Dysprosium doping effects on perovskite oxides for air and fuel electrodes of solid oxide cells. Journal of Power Sources, 2021, 497, 229873.	7.8	11
70	Elemental Foil Anodes for Lithium-Ion Batteries. ACS Energy Letters, 2021, 6, 2666-2672.	17.4	55
71	Unveiling the Stabilities of Nickelâ€Based Layered Oxide Cathodes at an Identical Degree of Delithiation in Lithiumâ€Based Batteries. Advanced Materials, 2021, 33, e2100804.	21.0	62
72	Lithium-based polyanion oxide cathodes. Nature Energy, 2021, 6, 844-845.	39.5	25

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73	Rational Design of Coating Ions via Advantageous Surface Reconstruction in Highâ€Nickel Layered Oxide Cathodes for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2101112.	19.5	58
74	Understanding Znâ€Ion Insertion Chemistry through Nonaqueous Electrochemical Investigation of 2Hâ€NbSe 2. Advanced Materials Interfaces, 2021, 8, 2100878.	3.7	3
75	Influence of Calendering on the Electrochemical Performance of LiNi_{0.9}Mn_{0.05}Al_{0.05}O₂ Cathodes in Lithium-Ion Cells. ACS Applied Materials & Interfaces, 2021, 13, 42898-42908.	8.0	37
76	Understanding the Limited Electrochemical Zn-Ion Insertion into 2H-MoS2 and 2H-WS2: A Case Study of 2H-NbS2. ACS Applied Energy Materials, 2021, 4, 8849-8856.	5.1	3
77	Long-life LiNi0.5Mn1.5O4/graphite lithium-ion cells with an artificial graphite-electrolyte interface. Energy Storage Materials, 2021, 43, 499-508.	18.0	22
78	Surface-Modified Na(Ni_{0.3}Fe_{0.4}Mn_{0.3})O₂ Cathodes with Enhanced Cycle Life and Air Stability for Sodium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 11735-11742.	5.1	31
79	A Cobaltâ€and Manganeseâ€Free Highâ€Nickel Layered Oxide Cathode for Longâ€Life, Safer Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, .	19.5	79
80	Role of Electrolyte in Overcoming the Challenges of LiNiO₂ Cathode in Lithium Batteries. ACS Energy Letters, 2021, 6, 3809-3816.	17.4	34
81	Aluminumâ€“Silicon Alloy Foils as Low-Cost, Environmentally Friendly Anodes for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 14515-14524.	6.7	17
82	Stable Dendrite-Free Sodiumâ€“Sulfur Batteries Enabled by a Localized High-Concentration Electrolyte. Journal of the American Chemical Society, 2021, 143, 20241-20248.	13.7	71
83	Long-Term Cycling of a Mn-Rich High-Voltage Spinel Cathode by Stabilizing the Surface with a Small Dose of Iron. ACS Applied Energy Materials, 2021, 4, 13297-13306.	5.1	7
84	An In-Depth Analysis of the Transformation of Tin Foil Anodes during Electrochemical Cycling in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 120544.	2.9	4
85	Nitrate additives for lithium batteries: Mechanisms, applications, and prospects. EScience, 2021, 1, 108-123.	41.6	98
86	Thermodynamics of Antisite Defects in Layered NMC Cathodes: Systematic Insights from High-Precision Powder Diffraction Analyses. Chemistry of Materials, 2020, 32, 1002-1010.	6.7	44
87	Toward Long-Life, Ultrahigh-Nickel Layered Oxide Cathodes for Lithium-Ion Batteries: Optimizing the Interphase Chemistry with a Dual-Functional Polymer. Chemistry of Materials, 2020, 32, 759-768.	6.7	14
88	A Unique Singleâ€Ion Mediation Approach for Crossoverâ€Free Nonaqueous Redox Flow Batteries with a Na + â€Ion Solid Electrolyte. Small Methods, 2020, 4, 1900697.	8.6	7
89	Tailoring the Pore Size of a Polypropylene Separator with a Polymer Having Intrinsic Nanoporosity for Suppressing the Polysulfide Shuttle in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2020, 10, 1902872.	19.5	72
90	Longâ€Life, Highâ€Rate Lithiumâ€“Sulfur Cells with a Carbonâ€Free VN Host as an Efficient Polysulfide Adsorbent and Lithium Dendrite Inhibitor. Advanced Energy Materials, 2020, 10, 1903241.	19.5	120

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91	High-Energy, Single-Ion-Mediated Nonaqueous Zinc-TEMPO Redox Flow Battery. ACS Applied Materials & Interfaces, 2020, 12, 48654-48661.	8.0	13
92	Towards more environmentally and socially responsible batteries. Energy and Environmental Science, 2020, 13, 4087-4097.	30.8	74
93	Industrialization of Layered Oxide Cathodes for Lithiumâ€Ion and Sodiumâ€Ion Batteries: A Comparative Perspective. Energy Technology, 2020, 8, 2000723.	3.8	36
94	A Review of the Design of Advanced Binders for Highâ€Performance Batteries. Advanced Energy Materials, 2020, 10, 2002508.	19.5	202
95	Enabling high areal capacity for Co-free high voltage spinel materials in next-generation Li-ion batteries. Journal of Power Sources, 2020, 473, 228579.	7.8	55
96	Impact of Residual Lithium on the Adoption of High-Nickel Layered Oxide Cathodes for Lithium-Ion Batteries. Chemistry of Materials, 2020, 32, 9479-9489.	6.7	81
97	Synthesis of LiNiO₂ at Moderate Oxygen Pressure and Long-Term Cyclability in Lithium-Ion Full Cells. ACS Applied Materials & Interfaces, 2020, 12, 52826-52835.	8.0	51
98	Degradation of Highâ€Nickelâ€Layered Oxide Cathodes from Surface to Bulk: A Comprehensive Structural, Chemical, and Electrical Analysis. Advanced Energy Materials, 2020, 10, 2001035.	19.5	66
99	Xanthogen Polysulfides as a New Class of Electrode Material for Rechargeable Batteries. Advanced Energy Materials, 2020, 10, 2001658.	19.5	36
100	Long-Life, Ultrahigh-Nickel Cathodes with Excellent Air Storage Stability for High-Energy Density Lithium-Based Batteries. Chemistry of Materials, 2020, 32, 7413-7424.	6.7	49
101	Designing Advanced Lithiumâ€Based Batteries for Lowâ€Temperature Conditions. Advanced Energy Materials, 2020, 10, 2001972.	19.5	225
102	Complementary Effects of Mg and Cu Incorporation in Stabilizing the Cobalt-Free LiNiO₂ Cathode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 43653-43664.	8.0	46
103	Synthesis Control of Layered Oxide Cathodes for Sodium-Ion Batteries: A Necessary Step Toward Practicality. Chemistry of Materials, 2020, 32, 8431-8441.	6.7	31
104	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.	19.5	140
105	Direct Urea Fuel Cells: Recent Progress and Critical Challenges of Urea Oxidation Electrocatalysis. Advanced Energy and Sustainability Research, 2020, 1, 2000015.	5.8	45
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.	6.7	152
107	Molybdenum Boride as an Efficient Catalyst for Polysulfide Redox to Enable Highâ€Energyâ€Density Lithiumâ€“Sulfur Batteries. Advanced Materials, 2020, 32, e2004741.	21.0	148
108	Recent Advances in Lithiumâ€“Carbon Dioxide Batteries. Small Structures, 2020, 1, 2000027.	12.0	57

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109	A Progress Report on Metalâ€“Sulfur Batteries. Advanced Functional Materials, 2020, 30, 2004084.	14.9	78
110	Delineating the Capacity Fading Mechanisms of Na(Ni_{0.3}Fe_{0.4}Mn_{0.3})O₂ at Higher Operating Voltages in Sodium-Ion Cells. Chemistry of Materials, 2020, 32, 7389-7396.	6.7	25
111	Proton-Induced Disproportionation of Jahnâ€“Teller-Active Transition-Metal Ions in Oxides Due to Electronically Driven Lattice Instability. Journal of the American Chemical Society, 2020, 142, 21122-21130.	13.7	35
112	Free Radicals: A Marriage of Solid State Science and Electrochemistry. Electrochemical Society Interface, 2020, 29, 34-35.	0.4	0
113	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.	19.5	145
114	An Artificial Protective Coating toward Dendriteâ€Free Lithiumâ€Metal Anodes for Lithiumâ€“Sulfur Batteries. Energy Technology, 2020, 8, 2000348.	3.8	19
115	Anode-free, Lean-Electrolyte Lithium-Sulfur Batteries Enabled by Tellurium-Stabilized Lithium Deposition. Joule, 2020, 4, 1121-1135.	24.0	126
116	Recent Progress in High Donor Electrolytes for Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2001456.	19.5	112
117	A Metal Organic Framework Derived Solid Electrolyte for Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2001285.	19.5	77
118	<i>In-Situ</i> Assembled VS₄ as a Polysulfide Mediator for High-Loading Lithiumâ€“Sulfur Batteries. ACS Energy Letters, 2020, 5, 1177-1185.	17.4	120
119	Insights into the Cathodeâ€“Electrolyte Interphases of High-Energy-Density Cathodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 16451-16461.	8.0	60
120	A reflection on lithium-ion battery cathode chemistry. Nature Communications, 2020, 11, 1550.	12.8	1,398
121	Reining in dissolved transition-metal ions. Science, 2020, 369, 140-141.	12.6	134
122	Freestanding vanadium nitride nanowire membrane as an efficient, carbon-free gas diffusion cathode for Liâ€“CO2 batteries. Energy Storage Materials, 2020, 31, 95-104.	18.0	20
123	Multivalent-Ion versus Proton Insertion into Battery Electrodes. ACS Energy Letters, 2020, 5, 2367-2375.	17.4	81
124	Single Ni Atoms and Clusters Embedded in Nâ€Doped Carbon â€œTubes on Fibersâ€•Matrix with Bifunctional Activity for Water Splitting at High Current Densities. Small, 2020, 16, e2002511.	10.0	38
125	Lithium degradation in lithiumâ€“sulfur batteries: insights into inventory depletion and interphasial evolution with cycling. Energy and Environmental Science, 2020, 13, 2501-2514.	30.8	88
126	Highâ€Nickel NMA: A Cobaltâ€Free Alternative to NMC and NCA Cathodes for Lithiumâ€Ion Batteries. Advanced Materials, 2020, 32, e2002718.	21.0	205

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127	Influence of Lithium Polysulfide Clustering on the Kinetics of Electrochemical Conversion in Lithiumâ€“Sulfur Batteries. Chemistry of Materials, 2020, 32, 2070-2077.	6.7	76
128	Lithium-Sulfur Batteries: Attaining the Critical Metrics. Joule, 2020, 4, 285-291.	24.0	489
129	A Long Cycle Life, All-Solid-State Lithium Battery with a Ceramicâ€“Polymer Composite Electrolyte. ACS Applied Energy Materials, 2020, 3, 2916-2924.	5.1	73
130	Rational Design of a Laminated Dual-Polymer/Polymerâ€“Ceramic Composite Electrolyte for High-Voltage All-Solid-State Lithium Batteries. , 2020, 2, 317-324.		59
131	High-nickel layered oxide cathodes for lithium-based automotive batteries. Nature Energy, 2020, 5, 26-34.	39.5	940
132	A mediator-ion nitrobenzene - iodine nonaqueous redox flow battery with asymmetric solvents. Energy Storage Materials, 2020, 29, 266-272.	18.0	12
133	A pair of metal organic framework (MOF)-derived oxygen reduction reaction (ORR) and oxygen evolution reaction (OER) catalysts for zinc-air batteries. Materials Today Energy, 2020, 16, 100405.	4.7	58
134	Unveiling the Charge Storage Mechanism in Nonaqueous and Aqueous Zn/Na₃V₂(PO₄)₂F₃ Batteries. ACS Applied Energy Materials, 2020, 3, 5015-5023.	5.1	32
135	The critical effect of water content in the electrolyte on the reversible electrochemical performance of Znâ€“VPO₄F cells. Journal of Materials Chemistry A, 2020, 8, 8262-8267.	10.3	19
136	Lattice doping regulated interfacial reactions in cathode for enhanced cycling stability. Nature Communications, 2019, 10, 3447.	12.8	116
137	A 3D Lithiophilic Mo₂Nâ€Modified Carbon Nanofiber Architecture for Dendriteâ€Free Lithiumâ€Metal Anodes in a Full Cell. Advanced Materials, 2019, 31, e1904537.	21.0	139
138	Efficient Liâ€“CO₂ Batteries with Molybdenum Disulfide Nanosheets on Carbon Nanotubes as a Catalyst. ACS Applied Energy Materials, 2019, 2, 8685-8694.	5.1	40
139	A Comprehensive Analysis of the Interphasial and Structural Evolution over Longâ€Term Cycling of Ultrahighâ€Nickel Cathodes in Lithiumâ€Ion Batteries. Advanced Energy Materials, 2019, 9, 1902731.	19.5	131
140	Less pore equals more. Nature Energy, 2019, 4, 908-909.	39.5	9
141	Energy Spotlight. ACS Energy Letters, 2019, 4, 2763-2769.	17.4	1
142	Insights into Boron-Based Polyanion-Tuned High-Nickel Cathodes for High-Energy-Density Lithium-Ion Batteries. Chemistry of Materials, 2019, 31, 8886-8897.	6.7	71
143	A Mg-Doped High-Nickel Layered Oxide Cathode Enabling Safer, High-Energy-Density Li-Ion Batteries. Chemistry of Materials, 2019, 31, 938-946.	6.7	288
144	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.	30.8	510

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145	Ethylene Carbonateâ€Free Electrolytes for Highâ€Nickel Layered Oxide Cathodes in Lithiumâ€Ion Batteries. Advanced Energy Materials, 2019, 9, 1901152.	19.5	78
146	A Li₂Sâ€TiS₂â€Electrolyte Composite for Stable Li₂Sâ€Based Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1901397.	19.5	41
147	Sodium-Sulfur Batteries with a Polymer-Coated NASICON-type Sodium-Ion Solid Electrolyte. Matter, 2019, 1, 439-451.	10.0	75
148	A High-Performance All-Solid-State Sodium Battery with a Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (oxide)â€“Na<sub 1, 132-138.		81
149	Insights into the Improved Chemical Stability against Water of LiF-Incorporated Layered Oxide Cathodes for Sodium-Ion Batteries. , 2019, 1, 89-95.		39
150	A review on the status and challenges of electrocatalysts in lithium-sulfur batteries. Energy Storage Materials, 2019, 20, 55-70.	18.0	349
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